

June 03, 2020

California Department of Water Resources

901 P Street, Room 213

Sacramento, CA 94236

Submitted electronically to: Craig Altare

Online submission: <https://sgma.water.ca.gov/portal/#gsp>

Re: Comments on the Eastern Tule Groundwater Sustainability Plan

Dear Department of Water Resources:

The Community Water Center recommends that DWR find that the Groundwater Sustainability Plan (GSP), submitted by the Eastern Tule Groundwater Sustainability Agency (ETGSA) on January 31, 2020, is incomplete per 23 CCR §355.2 (e)(2) and require that the all of the deficiencies identified in this comment letter are cured or addressed within 180 days, or otherwise we urge DWR to reject the plan as inadequate. We note a few exceptions to the 180-day cure period and for those issues recommend DWR require the GSA during the 180-day cure period to develop a plan, including timelines and funding sources, for how it will resolve these deficiencies prior to its 5-year update. If the GSA fails to cure the deficiencies, DWR should find the plan inadequate per 23 CCR §355.2(e)(3). This will allow DWR the ability to measure the GSA's progress towards implementing the solution. We discuss these timelines in our detailed individual recommendations for each section of the GSP.

We Believe the GSP Will Result in Significant Negative Impacts to Safe Water Access for Vulnerable Communities and Domestic Well Owners Unless Changes Are Made to the GSP:

The comments and recommendations contained in this letter are provided to DWR in an effort to protect the drinking water sources of the vulnerable, and often underrepresented, groundwater users that CWC works with. These beneficial users of groundwater include: domestic well owners, public water systems, state small water systems and severely disadvantaged (SDAC) or disadvantaged communities (DAC). We hope these comments will ensure that the GSP will:

1. Understand DAC's unique vulnerabilities and adequately address their drinking water needs.¹
2. Avoid developing and implementing groundwater management actions that are likely to cause negative impacts to drinking water supplies or cause a disparate impact on low-income households and communities of color.
3. Achieve the objectives required by the Sustainable Groundwater Management Act (SGMA) regulations and California's Human Right to Drinking Water law (HR2W) which recognizes that "every human being has the right to safe, clean, affordable, and accessible water adequate for

¹ See Water Code §10723.2 "The groundwater sustainability agency shall consider the interests of all beneficial uses and users of groundwater...including... Disadvantaged communities."



human consumption, cooking, and sanitary purposes.”² While we recognize that the GSAs themselves are not subject to the HR2W, the Department is and must consider how the GSP impacts access to safe, clean, and affordable drinking water.

4. Achieve the goals required by SGMA without negatively affecting the implementation of the Newsom Administration's newly passed Safe and Affordable Drinking Water Fund (SB200), by limiting or preventing further contamination of drinking water sources or the dewatering of wells that serve low-income communities of color.

CWC's Substantial Involvement in the ETGSA Planning Process:

Community Water Center is a 501(c)(3) nonprofit that acts as a catalyst for community-driven water solutions through organizing, education, and advocacy. CWC seeks to build and enhance leadership capacity and local community power around water issues, create a regional movement for water justice in California, and enable every community to have access to safe, clean, and affordable drinking water.

CWC has been deeply involved in reviewing several GSPs submitted within the San Joaquin Valley and on the Central Coast. As part of our efforts within the ETGSA boundaries, CWC hosted two community workshops and gave presentations to one small water district within the ETGSA. The first community workshop took place in Ducor on October 20, 2019 during which two local farmers participated in the review of the proposed GSP. The second community meeting took place in Porterville on October 30, 2019. Additionally, CWC collaborated with ETGSA on a workshop held at Porterville College on November 13, 2019. CWC also gave a presentation to the Ducor Community Services District on November 19, 2019. Comments and reflections from these workshops and presentations are included throughout this comment letter.

CWC also conducted our own in-depth technical reviews of the draft and final GSPs in parallel with the community outreach described above. Our technical review focused on whether or not the submitted GSP complied with the letter and legislative intent of the SGMA statute as well as whether it violated any California law, case law, or regulations. We also undertook a drinking water well impact analysis that looked critically at the minimum thresholds (MTs), measurable objectives (MOs), and undesirable results (URs) in the draft-GSP. In addition, and most importantly, we collected community feedback at our meetings to find out if beneficial users of groundwater for drinking and other domestic uses thought the GSA was meeting their needs.

CWC Submitted All the Comments in this Letter to the GSA Directly as Part of the GSP Review Process:

Through the work described above we identified numerous deficiencies in the draft GSP and submitted a comment letter detailing our findings and recommendations to the ETGSA on December 13, 2019. Very few comments were addressed in a substantial manner.

ETGSA included an additional appendix in their final submitted GSP, which presents public comments in a table format with a column for GSA responses to the comments.³ Although ETGSA did respond to many of our recommendations, very few of our necessary recommendations are reflected in revisions to

² Water Code §106.3.

³ ETGSA GSP, Appendix 8-B, Comment Response Summary, pgs. 753-772.

the final ET GSP, and most of those were minor and have not resolved the most critical deficiencies. In too many instances the GSA adopts a “wait and see” approach to groundwater management that is not sufficiently protective of the most vulnerable groundwater users, and which cannot survive DWR review under both SGMA and other California law.

The ETGSA’s lack of meaningful response to public comment does not provide confidence that the concerns raised by CWC were taken seriously. This issue should be considered by DWR when making the determination of “whether the Agency has adequately responded to comments that raise credible technical or policy issues with the Plan,” pursuant to 23 CCR §355.4(b)(10).

CWC Recommends that DWR Find the GSP to be Incomplete and Require Changes or Else Find it Inadequate:

We recommend that DWR find the ETGSA GSP incomplete pending the adoption of the recommendations in this comment letter. Underlying each of our recommendations is a legal, equitable, and/or technical deficiency that we believe will imperil access to clean, safe, and affordable drinking water for communities within the ETGSA boundaries.⁴ Based on the immediacy of the danger to access and the time it would reasonably take to adopt or implement the recommendation, we assigned a deadline by which DWR should require ETGSA compliance:

- **For deficiencies that immediately imperil access and can be cured within the 180-day cure period:** DWR should find the plan incomplete per 23 CCR §355.2(e)(2)(B) and require the GSA to resubmit the GSP with the adopted recommendation within the 180-day cure period. If the GSA fails to do so, DWR should find the plan inadequate. We assigned this deadline to most of our recommendations, either because (1) the deficiency itself immediately imperils access to groundwater for drinking purposes, (2) the deficiency represents bad or incomplete data that in turn leads to an immediate imperilment of access, or (3) the deficiency is a GSA policy decision that will harm access if implemented.
- **For deficiencies that immediately imperil access and cannot be reasonably cured within the 180-day cure period:** When a deficiency immediately imperils access to groundwater for drinking purposes but a particular recommendation cannot reasonably be adopted or implemented within the 180-day cure period (e.g., the GSA must conduct analysis which requires lengthy data collection), we urge DWR to find the plan incomplete per 23 CCR §355.2(e)(2)(B) and require the GSA to resubmit the GSP acknowledging the deficiency along with a plan for resolving it as quickly as possible, no later than the Plan’s 5-year update; this should include identifying a funding source for the solution where appropriate. If the ETGSA fails to acknowledge the deficiency and adopt a solution within the 180-day cure period DWR should find the plan inadequate per 23 CCR §355.2(e)(3)(C).
- **Deficiencies that will take 5 or more years to fix whether or not they immediately imperil access:** Our technical review of the ETGSA GSP did not identify any deficiencies that would reasonably take longer than 5 years to cure. That said, a GSP containing such a deficiency must be found inadequate under 23 CCR 355.2(e)(3)(C), because the issue would not be solved, or a plan as to how to solve it created, within the 180-day cure period, and the ETGSA is not located in a low or very low priority basin that would allow for a longer timeframe. Furthermore, in many

⁴ Where we did not feel a deficiency actually imperiled access to clean, safe, and affordable drinking water we did not generally make a comment.

cases such a long timeframe would render the underlying issue too speculative; the GSP would not be in substantial compliance under CCR §355.4(b) such that DWR could evaluate the likelihood of the plan to achieve the GSA’s sustainability goals.⁵ Note that this effectively creates a 5-year deadline for any GSA adopted plan to cure a deficiency beyond the 180-day cure period, whether or not the deficiency immediately imperils access. We recommend that if DWR discovers such a deficiency – whether or not the GSP includes a detailed plan for resolving it – during its independent analysis it should find the GSP inadequate.

Summary of Some Major Eastern Tule GSP Deficiencies and Recommendations

Although any deficiency in a GSP that imperils access to drinking water is unacceptable, we would like to draw DWR’s attention to the sections of the GSP that contain the most critical issues that we have identified and expand upon in our substantive comments following this cover letter:

- **Sustainability Goal**

Revise the sustainability goal to better reflect the needs of drinking water groundwater users. The expressed sustainability goal is inconsistent with the level of detail provided in the GSP given that the Tule Subbasin is in a state of critical overdraft. The adopted sustainability goal only addresses reduction of groundwater storage and does not adequately describe how the GSP will avoid the other three applicable Undesirable Results within the plan area (Chronic Lowering of Groundwater Levels, Degraded Groundwater Quality, and Land Subsidence). Also, the ETGSA’s sustainability goal lacks any specific references to information from the basin setting, instead attempting to satisfy the letter of the law without sufficient explanation of how it intends to achieve sustainable groundwater management for all beneficial users.

- **Basin Setting & Water Budget:**

The GSA must revise the water budget to address inconsistencies between documents and to clarify if MOs/MTs were accurately developed. There are discrepancies in the reported subbasin sustainable yield value within the GSP and accompanying documents, and the description of how that sustainable yield will be allocated to the individual GSAs and groundwater users within the subbasin lacks clarity and consistency. The P&MAs identified in the ETGSA GSP are not consistent with those identified in the Tule Subbasin Setting document which serve as the basis for the future water budget projections and development of water level MOs and MTs. Therefore, it is unclear if the projected MOs/MTs are accurately represented in the documents. We identified numerous other sections that needed clarification or revision in order to create a usable basin setting. Once again, this lack of clear information belies any notion that the GSA is substantially compliant per 23 CCR 355.4(b).

- **Sustainable Management Criteria, Groundwater Levels:**

The MOs and MTs selected by the GSP will likely cause many wells in the GSA boundary area to be partially or completely dewatered, yet the GSA chose these sustainability indicators without having done a drinking water well impact analysis to justify them. CWC conducted its own analysis which suggested significant impacts and our concerns were included in our comments to the GSA. We believe the GSA’s lack of such a study materially affects the ability of DWR to

⁵ See 23 CCR §355.4(b).

evaluate the likelihood of the Plan’s success, because it does not contain the “sufficiently thorough and reasonable analysis,” necessary to place the plan in substantial compliance with 23 CCR §355.4(b). The missing ETGSA report also makes it impossible for DWR to ascertain if the Plan as a whole is sufficiently protective of diverse drinking water users per the enumerated considerations found in 23 CCR §355.4(b). We recommend that DWR critically review the MOs, MTs, and URs chosen by the GSA.

- **Sustainable Management Criteria, Groundwater Quality:**

The GSP flaunts DWR regulations by failing to quantify Sustainable Management Criteria for groundwater quality and must be completely re-worked in accordance with SGMA. The documents do not clearly and consistently identify the water quality MOs/MTs, and omit some potentially relevant contaminants of concern. Both MOs and MTs will allow groundwater quality to degrade relative to “10-yr baseline conditions,” without regard for regulatory maximum contaminant levels (MCLs) for drinking water. This implies that ever-increasing contaminant concentrations will remain within the MTs as long as the rate of increase stays within a 15% increase over the running average. The GSP does not explain how ever-increasing water quality concentrations are sustainable and protective of beneficial users and uses. We also recommended that DWR require the GSA to undertake an economic impact assessment of potential contamination due to the problematic groundwater level MOs and MTs. Finally, because falling water levels can concentrate contaminants, or draw in contaminant plumes, the issue of quality and quantity are inherently intertwined, and without this information the GSP is not substantially compliant with 23 CCR §355.4(b). The same study should consider the effects of P&MAs, which can entrain contaminants.

- **Projects and Management Actions:**

Revise the GSP to identify key policies that will be incorporated into the groundwater accounting system that will ensure that DACs, small community water systems, and domestic well users will have access to safe, clean, affordable, and accessible drinking water. Because the actions described in the draft GSP may negatively impact drinking water users, we strongly suggested that the draft GSP be updated to contain a robust mitigation program with an identified funding structure to protect these groundwater users. We continue to believe that failure to include a mitigation program could lead to widespread violations of Water Code §106 and the HR2W if drinking water users are negatively affected by P&MAs. This failure could threaten the success of the State Water Board’s Safe and Affordable Fund for Equity and Resilience (SAFER) program, which was not designed to be a SGMA backstop for GSPs which fail to address impacts to drinking water sources.

- **Monitoring Network:**

We recommended that DWR require ETGSA to revise this section to provide the best available information on the monitoring wells network, presented clearly so that the public can evaluate how the network addresses their drinking water needs. They should also have expanded the water quality monitoring network with currently available data to better capture impacts to domestic wells and state and local small water systems who rely on the shallow aquifer; without doing so they cannot claim to be in substantial compliance with 23 CCR §355.4(b).



Thank you for reviewing this letter and for the consideration of our comments on the submitted ETGSA GSP. We urge you to act to protect access to drinking water for vulnerable communities that will be impacted by this GSP by either deeming the plan incomplete and requiring the deficiencies identified in this comment letter to be cured within 180 days, or otherwise fail the plan. Please do not hesitate to contact us with any questions or concerns. We would also welcome the opportunity to meet to further discuss these important sets of issues.

Sincerely,

Ryan Jensen

CC:

- The Honorable California Governor Gavin Newsom
- The Honorable Senate Pro Tem Toni Atkins, California State Senate
- The Honorable Speaker Anthony Rendon, California State Assembly
- The Honorable Secretary Jared Blumenfeld, California Environmental Protection Agency
- The Honorable Secretary Wade Crowfoot, California Natural Resources Agency
- The Honorable Board Chair E. Joaquin Esquivel, State Water Resources Control Board
- Deputy Cabinet Secretary Christine Hironaka, Governor's Office
- Deputy Secretary and Special Counsel for Water Policy Kristin Peer, California Environmental Protection Agency
- Deputy Secretary for Environmental Justice, Tribal Affairs and Border Relations Yana Garcia, California Environmental Protection Agency.



Table of Contents

Beneficial Users of the Groundwater Resource	8
Priority of Beneficial Users	8
Disparate Impacts	8
The Human Right to Water	9
GSP Sections 1 & 2: Introduction to the ETGSA GSP & Agency Information	10
Sustainability Goal	10
GSP Section 3: Description of Plan Area	12
GSP Section 4: Basin Setting	14
Hydrogeologic Conceptual Model & Water Budget	14
Management Areas	16
GSP Section 5: Sustainable Management Criteria	19
Groundwater Levels	20
Groundwater Quality	25
GSP Section 6: Monitoring Network	31
GSP Section 7: Projects and Management Actions	34
GSP Section 8: Notices and Communications	40
GSP Remedies: Summary Table	44

Beneficial Users of the Groundwater Resource

The ETGSA GSP is complex, and contains a large number of individual deficiencies that this comment letter will discuss. In many instances a single statute, regulation, or legal theory is implicated by multiple sections of the GSP. To avoid repetition in the presentation of these comments, we have organized some of the most broadly applicable legal arguments into this section. What all of these arguments have in common is that they show either a misapprehension or willful violation of the correct priority of beneficial users under established California law. In plain language, these are deficiencies that require DWR censure because the ETGSA GSP favors agricultural interests over the interests of groundwater users for drinking water purposes.

Priority of Beneficial Users

The “reasonable and beneficial use” doctrine, to which SGMA expressly must comply,⁶ is codified in the California Constitution.⁷ It requires that, “the water resources of the State be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of use of water be prevented, and that the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare.”⁸ DWR and the State Water Board must ensure that GSPs’ water management is consistent with the reasonable and beneficial use doctrine.⁹ In doing so, DWR and the Board must follow the Legislature’s directive to prioritize beneficial users of water for domestic purposes over beneficial users for irrigation.¹⁰

This prerogative is expressed in Water Code §106, which makes it the, “established policy of this State that the use of water for domestic purposes is the highest use of water and that the next highest use is for irrigation.” The reasonable and beneficial use doctrine applies here given the negative impacts of the GSP on groundwater supply and quality, which are likely to unreasonably interfere with the use of groundwater for drinking water and other domestic uses. As the ETGSA GSP authorizes unreasonable use (because water will go to lower priority users first), it conflicts with the reasonable and beneficial use doctrine, California Constitution, and Water Code §106.

Disparate Impacts

The disproportionate negative outcomes for DACs and domestic well users compared to other users (e.g., agriculture) caused by the ETGSA GSP’s sustainable management criteria (not only the sustainability goal, but also the MOs, MTs, and URs) are suggestive of a civil rights violation under a theory of disparate impact.

The legal concept of disparate impact protects people of color and other protected classes from rules

⁶ Water Code §10720.1(b).

⁷ Cal Const, Art. X §2.

⁸ Cal Const, Art. X §2; see also *United States v. State Water Resources Control Bd.* (1986) 182 Cal.App.3d 82, 105 [“...superimposed on those basic principles defining water rights is the overriding constitutional limitation that the water be used as reasonably required for the beneficial use to be served.”].)

⁹ Water Code §275; *Light v. State Water Resources Control Board*, 226 Cal. App. 4th 1463, 1482-83 (2014).

¹⁰ Water Code §106; *United States v. State Water Resources Control Board*, 182 Cal. App. 3d 82, 103 (1986).



and regulations that are discriminatory in their effect, even when those rules and regulations were made without discriminatory intent. This protection applies to individuals in multiple contexts: the best known are housing, education, and employment. However, disparate impacts is a legal theory with broad applicability, and could easily encompass the willful regional dewatering of drinking water wells that disproportionately affects communities of color, DAC residents, and rural domestic well owners compared to agricultural well operators. There are defenses to a disparate impact claim, such as demonstrating that a policy is the only possible method for achieving a certain goal. ETGSA justifies their sustainability goal and sustainable management criteria based upon the localized decision-making authority it has under SGMA, yet these criteria result in unjustified disparate impacts. ETGSA must demonstrate that the goals of SGMA can be achieved while avoiding disparate impacts to the most vulnerable populations in the GSP area.

The GSP regulations clearly establish that a failure to consider all beneficial uses and users of groundwater undermines the likelihood that a basin will reach its sustainability goal.¹¹ Civil rights-based class actions caused by region-wide well dewatering would indeed endanger the GSP's future legal viability.

The Human Right to Water

DWR is bound by Water Code §106.3, the Human Right to Water (HR2W) when it reviews GSPs, both upon initial review and at each 5-year periodic review.¹² The HR2W creates a human right to safe, clean, affordable, and accessible water for domestic purposes, and requires state agencies to consider this right when, "revising, adopting, or establishing policies, regulations, and grant criteria when those policies, regulations, and criteria are pertinent to the uses of water described in this section."¹³ The plain text of §106.3(b) makes it unquestionable that the GSP review process is an act by DWR that falls under the auspices of the HR2W. As such, this right must be given consideration by DWR when it reviews the GSP.¹⁴ If DWR cannot articulate how the dictate of §106.3 is embodied in the approved GSP, DWR must find the plan incomplete and identify the deficiency and require it to be resolved before approving the final plan.¹⁵ As this comment letter will show, there are numerous deficiencies across the ETGSA GSP that conflict with the HR2W and therefore must be cured in order to comply.

As a final note, a GSP may not be approved by DWR if it fails to comply with SGMA requirements.¹⁶ In all of its actions, a GSA must, "consider the interests of," an enumerated list of types of beneficial users, including disadvantaged communities and all drinking water users (those reliant on domestic wells and community water systems).¹⁷ This is a freestanding requirement within SGMA that is itself grounds for DWR to decline to approve a plan.¹⁸ This consideration must encompass California law, at a minimum, and thus it must acknowledge Water Code §106's prioritization of domestic water users as described above. This is also grounds for finding the plan incomplete or inadequate.

¹¹ 23 CCR §355.4(b)(4).

¹² Water Code §106.3(a).

¹³ Water Code §106.3.

¹⁴ Water Code §106.3(b).

¹⁵ 23 CCR §355.2(e)(3)(B).

¹⁶ 23 CCR §355.4.

¹⁷ Water Code §10723.2; 23 CCR §355.4(b).

¹⁸ Water Code §10723.2; 23 CCR §355.4(b).

GSP Sections 1 & 2: Introduction to the ETGSA GSP & Agency Information

Sustainability Goal

SGMA and Regulatory Requirements

SGMA defines a “sustainability goal” as “the existence and implementation of one or more groundwater sustainability plans that achieve sustainable groundwater management by identifying and causing the implementation of measures targeted to ensure that the applicable basin is operated within its sustainable yield.”¹⁹

The regulations expand this by requiring the sustainability goal to include:²⁰

1. “A description of the sustainability goal, including information from the basin setting used to establish the sustainability goal;
2. A discussion of the measures that will be implemented to ensure that the basin will be operated within its sustainable yield; and
3. An explanation of how the sustainability goal is likely to be achieved within 20 years of Plan implementation and is likely to be maintained through the planning and implementation horizon.”

The ETGSA GSP

The sustainability goal of the ETGSA GSP is written as follows: “Through a coordinated effort with the other GSAs within the Subbasin, a Coordination Agreement has been prepared describing the common Tule Subbasin Setting, Subbasin Sustainability Goal, definitions for undesirable results, and basin wide monitoring... Generally, the Tule Subbasin sustainability goal is to achieve no long-term reduction in groundwater storage by year 2040, by implementing a series of projects and management actions among the member agencies, stakeholders, and landowners during this planning horizon.”²¹ The referenced common Tule Subbasin sustainability goal appears in the Coordination Agreement as follows: “...the Sustainability Goal of the Tule Subbasin is defined as the absence of undesirable results, accomplished by 2040 and achieved through a collaborative, Subbasin-wide program of sustainable groundwater management by the various Tule Subbasin GSAs.”²²

The GSP provides an estimated cost for the 20-year implementation of the Plan of \$1.35 million per year (\$27 million over the entire 20 years). Proposed funding sources include three funding mechanisms: (1) contributions of ETGSA’s constituent members; (2) grant funding; and (3) taxes or assessments levied in conformity with Proposition 218 and/or Proposition 26. The relative proportions that will come from each source and details of how they propose to collect revenue is not discussed.

Recommendations for DWR

¹⁹ Water Code §10721(u).

²⁰ See 23 CCR §354.24.

²¹ ETGSA GSP, Sec 1.2

²² ETGSA GSP, Appendix A, Tule Subbasin Coordination Agreement, Sec. 4.2, pg. 819.

The ETGSA's sustainability goal is vague and mirrors the language of the SGMA regulations, avoiding any specific references to information from the basin setting. The GSA appears to have attempted to draft reductionist language that would satisfy the letter of the law, but which does not include a sufficient explanation of how it intends to achieve sustainable groundwater management for all beneficial users. In particular it ignores the priority of beneficial users for drinking water purposes as set out in Water Code §106. The ETGSA GSP insists on staying entirely within the realm of the SGMA statute, ignoring the existence of other California laws when considering Sustainable Management Criteria (SMC), which collectively encompass a description of the sustainability goal, quantifiable values for measurable objectives (MOs) and minimum thresholds (MTs), and a quantifiable description of undesirable results (URs) for each sustainability indicator.

As noted above, the estimated costs of plan implementation in this section are very general and lack a description of how they were calculated or will contribute towards compliance with the stated sustainability goal. Similarly, the proposed funding sources are not discussed with sufficient detail to determine the relative contributions of the potential sources.

In light of the above, we recommend that DWR find the Plan incomplete pending the adoption of the following suggestions within the 180-day cure period before approval. If these changes cannot be completed within 180 days or the GSA refuses to make them, we recommend that DWR reject the Plan as inadequate:

- **Revise the definition of the sustainability goal to acknowledge Water Code §106 and §106.3 (HR2W) as a foundational consideration of the GSP.** This revision will help guide further revisions to other sections of the GSP in order to bring it into compliance with the HR2W's bedrock principles.
- **Identify how the estimated cost of implementation was calculated.** The GSP contains an inadequate discussion of how the costs of implementation were calculated, what is included, and how much is allocated to each item. . In our comment letter on the draft GSP we recommended including the line-item calculations as an appendix to the chapter. In addition, the GSA's use of the term, "capital expenditures" is vague and presumably could encompass a large range of costs, including the construction of additional monitoring wells, and implementation of projects and management actions. More specific information about these items is needed in order for stakeholders and members of the public to evaluate and provide feedback.
- **Clearly identify how the mechanisms will collect revenue from the relative funding sources.** It is not clear how the three funding mechanisms identified in the EKGSA Plan would be utilized, nor the relative proportions of total funding which would be collected from each. For some stakeholders, including Ducor CSD, budgeting for potential and uncertain fees or assessments would be a hardship that would impact their ability to predictably provide drinking water to the community at an affordable rate. In addition, there has been a great deal of discussion at meetings of the Stakeholder and Executive committees with regards to a proposal to implement a fee structure for groundwater users to utilize transitional pumping quantities in excess of Sustainable Yield during the 20-year ramp-down from current overdraft conditions to long-term sustainability. While the details of this funding mechanism for the GSA may not yet be final, it's omission in the GSP represents a lack of transparency.

GSP Section 3: Description of Plan Area

SGMA and Regulatory Requirements

Water Code §10723.2 requires that a GSA, “shall consider the interests of all beneficial uses and users of groundwater, as well as those responsible for implementing groundwater sustainability plans. These interests include, but are not limited to, all of the following...(i) Disadvantaged communities, including, but not limited to, those served by private domestic wells or small community water systems.”

Further, 23 CCR §354.8 requires the Plan Area section of a GSP to contain, “a description of the geographic areas covered, including the following information...(f)(1) A summary of general plans and land use plans governing the basin...”

The ETGSA GSP

The description of the plan area generally complies with the requirements of the regulations. However, as discussed below the Plan can be improved by clarifying the descriptions of the drinking water users in the area. This is especially important given the complex structure of the GSP and the regulatory requirement for the use of, “plain language” specific in this section of the GSP.²³

It is additionally noted that the GSP lacks any plan for coordinating with Tulare County regarding its well permitting program.

Recommendations for DWR

In order to develop a GSP that addresses the needs of all beneficial users, it is critical that the location of DACs and domestic well communities, and their water needs, are explicitly addressed early on in the GSP. A GSP with a flawed Plan Area section will necessarily contain flawed analysis of appropriate SMCs, so that a failure to define an adequate Plan Area has a cascading effect across the GSP. The same effect will hamper all efforts to make adjustments to other parts of the GSP. As noted above, this language helps clarify the Plan Area section, and should be required per 23 CCR §354.4(w).

We recommend that DWR find the GSP incomplete pending the adoption of a framework for communicating with Tulare County regarding their well permitting and replacement processes. Because well permitting in Tulare County uses a ministerial system for approving new wells and well replacements, new wells can be sunk in the aquifer without any consideration for the effects of those wells on beneficial users. This is a critical weakness in the GSP, because the GSP does not explain how it will curtailing pumping that threatens to cause groundwater levels to reach MTs or cause URs. The GSP contains no explanation of when it would consider taking action to end groundwater pumping that threatens the sustainability goal; thus, the amount of water pumped in the GSA is dependent in great

²³ 23 CCR §351(w); §354.4 (“Each Plan shall include the following general information: (a) An executive summary written in plain language that provides an overview of the Plan and description of groundwater conditions in the basin.”); §354.8.

part on the number of new wells approved by the county. How the GSA works with the county to control new wells and re-drilling of old wells is absolutely essential to achieving its sustainability goals.

The danger posed to sustainable groundwater management by unlimited permitting of new wells has recently been acknowledged by the Legislature. Water Code §13807 (SB 252) was enacted in 2017, and required cities and counties overlying critically overdrafted basins to make information on new well permits available both to the public and to GSAs.²⁴ The information made public includes the location, depth, capacity, estimated pumping rate, and anticipated pumping schedule of the well, amongst numerous other characteristics needed to quantify the effect of the new well on the aquifer.²⁵ The statute acknowledges that, “greater transparency is needed to provide existing pumpers and water users in critically overdrafted basins with important information about the use of shared groundwater resources, specifically regarding applications for new well permits.” The statute was expressly written to support GSAs achieve sustainability in the management of groundwater and to protect these efforts against widespread permitting of new wells.

A lack of coordination with the county on well permitting makes estimates of future pumping speculative. This violates the GSA’s duty to all of the enumerated users of Water Code §10723.2, because all of their water use is impacted by potential future well licenses, and ignoring this fails to give the due “consideration” required by the statute. Furthermore, the lack of information or even consideration of future well licensing places the GSA outside of substantial compliance under 23 CCR §355.4(b) for two reasons. First, the potential for unlimited future well licensing makes the Plan unlikely to attain its sustainability goal. And second, the lack of clarity about future well licensing, and therefore pumping volume, materially affects DWR’s ability to analyze the likelihood of success for the GSP. Both of these theories are independently grounds for finding the GSP incomplete or inadequate.

In light of the above, we recommend that DWR find the ETGSA GSP incomplete pending the adoption of the following changes to the ETGSA GSP. If DWR finds that that these recommendations cannot be reasonably adopted within the 180-day period, DWR should require that revisions to the GSP be made within the 180-day cure period which commit the ETGSA to addressing those shortcomings within the first five years of the Plan, and laying out a clear plan to accomplish that goal. If these changes cannot be completed within 180 days or ETGSA fails to make them, we recommend that DWR reject the Plan as incomplete:

- **Revise Table 3-4 and Figure 3-11 to include Poplar-Cotton Center and Richgrove.** Although the service areas for these two community water systems are located in neighboring GSAs, both are immediately adjacent to the ETGSA boundaries, and portions of the Census-Designated Places Census-Designated Places (CDPs) as outlined in the American Community Survey appear to lay within the territory of ETGSA. Both communities could potentially be impacted by cross-boundary impacts of management decisions within ETGSA. Consider listing both with an asterisk/footnote to specify these caveats, and recommend including some historical context as to the reasons and decision to modify the GSA boundaries and transfer Richgrove CSD to the Delano Earlimart Irrigation District (DEID) GSA.

²⁴ Water Code §13807 is inoperative as of January 30, 2020, but will not be repealed until January 1, 2021.

²⁵ Water Code §13808(1)(1-11).



- **Revise §3 to include and identify locations of domestic well communities.** Adequately characterizing the small water systems, DACs, and domestic well communities in the GSA is important in order to better identify areas that are vulnerable to groundwater level or groundwater quality challenges in order for the ETGSA's actions to respond accordingly.
- **Revise §3.8.3 to include a map of existing percolation ponds and groundwater recharge sites and define responsibilities for maintaining quality standards.** The GSA should identify the location of these projects in relation to drinking water beneficial users in order for DWR, communities, and member agencies to evaluate potential benefits and/or negative impacts to drinking water supplies. In addition, the GSP identifies groundwater recharge and banking policies for the member agencies of Porterville Irrigation District²⁶ and Saucelito Irrigation District;²⁷ we note that both irrigation districts make the user responsible for water quality standards without sufficient clarity on how this responsibility is monitored or how users would be held accountable for violations.

GSP Section 4: Basin Setting

Hydrogeologic Conceptual Model & Water Budget

SGMA and Regulatory Requirements

Each GSP must contain a, "description of the basin setting," per 23 CCR §354. The description of the basin setting (hereafter, "basin setting") must contain a hydrogeologic conceptual model, a summary of groundwater conditions, a water budget, and a description of management areas.²⁸

The hydrogeologic conceptual model contains, "the information about the physical setting and characteristics of the basin and current conditions of the basin that shall be part of each Plan, including the identification of data gaps and levels of uncertainty, which comprise the basin setting that serves as the basis for defining and assessing reasonable SMCs and projects and management actions."²⁹

The water budget provides, "an accounting and assessment of the total annual volume of groundwater and surface water entering and leaving the basin, including historical, current and projected water budget conditions, and the change in the volume of water stored. Water budget information shall be reported in tabular and graphical form."³⁰

The ETGSA GSP

The hydrogeologic conceptual model and water budget of the submitted GSP are missing key information on data and assumptions that should have been used in the development of the basin setting. There are numerous deficiencies that are listed below in our recommendations.

Recommendation to DWR

SGMA requires a GSP to quantify the basin in sufficient detail in order to build local understanding of how historic changes have affected the six sustainability indicators in the basin.³¹ The Legislature intended that this information would be used to predict how these same variables would affect and

²⁶ ETGSA GSP, pg. 150, subsection 9.

²⁷ ETGSA GSP, pg. 156, subsection 9.

²⁸ 23 CCR §354.12-20.

²⁹ 23 CCR §354.14.

³⁰ 23 CCR §354.18.

³¹ 23 CCR §354.18.

guide future management actions.³² GSAs must provide adequate water budget information to demonstrate that the GSP adheres to all SGMA and GSP regulation requirements, and that the GSA has the ability to achieve the sustainability goal within 20 years, and maintain sustainability over the 50 year planning and implementation horizon.

DWR incorporated the Legislature’s intent of this in 23 CCR §355.4(b), which requires DWR to find a plan incomplete or inadequate if the plan is out of substantial compliance with this section, meaning either that the plan is so flawed that it is unlikely to succeed in achieving its sustainability goals, or that the GSA’s underlying analysis is so speculative or without sufficient detail so that that DWR’s ability to analyze the plan’s likelihood for success is materially affected.

The same regulation, 23 CCR §355.4(b), contains a separate analysis through which DWR must determine if the GSP is likely to succeed at its sustainability goal. This analysis must take into consideration enumerated issues, one of which is to identify reasonable measures and schedules to eliminate data gaps.³³

As shown below in our bulleted recommendations, the hydrogeologic conceptual model and water budget of the submitted GSP are missing key information on data and assumptions. The failure to include this information in the GSP places the ETGSA outside of substantial compliance under both prongs of 23 CCR §355.4(b). Additionally, the description of the water budget in the GSP is not fully transparent and it is therefore unclear if it meets all requirements of 23 CCR §354.18. Per 23 CCR §354.18(a), “water budget information shall be reported in tabular and graphical form;” however, as identified below, many water budget components and assumptions are not presented in transparent tabular format. Without the additional detail and clarifications identified below, it does not appear that the public and DWR can make the required determination of “whether the Plan includes a reasonable assessment of overdraft conditions and includes reasonable means to mitigate overdraft, if present,” per 23 CCR §355.4(b)(6).

We recommend that DWR find the ETGSA GSP to be incomplete pending the adoption of the following recommendations to improve the Basin Setting. If DWR finds that one of our suggestions cannot reasonably be made in 180 days, DWR should require that revisions to the GSP be included within the 180-day cure period committing the ETGSA to address these shortcomings, and laying out a clear plan to accomplish the goal, to including a funding mechanism if appropriate. If the GSA fails to comply with these recommendations, DWR should find the Plan inadequate.

- **Provide more clarity on the methods used to develop the historical water budget.** It appears that the water budget was developed using both a spreadsheet approach and the Groundwater Flow Model (GFM); however, this is not made clear in the Plan. The Tule Subbasin Coordination Agreement does not specify whether a spreadsheet model, the numerical GFM, or another method was used to develop the historical water budget. If different methods were used to develop the historical water budget than the GFM-projected water budget, the Coordination Agreement and/or the GSP should clearly identify the methods and how they relate to each other in terms of common assumptions, uncertainties, and inherent differences. With regard to calculation of the Sustainable Yield (SY), more clarity is required regarding pre-existing water

³² Water Code §10733.2.

³³ 23 CCR §355.4(b).

rights and imported water deliveries, such as individual Managed Aquifer Recharge (MAR) projects. These quantities will be accounted for by each GSA in the Tule Subbasin, and the budget components specific to the ETGSA should be included in an appendix to this section.

- **As part of the assessment of groundwater extraction as required by 23 CCR §354.18(b)(3), the GSP should include specific information on groundwater used by public water suppliers.** As stated in §3.8.1 of the ETGSA GSP, there are at least 17 active public water systems in the GSA.³⁴ Water budget results show municipal groundwater pumping averages 14,600 AFY for the historical period.³⁵ This is less than 8% of the agricultural pumping in the ETGSA area. Specific data from these agencies are not reported and it cannot be determined if groundwater pumping from all municipal water suppliers is accounted for in the reported total of municipal pumping. Groundwater pumping for rural residential users was considered negligible in the GSP proper, compared to other pumping sources due to the low population density and was therefore not considered in the GSP water budget.
- **Provide more detail on the projected water budget, including all assumptions and time series used in the GFM. The GSP should also discuss in detail how the increase in the projected municipal pumping was determined so the public can assess the accuracy of the municipal pumping specified in the projected water budget.** The projected future water budget was developed using the GFM that incorporated planned P&MAs and the effects of climate change. Under the Water Budget municipal pumping increases from 14,700 AFY to 27,500 AFY during the projection period but the reason for this increase in municipal pumping is not described.
- **Clarify information regarding known groundwater quality.** This section provides very little useful information for specific stakeholders to assess what is currently known about local groundwater quality conditions. §4.2.6.4 includes a general description of nitrate concentrations but it is not clear if these concentrations are reported as (NO₃-N) or (NO₃-NO₃).³⁶ Additionally the section refers to active cleanup sites but lacks specific information about their locations or contaminants of concern, instead instructing readers to refer to the Coordination Agreement. Especially with relation to drinking water users, areas of concern should be mapped and contaminants of concern clearly listed in the GSP itself.

Management Areas

SGMA and Regulatory Requirements

23 CCR §354.20 allows a GSA to create management areas within a basin if, “the Agency has determined that creation of management areas will facilitate implementation of the Plan. Management areas may define different minimum thresholds and be operated to different measurable objectives than the basin at large, provided that undesirable results are defined consistently throughout the basin.”

The ETGSA GSP

The ETGSA is divided into six management areas, broken down by “type”:³⁷

- Community management areas

³⁴ ETGSA GSP, Table 3-2, p. 198.

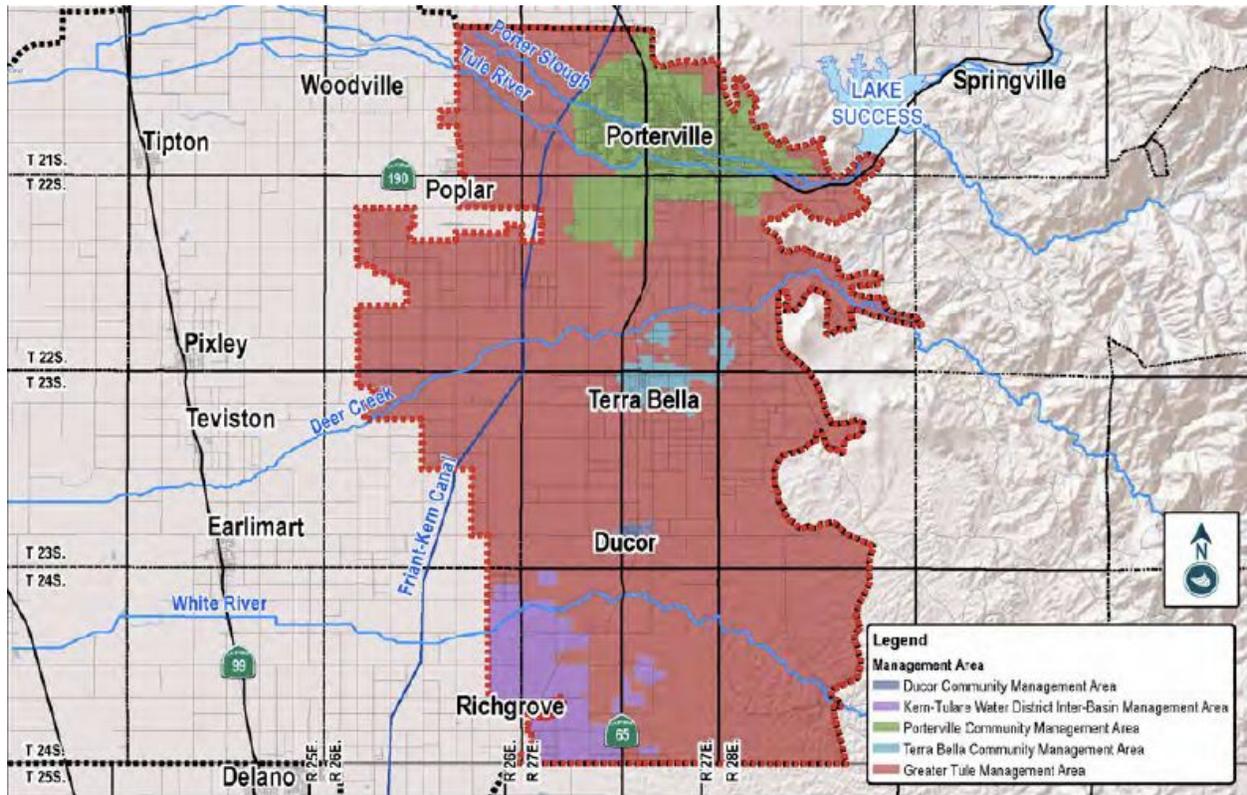
³⁵ See ETGSA GSP, Appendix A, Tule Subbasin Setting, Appendix B, Tables 1a and 2, pgs. 1276, 1278.

³⁶ ETGSA GSP, §4.2.6.4, pg. 178.

³⁷ ETGSA GSP, §4.5, pg. 200-201.

- Porterville Community Management Area
- Terra Bella Community Management Area
- Ducar Community Management Area.
- Cross-Boundary Management Areas
 - Kern-Tulare Water District Management Area
- Subsidence Management Area
 - Friant-Kern Canal Subsidence Management Area³⁸
- Great Tule Management Area
 - Great Tule Management Area

The GSP includes a useful map that shows the boundaries of the management areas, reproduced here.³⁹



Recommendations to DWR

The selection of the management areas by type is a good decision on the part of ETGSA, as it can potentially aid in the adoption of SMCs for the management zones that are protective of beneficial users located therein.

³⁸ Friant-Kern Canal Subsidence Management Area is inconsistently described throughout the GSP, so that it is unclear whether the GSA intends to adopt it or not. We discuss this issue in detail below.

³⁹ ETGSA GSP, Figure 4-1, pg. 201.

However, 23 CCR §355.4(b)(1) requires that when determining whether the GSP is likely to meet the sustainability goal, DWR must consider whether, “the assumptions, criteria, findings, and objectives, including the sustainability goal, undesirable results, minimum thresholds, measurable objectives, and interim milestones are reasonable and supported by the best available information and best available science.” The lack of information on beneficial uses and users within each management area precludes DWR approving the proposed management areas without some clarification on and the filling of these identified data gaps. Additionally, as discussed below there are major inconsistencies in the Plan regarding the proposed Friant-Kern Canal Subsidence Management Area (FKCSMA). Given the importance of the subsidence issues near the Friant-Kern Canal, the lack of clarity on the likelihood of successfully meeting sustainability goals for subsidence clearly places the ETGSA out of substantial compliance as required by 23 CCR §355.4(b).

We recommend that DWR find the ETGSA GSP to be incomplete pending the adoption of the following recommendations to improve the management area section. If DWR finds that one of our suggestions cannot reasonably be made in 180 days, DWR should require that revisions to the GSP be included within the 180-day cure period committing the ETGSA to address these shortcomings, and laying out a clear plan to accomplish the goal, to including a funding mechanism if appropriate. If the GSA fails to comply with these recommendations, DWR should find the Plan inadequate.

- **Revise §4.5 to clarify the GSA’s intentions regarding the proposed Friant-Kern Canal Subsidence Management Area.** The ETGSA GSP states that it is unable to create defined boundaries for the proposed FKCSMA due to data gaps. However, in section 4.5, the FKCSMA appears in a list of six management areas, of which five have definite boundaries and have been adopted by the GSA.⁴⁰ The proposed FKCSMA management area has been discussed at meetings of the Stakeholder and Executive committees and appeared in presentations from the ETGSA consulting engineer, Dave DeGroot.

Additionally, §4.5 of the EKGSA GSP directs the reader to Section 7.2.3, “Land Subsidence Management and Monitoring,” for more information.⁴¹ This section states that the ETGSA has identified a preliminary Area of Subsidence Concern (AOSC) for the Canal. The area identified in §7.2.3 is, “centered on the Friant-Kern Canal and extends two miles north of the Tule River, four miles south of the White River, and approximately four miles on either side of the Canal.”⁴² Because of the conflicting language it is not clear how advanced the plan to create a management zone for the Canal actually is. If the ETGSA is close to adoption of this management area, these inconsistencies must be clarified so that DWR can analyze the effect of SMCs in the management area, especially given the importance of solving subsidence around the canal to the success of the ETGSA GSP.

- **Provide more clarity about how management areas will be implemented, including providing more detailed descriptions on the sustainable management criteria (SMCs) and projects and management actions (P&MAs).** Particularly with regard to community management areas, the

⁴⁰ ETGSA GSP, §4.5, pg. 200.

⁴¹ EKGSA GSP, §7.2.3, pg. 290.

⁴² Id.

document states that the reason for creation of this type of management area was, “to address the needs of ETGSA’s population centers and communities.” However, the document lacks a description of how the GSA proposes to do this, including whether there may be specific SMCs or P&MAs adopted in these areas to protect the viability of community drinking water supplies.

GSP Section 5: Sustainable Management Criteria

SGMA and Regulatory Requirements

The SMCs listed in 23 CCR §355.22 are: the sustainability goal, minimum thresholds, measurable objectives, and undesirable results. These criteria are used to define conditions that constitute sustainable groundwater management for the basin.⁴³

Sustainability indicators represent six groundwater conditions that must be avoided by the GSP in order to achieve sustainable groundwater management. The six sustainability indicators are: lowering groundwater levels, reduction of storage, degraded quality, land subsidence, seawater intrusion, and surface water depletion.⁴⁴

Minimum thresholds, “quantify groundwater conditions for each applicable sustainability indicator at each monitoring site or representative monitoring site ...the numeric value used to define minimum thresholds shall represent a point in the basin that, if exceeded, may cause undesirable results.”⁴⁵

Undesirable results occur, “when significant and unreasonable effects for any of the sustainability indicators are caused by groundwater conditions occurring throughout the basin,”⁴⁶ and the description must include “The criteria used to define when and where the effects of the groundwater conditions cause undesirable results for each applicable sustainability indicator. The criteria shall be based on a quantitative description of the combination of minimum threshold exceedances that cause significant and unreasonable effects in the basin.”

Measurable objectives are quantified values, “including interim milestones in increments of five years, to achieve the sustainability goal for the basin within 20 years of Plan implementation and to continue to sustainably manage the groundwater basin over the planning and implementation horizon.”⁴⁷

Sustainable groundwater management is defined as, “the management and use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing undesirable results.”⁴⁸

The ETGSA GSP

The SMCs adopted by the ETGSA for both groundwater level and quality are deeply problematic. Both are analyzed independently below in their own sections.

⁴³ 23 CCR §355.22.

⁴⁴ Water Code §10721(x).

⁴⁵ 23 CCR §354.28.

⁴⁶ 23 CCR §354.26.

⁴⁷ 23 CCR §354.30.

⁴⁸ Water Code §10721(v).

Community Feedback on the Draft GSP

Conversations at the community GSP review workshops were focused on the concern of additional drinking water wells being impacted without proper plans for mitigation or action. The following are community comments⁴⁹ that relate to the sustainable management criteria of the ETGSA GSP:

<p>“The proposed 175 foot drop (MT-level) in groundwater near Ducor is unacceptable.”</p>
<p>“A 76 foot reduction in groundwater level would leave me with a dry well.”</p>
<p>“A mitigation program should be included in the GSP to protect domestic water users, especially if the groundwater levels are expected to lower, or contaminants are liable to move due to P&MAs.”</p>

Groundwater Levels

Recommendations to DWR

1. The SMCs for water level lowering are legally insufficient per SGMA.

The MOs and MTs for the groundwater lowering sustainability indicator chosen by ETGSA warrant detailed and critical review by DWR. Due to the serious danger of dewatering at numerous and widespread wells used for domestic drinking water, and the vast economic impact these choices will result in, DWR should not rule out finding the GSP inadequate on this issue alone.

While SGMA gives great deference to local control, this prerogative does not extend to DWR, which must review the Plan under stricter rules and regulations found in SGMA itself, the regulations, and other California law. In particular, 23 CCR §355.4(b)(1) requires that when determining whether the GSP is likely to meet the sustainability goal, DWR must consider whether, “the assumptions, criteria, findings, and objectives, including the sustainability goal, undesirable results, minimum thresholds, measurable objectives, and interim milestones are reasonable and supported by the best available information and best available science.”

Court review of an agency decision is made under the arbitrary and capricious standard. Under this standard a court will not question an agency's finding of fact, but would overrule a decision if the agency acted arbitrarily and capriciously, or without any evidentiary basis. This is a difficult standard to meet for those seeking to overturn agency decisions. However, given the requirements of §355.4(b), the uncritical DWR approval of the nakedly arbitrary MT’s and URs chosen by the ETGSA would satisfy the arbitrary and capricious standard.

2. Analysis of the ETGSA decision process for its choice of SMCs.

⁴⁹ Comments in red were received at the Ducor workshop and blue comments were received at the Porterville workshops.

The ETGSA area includes over 830 domestic wells, and wholly or partly includes five DWR-designated DACs (i.e., Porterville, Ducor, East Porterville, Polar-Cotton Center, and Terra Bella) with a collective population of over 68,800 people. The ETGSA area also includes 22 small community water systems, 19 of which have fewer than 200 service connections but collectively serve over 3,900 people.

The ETGSA GSP is characterized throughout with aggressive assumptions regarding what level of impact is “sustainable” with regard to drinking water users, extending even to the setting of the URs. The Coordination Agreement defines URs for the chronic lowering of groundwater levels as, “if there is basin-wide loss of well pumping capacity, which cannot be remedied.”⁵⁰ This definition implies that it is feasible for beneficial users to continuously install new wells until essentially the bottom of the basin is reached, and that any condition short of that does not constitute an UR. The criteria associated with the UR is defined as, “unreasonable lowering of the groundwater elevation below the minimum threshold for two consecutive years at greater than 50% of GSA Management Area RMS.”⁵¹ This UR does not clearly indicate how the proposed water level MTs will preserve the quality of life or support population growth, given the lack of consideration for drinking water beneficial users in the subbasin, in particular domestic well users and DACs reliant on groundwater. Clearly, this approach is not protective of all users within the basin,

Shockingly, ETGSA did not perform the required analysis of potential impacts of the proposed MTs and MOs for drinking water users before choosing these SMCs. We pointed out that this violated 23 CCR §355.4(b), which requires DWR to review sustainability indicators to ensure both reasonableness and compliance with the best available science; a wholly arbitrary and rotely applied decision such as that conducted by the GSA is not reasonable nor based on good science, let alone the “best available science.”

In our December 13 comment letter to the GSA, CWC also presented our own analysis of well impacts at the proposed MTs and MOs to the GSA.⁵² Our study suggests that the proposed MTs and MOs will have significant impacts on users of domestic wells and DACs. The MTs and MOs have not been changed in the final GSP.

We also collaborated on an updated well impact assessment, funded by the Water Foundation and conducted by EKI, which evaluated and quantified potential drinking water impacts at SMCs.⁵³ Based on this assessment, water level declines could result in significant impacts to drinking water users. This analysis was conducted for twenty-six GSPs in the Central Valley that were submitted to DWR in January 2020 and collectively encompass the majority of ten critically overdrafted groundwater basins in the San Joaquin Valley. It compared wells with available construction information to current groundwater depths interpolated based on Fall 2018 depth to groundwater contours, available from the DWR GICIMA dataset. Wells were excluded if they were expected to be dewatered at current groundwater levels, if

⁵⁰ ETGSA GSP, Appendix A, §4.3.1.1 of the Tule Subbasin Setting, pg. 821.

⁵¹ ETGSA GSP, Appendix A, §4.3.1.2 of the Tule Subbasin Setting, pg. 822.

⁵² Water Code §10723.2; 23 CCR §354.28 (b)(4).

⁵³ The Water Foundation Whitepaper, April 2020: “Estimated Numbers of Californians Reliant on Domestic Wells Impacted as a Result of the sustainable management criteria Defined in Selected San Joaquin Valley Groundwater Sustainability Plans and Associated Costs to Mitigate Those Impacts.”

https://waterfdn.org/wp-content/uploads/2020/05/Domestic-Well-Impacts_White-Paper_2020-04-09.pdf.

they lacked sufficient construction information to make that determination, or if they were outside the areas for which DWR GICIMA data were available. It then interpolated water levels at the proposed SMCs.

Based on the findings of the study, the impacts to domestic well users and the costs to mitigate these impacts within the ETGSA are expected to be substantial. Due to data limitations, the study evaluated only a portion of the domestic wells identified within the ETGSA. If water levels reach the MOs, 35% to 60% of the domestic wells included in the study will be partially or fully dewatered,⁵⁴ impacting the drinking water source for approximately 900 to 1,600 people.⁵⁵ The costs to mitigate these impacts, including increased operations and maintenance costs and the replacement of failed wells, is estimated to be on the order of \$760,000 to \$1.7 million.⁵⁶ If water levels reach the MTs within the ETGSA, it is estimated that 74% to 83% of these domestic wells will be partially or fully dewatered,⁵⁷ impacting the drinking water source for approximately 1,800 to 2,000 people.⁵⁸ The costs to mitigate these impacts are estimated to be on the order of \$3.1 million to \$4.0 million.⁵⁹ Given that only a portion of the domestic wells were evaluated in this analysis, actual impacts and costs may be higher.

While SGMA gives great deference to local control, this prerogative does not extend to DWR, which must review the Plan under the stricter rules and regulations found in SGMA itself, the regulations, and other California law. In particular, 23 CCR §355.4(a) requires that a GSP follow the letter of the SGMA statute and regulations. This has not happened, in that the GSP violates 23 CCR 354.8(b)(4) as described. Furthermore, 23 CCR §355.4(b)(4) requires DWR to consider, “whether the interests of the beneficial uses and users of groundwater in the basin, and the land uses and property interests potentially affected by the use of groundwater in the basin, have been considered,” when making its determination on whether the GSP is likely to succeed in achieving its sustainability goal. In relevant part, the ETGSA’s sustainability goal (incorporated from the Tule Subbasin Setting) reads:⁶⁰

*It is further the goal of the Tule Subbasin GSAs that coordinated implementation of their respective Groundwater Sustainability Plans will achieve sustainability in a manner that facilitates the highest degree of collective economic, societal, environmental, cultural, and communal welfare and **provides all beneficial uses and users the ability to manage the groundwater resource at least cost.***

⁵⁴ Id. at Table 2a.

⁵⁵ Id. at Table 4a.

⁵⁶ Id. at Table 6a.

⁵⁷ Id. at Table 3a.

⁵⁸ Id at Table 4a.

⁵⁹ Id. at Table 7a.

⁶⁰ EKGSA GSP, §5.2, pg. 207 (emphasis added). This language is confusing because of its reference to, “Tule Subbasin GSAs.” The specific language is copied by the GSA verbatim from the Tule Subbasin Setting, and is included in the section of the LTRIDGSA GSP proper that defines the sustainability goal for the GSA. It is clearly meant to be part of the LTRIDGSP’s sustainability goal, although the difficulties caused by the complex structure of the Tule Subbasin GSAs are once again evident.

Without any study to determine the effects of the SMCs on groundwater users, the GSP cannot accomplish ETGSA's sustainability goal, and thus the Plan fails to satisfy the requirements for review under 23 CCR §355.4(b).

3. The ETGSA's response to our report did not satisfy the regulatory requirements.

23 CCR §355.4(b)(10) requires DWR to determine whether the GSA has, "adequately responded to comments that raise credible technical or policy issues with the Plan." In this case, ETGSA did not acknowledge our request that they explain their rationale for choosing such aggressive SMCs. In response to our comments, the ETGSA responded with "Comment taken under consideration," and directed readers to a revised §5.5.1.2 of the GSP which states: "In addition to the information provided in the Coordination Agreement, the ETGSA considered, and began doing, a study focusing on well failures at interim milestones, measurable objectives, and minimum thresholds at RMS to help better inform the GSA on defining undesirable results relating groundwater levels. Being that interim milestones and measurable objectives established at RMS were above or near 2015 water levels...the GSA determined well failures are not expected as a result of the criteria set."⁶¹

We believe that this lack of substantive response is because the SMCs were set arbitrarily, not based on science or outcomes for communities, but for the benefit of values so low that the GSA will never face a decision over curtailing pumping by irrigators.

4. GSA's choice of SMCs results in disparate impacts.

The aggressive approach adopted by the ETGSA to setting the SMCs for groundwater levels is not protective of all beneficial users within the subbasin, particularly DAC residents who do not have the financial resources to address well impacts by themselves. In addition to not having the resources to construct deeper wells, low-income communities also do not have the resources to implement water treatment systems that require expensive operation and maintenance costs. Additionally, communities reliant upon state small water systems or private domestic wells, may not even be aware of the contamination in their well water as there are no testing requirements for these sources of water and testing costs can be unaffordable for these users. Moreover, deeper wells and water treatment systems result in a significant increase in energy, operation, and maintenance expenses that can increase water bills in small water systems above the California water affordability threshold of 1.5% of MHI.⁶² Based on the ETGSA GSP water budgets, rural domestic and small water system demand is very low compared to agricultural water uses and thus does not contribute substantially to the overdraft conditions. Nonetheless, the risks imposed on these drinking water users are overlooked and neglected, creating a disproportionate impact.

5. The GSA's choice of SMCs ignores Water Code §106 priorities, violates the Human Right to Water, and threatens the successful implementation of the Safe and Affordable Funding for Equity and Resilience (SAFER) program.

⁶¹ EKGSA GSP, §, pg. 186 (emphasis added)

⁶² Affordability threshold from the State Water Board's Drinking Water State Revolving Fund.

The cavalier treatment of dewatering of shallow water wells more likely used by domestic users upends the priority system in California as expressed in Water Code §106, which lists water use for domestic purposes as having the “highest priority,” with irrigation second. Also, the potential dewatering of wells used for domestic purpose would result in myriad violations of the HR2W, which states that, “it is the established policy of the state that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes.”⁶³ Although the GSA does not have to comply with the HR2W, DWR must consider this right when, “revising, adopting, or establishing policies, regulations, and grant criteria when those policies, regulations, and criteria are pertinent to the uses of water [for domestic uses].”⁶⁴ The plain language of the HR2W makes it clear that DWR may not approve the ETGSA GSP until the GSA justifies its choice of MTs, MOs, and URs in light of this right and the danger of well dewatering.

This approach shifts the burden of protecting domestic water users and mitigating the impacts of continued groundwater overdraft conditions from the GSA, which has been empowered by the Legislature to curtail groundwater pumping,⁶⁵ to individual and community water users and the State Water Resources Control Board, through the Safe and Affordable Funding for Equity and Resilience (SAFER) program (SB200). This shift in responsibility is inappropriate in light of the Legislature’s intent when it enacted SGMA. It also threatens the success of the SAFER program, which is being treated, via implication, as a backstop to the GSP.

6. Specific Recommendations for DWR

We recommend that DWR find the ETGSA GSP to be incomplete pending the adoption of the following recommendations. If DWR finds that one of our suggestions cannot reasonably be made in 180 days, DWR should require that revisions to the GSP be included within the 180-day cure period committing the ETGSA to address these shortcomings, and laying out a clear plan to accomplish the goal, to including a funding mechanism if appropriate. If the GSA fails to comply with these recommendations, DWR should find the Plan inadequate:

- **Include quantifiable sustainable management criteria (SMCs) for all identified representative monitoring wells (RMWs) in the ETGSA, or clarify the inconsistency with the Tule Subbasin Coordination Agreement.** Figures A1-2⁶⁶, A1-5⁶⁷, and 2-34⁶⁸ in the Coordination Agreement collectively identify a total of 11 water level RMWs within the ETGSA area. However, Figure 5-1⁶⁹ and Table 6-1⁷⁰ of the GSP only identify 10 water level RMWs. In addition, only nine of them are assigned with MOs and MTs (Table 5-2⁷¹ and Table 5-3⁷²) and shown as RMS for groundwater

⁶³ Water Code §106.3(a).

⁶⁴ Water Code §106.3(b).

⁶⁵ Water Code §10726.4.

⁶⁶ ETGSA GSP, Tule Subbasin Monitoring Plan, pg. 895.

⁶⁷ ETGSA GSP, Tule Subbasin Monitoring Plan, pg. 899.

⁶⁸ ETGSA GSP, Tule Subbasin Monitoring Plan, pg. 1253.

⁶⁹ ETGSA GSP, Figure 5-1, pg. 210.

⁷⁰ ETGSA GSP, Figure 6-1, pg. 270.

⁷¹ ETGSA GSP, Table 5-2, pg. 214.

⁷² ETGSA GSP, Table 5-3, pg. 217.



level in Figure 5-1 of the GSP. Pursuant to 23 CCR §352.36, representative monitoring sites are the points for which quantitative values for MTs, MOs, and IMs (i.e., SMCs) are defined and required, and so the lack of clarity here calls into question the adequacy of this section per 23 CCR §355.4(a) and (b).

- **Clarify the rationale for the water level decline used to develop MTs/MOs, and describe how the approach to develop MTs/MOs is protective of diverse drinking water users.**
- **In order to assess how MOs and MTs may affect the interests of beneficial uses and users of groundwater, per 23 CCR §354.28(b)(4), the GSP should include the results of the Water Foundation assessments, or conduct and present a similar robust analysis assessing the potential impacts of SGMA on domestic well users that adequately quantifies and captures well impacts at the minimum thresholds, measurable objectives, and proposed undesirable results.**
- **Clarify how the projected water level decline before reaching the UR would not be not significant and unreasonable as described in 23 CCR §354.26.** In particular, clarify how the UR are protective and adequately capture the impacts to DACs and domestic well owners.
- **Clarify the process for evaluating minimum threshold exceedance and the potential actions to address exceedance.** This clarification should describe the evaluation process, potential actions taken, and the funding to implement actions. In addition, allowing water level MT to decline in the event of a five year drought further puts vulnerable drinking water communities at risk. Without an adequate well mitigation plan in place, impacts to wells are significant and unreasonable.
- **Develop a protective minimum threshold near vulnerable communities, including domestic wells, to avoid localized impacts and ensure the protection of these important water sources.** Near small community water systems and domestic well users, ETGSA should reconsider the approach used for setting water level MTs as the current proposal leaves key beneficial users in the subbasin, specifically domestic well users and S/DACs vulnerable to significant impacts. It is important to protect vulnerable communities access to a reliable source of water, thus minimum thresholds for groundwater levels should be set at a level above the screen of the shallowest domestic well. If ETGSA decides to define and reach its sustainability criteria in a way that allows for the dewatering of drinking water wells, it must provide a robust drinking water protection program to prevent impacts to drinking water users and mitigate drinking water impacts that occur. Recommendations for this type of program are included in the P&MAs section of this letter.

Groundwater Quality

Recommendations to DWR

1. The SMCs chosen by the GSA flaunt both the letter and intention of SGMA.

The GSP sets water quality MOs, “at each RMS well” as “a change above the baseline groundwater quality to not exceed 10% of long term 10 year running average.”⁷³ As stated in §5.7.3.1.1 of the GSP, the water quality MTs are defined “at each RMS well” as a “change above the baseline (2020)

⁷³ ETGSA GSP, §5.7.2.1.1, pg. 226.

groundwater quality to not exceed 15% for two consecutive years” (emphasis added).⁷⁴ The Coordination Agreement defines the URs for degraded water quality as “unreasonable long-term changes of groundwater quality above the minimum thresholds at greater than 50% of GSA Management Area RMS wells caused by groundwater pumping and/or groundwater recharge.”⁷⁵

The purpose of MTs is to delineate, “the point in the basin that, if exceeded, may cause undesirable results.”⁷⁶ This makes setting MTs a critical function for measuring progress towards sustainable groundwater management and avoiding significant and unreasonable impacts. In all cases, MTs and MOs for water quality must be quantified at each monitoring site or representative monitoring site.⁷⁷ The approach to define MTs and URs adopted by the ETGSA will allow water quality to degrade longer than in other parts of the subbasin. Given that the method used to determine MOs and MTs uses a 10-year running average, this implies that the MOs and MTs will be recalculated for each reporting period and thus ever-increasing water quality concentrations will remain within the MTs as long as the rate of increase stays within a 15% increase over the running average.

This choice by itself violates the requirements of SGMA because it does not provide a clearly defined quantitative MT, nor does it clearly define constituents of concern (COC). 23 CCR §354.28(a), expressly requires the assignment of a numerical value at each monitoring site for each COC.

The ETGSA GSP does not clearly illustrate how the MOs/MTs will be sufficient to ensure that the stated water quality UR of impacting the long-term viability of the groundwater resource, particularly for domestic water users and DACs, will be avoided. The lack of quantified MTs violates SGMA, and the non-quantified Water Quality SMCs must be rejected. DWR should also ensure that the GSA provides the current concentrations for chemicals of concern at each monitoring site. A failure to include this data will place the Plan outside of substantial compliance per 23 CCR §355.4(b), as it would materially affect the ability of DWR to evaluate the likelihood of the Plan’s success. It would also fail to satisfy review under 23 CCR §355.4(b)(1), which requires that SMCs be, “reasonable and supported by the best available information and best available science.” DWR should find the Plan incomplete pending the adoption of our recommendations on the water quality SMCs.

2. Inconsistencies in Listing SMCs for Water Quality.

There are a few areas in regards to groundwater quality sustainable management criteria that are not clear and could cause significant impacts to drinking water users if not adequately addressed. The water quality monitoring network and analysis presented in the Coordination Agreement and the GSP does not clearly illustrate how the MOs/MTs will be sufficient to ensure that the stated water quality UR of impacting the long-term viability of the groundwater resource, particularly for domestic water users and DACs, will be avoided.

The GSP identifies COCs to be monitored by the ETGSA at the identified water quality RMS, including arsenic, total chromium, nitrogen as N, “any specific Title 22 MCL [maximum contaminant level] exceedance at baseline sampling event in Spring 2020”, pH, and conductivity.⁷⁸ This listing of COCs is not

⁷⁴ ETGSA GSP, §5.7.3.1.1, pg. 230.

⁷⁵ ETGSA GSP, Coordination Agreement, §4.3.3.2, pg. 823.

⁷⁶ 23 CCR §354.28(a).

⁷⁷ 23 CCR §354.28(a).

⁷⁸ ETGSA GSP, Table 5-6, pg. 227.

sufficiently specific to determine which COCs will have SMCs set for them. The GSA is given some freedom by SGMA in determining what chemicals of concern it will test for at monitoring sites.⁷⁹ However, once a contaminant of concern is included in the Plan, it must be given quantifiable SMCs so that the GSA can determine the progress it is making towards sustainable groundwater management.⁸⁰

Based on the 2018 water quality data presented, insufficient data appear to be available to calculate a baseline and thus SMCs relative to a baseline for COCs at certain RMS wells, and no explanation is given for how such data limitations will be treated in calculating SMCs. Similarly, it is not explained how the baseline methodology will be applied when the baseline values are non-detect. The water quality SMCs presented in Tables 5-7⁸¹ and 5-8⁸² of the GSP are not consistent with the processes for determining IMs, MOs, and MTs described in §§5.7.2.1.1⁸³ and 5.7.3.1.1⁸⁴ of the GSP. Based on Tables 5-7 and 5-8, the GSA intends to use water system CCRs as RMS in addition to the four identified RMS wells. In addition to the inconsistencies identified above, it is further unclear how the ETGSA intends to establish SMCs for RMS not identified as specific wells. Based on the discrepancies in the GSP, it is not clear what method was used to develop the water quality SMCs and what the ETGSA intends to use to define water quality sustainability. As such, the GSP does not include a complete description of, “the information and criteria relied upon to establish and justify the minimum thresholds for each sustainability indicator”, as required by 23 CCR §354.28(b)(1).

Clarification of these and other items identified in the comments are important to support DWR’s ability to make a determination of, “whether the assumptions, criteria, findings, and objectives, including the sustainability goal, undesirable results, minimum thresholds, measurable objectives, and interim milestones are reasonable and supported by the best available information and best available science,” as required under CCR 23 §355.4(b)(1).

3. The ETGSA should conduct an economic impact assessment prior to selecting their new SMCs.

In addition to the above, this section requires more clarity to assess whether the ETGSA GSP has adequately considered potential impacts to drinking water beneficial users with regards to water quality. In particular, an evaluation of the economic impacts of groundwater quality SMCs is missing from the GSP. Because public water systems are required by state law to be in compliance with water quality objectives, increased contamination levels or the appearance of new contaminants will cause water systems to utilize more expensive treatment methods or have to invest in developing new cleaner replacement sources of water. If treatment is not feasible they may need to blend or arrange for bottled water deliveries. This danger also applies to the owners of domestic wells and state small water systems, both of which are not required to test, nor do the users of these sources of water often have the resources to conduct regular testing for COCs. Residents may become exposed to hazardous contaminants without even knowing it, posing a significant public health issue. Further, households and

⁷⁹ 23 CCR §354.26(a).

⁸⁰ 23 CCR §354.28(a).

⁸¹ ETGSA GSP, Table 5-7, pg. 228.

⁸² ETGSA GSP, Table 5-8, pg. 230.

⁸³ ETGSA GSP, §5.7.2.1.1, pg. 226.

⁸⁴ ETGSA GSP, §5.7.3.1.1, pg. 230.

communities already utilizing point of use/point of entry (POU/POE) filtration systems may no longer be able to use them if contaminant levels rise too high.

These increased expenses are unreasonable barriers to safe, affordable, and accessible drinking water and therefore would be inconsistent with SGMA and the Human Right to Water. They also impact the viability of the SAFER program, which is treated, by implication, as a backstop to the plan. Finally, the disproportionate effect of these expenses on protected classes may represent a civil rights violation under a theory of disparate impact, as described earlier in this comment letter.

4. Specific Recommendations for DWR

We recommend that DWR find the ETGSA GSP to be incomplete pending the adoption of the following recommendations. If DWR finds that one of our suggestions cannot reasonably be made in 180 days, DWR should require that revisions to the GSP be included within the 180-day cure period committing the ETGSA to address these shortcomings, and laying out a clear plan to accomplish the goal, to including a funding mechanism if appropriate. If the GSA fails to comply with these recommendations, DWR should find the Plan inadequate:

- **Clarify inconsistencies in the various locations where groundwater quality SMC's are discussed, particularly between the ETGSA GSP and the Tule Subbasin Coordination Agreement.** The Coordination Agreement identifies nitrate, pesticides, DBCP, and 1,2,3-TCP in the upper aquifer as contaminants of concern (COCs) and arsenic, manganese, and hydrogen sulfide as COCs for the lower aquifer.⁸⁵ However, the GSP includes a more limited and potentially inadequate list of SMCs for drinking water COCs for the ETGSA⁸⁶, only providing quantifiable values for nitrate, arsenic, and chromium (Tables 5-7⁸⁷ & 5-8⁸⁸). Additionally, the GSP does not provide an explanation of how this list of COCs was determined for the ETGSA area. Detailed discussion about any other COCs, if present, should be discussed and SMCs should be established for these additional COCs, to facilitate the public's and DWR's evaluation of the groundwater quality condition within the ETGSA area.⁸⁹ The water quality SMCs presented in Tables 5-7 and 5-8 of the GSP are not consistent with the processes for determining IMs, MOs, and MTs described in §§5.7.2.1.1⁹⁰ and 5.7.3.1.1⁹¹ of the GSP, except for the conductivity MT in RMS well 500094. For nitrate as N, conductivity, pH, and arsenic, the presented MOs appear to be based on the Basin Plan Objectives listed in Table 2 of the Tule Subbasin Monitoring Plan.⁹² It is not clear what method was used to develop the water quality SMCs and what the ETGSA intends to use to define water quality sustainability. The GSP should clearly and transparently describe the basis for its SMCs and identify the numerical values that will be used.

⁸⁵ ETGSA GSP, Appendix A, Tule Subbasin Setting, §2.1.7.4, pg. 1163.

⁸⁶ ETGSA GSP, Table 5-6, pg. 227.

⁸⁷ ETGSA GSP, Table 5-7, pg. 228.

⁸⁸ ETGSA GSP, Table 5-8, pg. 230.

⁸⁹ 23 CCR §355.4 (b)(1).

⁹⁰ ETGSA GSP, §5.7.2.1.1, pg. 226.

⁹¹ ETGSA GSP, §5.7.3.1.1, pg. 230.

⁹² ETGSA GSP, Tule Subbasin Monitoring Plan, Appendix E, pg. Table 2, pg. 1075.

- **Clearly identify and describe the current level of contamination at each representative monitoring well and attribute specific numeric values for MTs/MOs for each contaminant of concern.** Quantitative values need to be established for MTs/MOs for each applicable sustainability indicator at each RMW as is required by 23 CCR §354.28 and 23 CCR §354.30. This information should be presented clearly with either tables or maps so that both the public and DWR can evaluate the proposed SMCs. Without clearly articulating either the current water quality levels or the values of the contaminants of concern at the MTs/MOs, the ETGSA will not be able to adequately monitor progress towards goals and will not be able to effectively monitor to avoid undesirable results. Without clearly articulating these in the ETGSA GSP, the public also cannot adequately evaluate potential impacts.
- **Provide more clarity about how the GSA will determine whether MTs or Undesirable Results will be evaluated.** The MO and MT methods identified in §§5.7.2.1.1⁹³ and 5.7.3.1.1⁹⁴ of the GSP specify that the SMCs are calculated for “each RMS well.” However, based on Tables 5-7⁹⁵ and 5-8,⁹⁶ the GSA intends to use water system CCRs as RMS in addition to the four identified RMS wells. The GSP does not specify the treatment level, blending, averaging, or other parameters reported in these CCRs, and therefore it is unclear how the data presented in the CCRs represents the water quality conditions of the groundwater. It is further unclear how the ETGSA intends to establish SMCs for RMS not identified as specific wells. Given that the ETGSA has identified three non-well RMS, it is unclear based on this definition how URs will be evaluated within the ETGSA area. The Coordination Agreement defines the URs for degraded water quality as “unreasonable long term changes of groundwater quality above the minimum thresholds at greater than 50% of GSA Management Area RMS wells caused by groundwater pumping and/or groundwater recharge.”⁹⁷ This is inconsistent with the GSP, which states the GSA will only monitor for impacts from recharge. Neither the GSP nor the Coordination agreements indicate any plans to monitor for impacts from point or nonpoint sources with potential to negatively impact drinking water beneficial users.
- **Revise SMCs to be more protective of DAC and drinking water stakeholders, or demonstrate how these will be sufficient to ensure that the stated water quality Undesirable Result of “impacting the long-term viability of the groundwater resource” for drinking water beneficial users will be avoided.**
- **Revise the Undesirable Results for groundwater quality as follows:**
 - Any degradation above the MCL; or
 - If under the MCL, a degradation of more than 25%, or approaching 75% of the MCL
 - If over the MCL and any further degradation

The above criteria are to be measured at least annually and apply where 15% of monitoring wells exceed criteria for two consecutive years at the same wells. Any UR that is determined to be a health hazard by a county, State or Federal agency should be immediately addressed even if it does not meet the above criteria.

⁹³ ETGSA GSP, §5.7.2.1.1, pg. 226.

⁹⁴ ETGSA GSP, §5.7.3.1.1, pg. 230.

⁹⁵ ETGSA GSP, Table 5-7, pg. 228.

⁹⁶ ETGSA GSP, Table 5-8, pg. 230.

⁹⁷ ETGSA GSP, Coordination Agreement, §4.3.3.2, pg. 823.



- **Provide an analysis of water quality data in the GSA with a discussion of if the contaminant qualifies as a Contaminant of Concern to be included in the GSP.** Though GAMA and other sources groundwater quality data is available for this area. Based on an analysis of available data the GSA should determine and explain inclusion or exclusion of a particular contaminate in the GSP and monitoring program. As part of the data review also identify any water quality data gaps that need to be addressed by the GSA.
- **Include maps of existing contaminants of concern in the ETGSA.** As required by 23 CCR §354.16, each GSP needs to provide a description of “groundwater quality issues that may affect the supply and beneficial uses of groundwater, including a description and a map of the location of known groundwater contamination sites and plumes.” Currently, the GSP only includes isocontour maps for nitrate, conductivity, arsenic, and chromium, though the source of this data is not completely clear. In addition, §4.2.6.4 of the GSP discusses 26 active cleanup sites within the Tule Subbasin, and states “...there are two National Priority List [NPL] sites around the city of Porterville. Problems associated with point source contamination sites are highly localized,” however the location of these sites and the specific contaminants of concern are not mapped.⁹⁸ Generally, this section could be improved by clearly identifying potential “hot spots” of groundwater contamination and the associated COCs which need to be monitored and addressed. As groundwater quality monitoring in the GSA is improved, the accuracy of these maps can also improve but in the meantime, maps of contaminants developed by CV-SALTS, USGS GAMA, or other well monitoring programs can be included. Some potential nitrate maps to consider including in the GSP are included in this comment letter attachment.
- **Include an analysis of the relationship between changes in groundwater levels and groundwater quality concentrations.** Steep groundwater level gradients are present in the western portion of the ETGSA area. At proposed MOs and MTs, significant changes to groundwater flow gradients could occur, particularly in the area around Porterville. In addition to dewatering wells, changes to groundwater flow gradients could potentially result in changes to water quality. Additionally, §4.2.6.4 of the GSP discusses 26 active cleanup sites within the Tule Subbasin, and states “...there are two National Priority List [NPL] sites around the city of Porterville. Problems associated with point source contamination sites are highly localized”.⁹⁹ However, the COCs related to the two NPL sites near the DACs within the ETGSA area are not discussed in the GSP, and the only water quality constituent examined in the GSP is nitrate. Significant changes to flow gradients have the potential to mobilize contaminant plumes associated with these sites. The GSP should include a more comprehensive discussion of water quality related to the two NPL sites, including those issues that may impact drinking water beneficial users, including DACs. The GSP and/or the Coordination Agreement should demonstrate how the proposed SMCs are achievable, analyze the changes to water level gradients, and clearly describe the impacts expected to result from the proposed SMCs within the ETGSA area, and particularly in areas with significant localized variability in anticipated water level changes.
- **Consider working with local and regional water agencies or the county to implement groundwater quality remediation projects that could improve both quality as well as levels**

⁹⁸ ETGSA GSP, §4.2.6.4, pg. 178.

⁹⁹ ETGSA GSP, §4.2.6.4, pg. 178.

and to ensure groundwater management does not cause further degradation of groundwater quality. The strategic governance structure of GSAs can uniquely leverage resources, provide local empowerment, centralize information, and help define a regional approach to groundwater quality management unlike any other regional organization. When implemented effectively, GSAs have the potential to be instrumental in reducing levels of contaminants in their regions, thus reducing the cost of providing safe drinking water to residents. GSAs are the regional agency that can best comprehensively monitor and minimize negative impacts of declining groundwater levels and degraded groundwater quality that would directly impact rural domestic well users and S/DACs within their jurisdictions. When potential projects are proposed, ETGSA should consider how projects could potentially both positively and negatively impact groundwater quality conditions and should take leadership in coordinating regional solutions.

GSP Section 6: Monitoring Network

SGMA and Regulatory Requirements

Each basin is required by 23 CCR §354.33 to, “have a monitoring network that shall be developed for each basin, including monitoring objectives, monitoring protocols, and data reporting requirements.” The monitoring network must, “promote the collection of data of sufficient quality, frequency, and distribution to characterize groundwater and related surface water conditions in the basin and evaluate changing conditions that occur through implementation of the Plan.”¹⁰⁰

The ETGSA GSP

As currently developed, the monitoring network does not adequately monitor how groundwater management actions related to groundwater levels could impact vulnerable communities. This concern was also shared at the GSP review meetings.

Community Feedback on the Draft-GSP

The following are some community comments¹⁰¹ that relate to the monitoring network of the ETGSA GSP:

The monitoring wells and data provided are unclear, including the “current” groundwater levels (i.e. are these actual field measurements or are they model outputs), about whether they are in the upper or lower aquifer, if measurements were taken correctly (i.e. pumping or static groundwater levels), the date they were taken, and predictions of future groundwater levels.

There is lack of clarity and trust about how this will be monitored and implemented/enforced with respect to groundwater users. Specifically, if water use is being

¹⁰⁰ 23 CCR §354.33; Water Code §10733.2.

¹⁰¹ Comments in blue were received at the Porterville workshops.



measured by LANDSAT, how does it distinguish between parcels using groundwater and surface water, the respective quantities, and is this going to lead to bias in the accounting of groundwater use?

Recommendations to DWR

Robust monitoring networks are critical to ensuring that the GSP is on track to meet sustainability goals. GSAs undertaking recharge, significant changes in pumping volume or location, conjunctive management or other forms of active management as part of GSP implementation, must consider the interests of beneficial users, including domestic well owners and S/DACs.

Our recommendations in this section are varied in nature, but taken individually and together they show that this section of the GSP is not in substantial compliance per 23 CCR §355.4(b) for two reasons. First, the lack of robust monitoring in and of itself makes the Plan unlikely to attain its sustainability goal because it prevents the GSA from knowing whether or not its actions are making progress towards achieving sustainable groundwater management. For example, the lack of information makes it impossible for DWR to determine in some cases if URs have occurred relative to the geographical location of subgroups of beneficial users. Second, the data gaps caused by the deficiencies in the monitoring network materially affect DWR's ability to analyze the likelihood of success for the GSP. Both of these theories are independently grounds for finding the GSP incomplete or inadequate.

In light of this, we recommend that DWR find the ETGSA GSP to be incomplete pending the adoption of the following recommendations. If DWR finds that one of our suggestions cannot reasonably be made in 180 days, DWR should require that revisions to the GSP be included within the 180-day cure period committing the ETGSA to address these shortcomings, and laying out a clear plan to accomplish the goal, to including a funding mechanism if appropriate. If the GSA fails to comply with these recommendations, DWR should find the Plan inadequate:

- **Include specific discussions of the water quality conditions and trends for applicable constituents and uses within the ETGSA area. It is further recommended that this analysis clearly include an evaluation of the change in water quality constituent concentrations relative to change in water levels, particularly over drought periods, to evaluate the potential relationship between water quality and groundwater management activities.** As stated in the Tule Subbasin Setting, "Nitrate (NO₃) concentrations in the GSA area range from less than 6 mg/L [milligrams per liter] to greater than 101 mg/L with higher concentrations in the northwestern portion of the GSA (see Figures 2-15, Tule Subbasin Setting)."¹⁰² The Tule Subbasin Setting further acknowledges that "...elevated nitrate in groundwater from small domestic supply wells could limit the beneficial use of water where these wells are impacted."¹⁰³ As shown on the 2018 isocontour map for nitrate as N in Appendix 5-2 of the GSP, high nitrate as N concentrations (>10 mg/L) are present within and in close proximity to Porterville, Ducor, and Richgrove (all three of which are DACs).¹⁰⁴ However, despite this identified risk to drinking water

¹⁰² ETGSA GSP, §4.2.6.4, pg. 178.

¹⁰³ ETGSA GSP, §2.2.4, pg. 1167.

¹⁰⁴ ETGSA GSP, Appendix 5-2, pg. 200 et seq.

beneficial users, the GSP does not include analysis of potential impacts to beneficial users of groundwater, particular DACs and small community water systems¹⁰⁵.

- **Provide greater clarity on how monitoring sites and sampling schedules will ensure effective monitoring of degraded groundwater quality.** Based on §6.2.3.4 of the GSP, degraded water quality will be monitored as described in the Tule Subbasin Monitoring Plan.¹⁰⁶ However, the Tule Subbasin Monitoring Plan states that, “annual water quality monitoring of the wells shown on Figure A1-7¹⁰⁷ will include laboratory analysis for nitrate as N only (see Table A1-5¹⁰⁸),” and, “every five years, samples from the wells shown on Figure A1-7 will be analyzed for an expanded list of analytes. In addition to nitrate, samples will be analyzed for total dissolved solids (TDS) and major cations and anions (see Table A1-5).”¹⁰⁹ Table A1-5 shows the constituents that will be monitored for groundwater quality trends. Other COCs identified to be monitored in Table 5-6 of the GSP, such as arsenic and chromium, are not included in the annual sampling or five-year sampling list in the Tule Subbasin Monitoring Plan, nor are they included for all water system CCRs which the GSA intends to use as RMSs. The inconsistencies between the GSP and the Tule Subbasin Monitoring Plan should be clarified, and the document should include a clear description of the monitoring schedule for all COCs identified in the GSPs. Given that the MOs and MTs may be applied based on a 10-year average concentration, each RMS should be sampled for all COCs at least annually. Failing to adequately monitor for changes in groundwater quality conditions could lead to significant drinking water impacts if not monitored properly. For example, contaminants such as nitrate that have an acute health risk, can cause immediate impacts to human health, necessitating routine testing to ensure contaminant levels do not exceed the MCL.
- **The GSP should fully consider all available water quality data in its analysis of groundwater conditions and the hydrogeologic conceptual model.** §5.3 of the Tule Subbasin Monitoring Plan lists the data sources included in the Data Management System (DMS), including DWR Water Library, California Statewide Groundwater Elevation Monitoring (CASGEM), Groundwater Ambient Monitoring & Assessment (GAMA), California State Water Resource Control Board (SWRCB) Drinking Water Branch, Regional Water Quality Control Board (RWQCB) Annual Reports, DWR Groundwater Information Center Interactive Map Application (GICIMA), and Tule Basin Water Quality Coalition (TBWQC).¹¹⁰ However, based on Figure 2-15 of the Tule Subbasin Setting that shows nitrate concentrations, TBWQC is the only data source used in the analysis.
- **Describe how the monitoring network will detect impacts to domestic well users, or else propose improvements to the existing network to cover these data gaps.** As noted previously, the GSP only identifies 11 RMS, and quantifiable SMCs are not clearly identified for all of them. It is not clear that this monitoring network is adequate to protect all beneficial users. The RMS are generally focused on the water systems located within the DACs, but provide minimal coverage for the domestic well users that are well distributed across the ETGSA area, such as the

¹⁰⁵ Stanford, 2019. A Guide to Water Quality Requirements Under the Sustainable Groundwater Management Act, Spring 2019.

¹⁰⁶ ETGSA GSP, §6.2.3.4, pg. 271.

¹⁰⁷ ETGSA GSP, Tule Subbasin Monitoring Plan, Figure A1-7, pg. 889

¹⁰⁸ ETGSA GSP, Tule Subbasin Monitoring Plan, Figure A1-5, pg. 887

¹⁰⁹ ETGSA GSP, Tule Subbasin Monitoring Plan, §2.4.1, pg. 852.

¹¹⁰ ETGSA GSP, Tule Subbasin Monitoring Plan, §5.3, pg. 879-881.

western part and north central part of the ETGSA area. The GSP should clearly demonstrate how the proposed water quality monitoring network is sufficient to monitor for impacts to domestic well users in the ETGSA area. ETGSA should develop a plan to address data gaps related to drinking water and a plan for expanding the monitoring network near and around domestic well households and DACs.

- **Clarify how the GSA plans to align groundwater monitoring efforts and the sustainable management criteria with any emerging contaminants of concern and new MCLs.**

GSP Section 7: Projects and Management Actions

SGMA and Regulatory Requirements

The GSA must describe the, "criteria for projects and management actions to be included in a Plan to meet the sustainability goal for the basin in a manner that can be maintained over the planning and implementation horizon."¹¹¹

The ETGSA GSP

The Proposed Projects and Management Actions (P&MAs) sections lay out the key management decisions, adoptions of policies, and implementation of projects which the GSA intends to undertake in order to achieve the monitoring objectives and determine progress toward the SMCs presented in the previous sections.

Community Feedback on the Draft-GSP

The following are community comments¹¹² that relate to the projects and management actions of the ETGSA GSP:

"A mitigation program should be included in the GSP to protect domestic water users, especially if the groundwater levels are expected to lower, or contaminants are liable to move due to P&MAs."

"Water recharge programs need to be carefully studied and sited to avoid degradation of water supply. If supply is degraded, then a mitigation program should be in place to help those affected."

Discussions at the GSP review meetings focused on concerns regarding lack of clarity as to what actions would be taken by the GSA to reduce groundwater use by all stakeholder groups. Community members

¹¹¹ 23 CCR §354.42 and Water Code §10733.2.

¹¹² Comments in blue were received at the Porterville workshops.

were also concerned about the potential dewatering of wells, especially considering drinking water use only accounts for a small amount of water in the GSA.

Recommendations to DWR

It is critical to have a clear understanding of proposed P&MAs laid out in the GSP in order to determine the likelihood of ETGSA achieving sustainability goals.

Pursuant to 23 CCR §355.4(b)(4) and 23 CCR §355.4(b)(5), DWR must make a determination of “whether the interests of the beneficial uses and users of groundwater in the basin, and the land uses and property interests potentially affected by the use of groundwater in the basin, have been considered” and “whether the projects and management actions are feasible and likely to prevent undesirable results and ensure that the basin is operated within its sustainable yield.” However, for the reasons identified below, we do not believe that the GSP includes sufficient detail regarding P&MAs in order for DWR to make such determinations as required by 23 CCR §355.4(b).

In light of this, we recommend that DWR find the ETGSA GSP to be incomplete pending the adoption of the following recommendations. If DWR finds that one of our suggestions cannot reasonably be made in 180 days, DWR should require that revisions to the GSP be included within the 180-day cure period committing the ETGSA to address these shortcomings, and laying out a clear plan to accomplish the goal, to including a funding mechanism if appropriate. If the GSA fails to comply with these recommendations, DWR should find the Plan inadequate:

- **Identify the accounting plan or mechanism for each type of user that will be used to create individually tailored allocations, or, at a minimum identify key policies that will be incorporated into the groundwater accounting system that will ensure that DACs, small community water systems, and domestic well users will have access to safe, clean, affordable, and accessible drinking water.** The GSP describes a groundwater accounting system that will track groundwater usage for individual landowners and the five ETGSA management areas (i.e., Porterville Community Management Area [MA], Terra Bella Community MA, Ducor Community MA, Kern-Tulare MA, and Greater Eastern Tule MA) in a central database. According to §7.2.1 of the GSP, tools such as monitoring, debiting, crediting, capping groundwater consumptive use, and carry-over policies and mechanisms will be used to track groundwater use, track water credits (groundwater and/or surface water) and develop water budgets for individual landowners.¹¹³ However, the GSP does not clearly describe how these tools will be applied to different water users, including agriculture, M&I, and domestic well users. Ducor CSD expressed concerns that the groundwater quantity allocated to the district would not meet the full potential system capacity and use by all existing parcels in the community, or that it would account for the projected 1.3% annual population growth rate described in the Tulare County hamlet plan. With extensive discussion at meetings of the ETGSA Board and Advisory Committees about the creation of a market for the sale and purchase of groundwater pumping shares, an under-allocation could have serious impacts on the ability of the district to provide reliable drinking water service at an affordable rate to community residents.
- **Include all details for the listed P&MAs as required by the SGMA regs and communicate the details of these future projects to the public through an active stakeholder outreach and**

¹¹³ ETGSA GSP, §7.2.1, pg.280.



communication process that proactively seeks to include members of DACs. The GSP identifies managed aquifer recharge (MAR) and banking projects as P&MAs, and provides examples of the types of projects that could be implemented by the ETGSA or individual landowners. Pursuant to 23 CCR §354.44, GSPs must include, “the status of each project and management action, including a time table for expected initiation and completion, and the accrual of expected benefits,” and, “an explanation of the benefits that are expected to be realized from the project or management action, and how those benefits will be evaluated” among other detailed information. The ETGSA GSP does not identify specific locations, anticipated size of recharge projects, estimated volume of storage and other benefits, or estimated costs for such projects, and thus limited information is available for the public to review regarding these P&MAs.

- **Assess the impacts and identify the benefits of the water supply augmentation projects near DACs and small water systems and explicitly describe how risks to water quality will be evaluated and monitored as a part of the development of the specific recharge projects.** The GSP also does not describe how future recharge projects will be monitored or include a discussion of potential water quality impacts that can result from these projects. It is important to consider that, depending on the source water used and where the recharge project is sited, recharge projects have the ability to improve or degrade groundwater quality. In addition, recharge projects have the potential to mobilize contaminants, including by mobilizing surface and shallow soil contaminants through percolation, spreading existing contaminant plumes by altering the groundwater flow gradient, and mobilizing naturally occurring compounds through changes in geochemistry due to the introduction of a different water type, among other mechanisms. As recommended in the 2019 *Stanford A Guide to Water Quality Requirements Under the Sustainable Groundwater Management Act*, “in addition to complying with any regulatory requirements, GSAs undertaking recharge or other active management actions should consider developing a sufficient understanding of the interactions between subsurface geology, geochemistry and GSP projects in their basin. The development of sufficient monitoring networks, capable of detecting changes in groundwater quality conditions related to active management, will be critical to understanding these interactions.” One way these proposed projects can be improved is by better identifying the potential impacts and benefits that might occur for these projects in order to proactive plan to avoid undesirable impacts to drinking water users.
- **The GSP should discuss what the implications of the uncertainty in P&MAs is on the ETGSA’s ability to reach sustainability by 2040 and to maintain water levels pursuant to the SMCs.** The P&MAs identified in the GSP are inconsistent with those identified in Table 2-6 of the Tule Subbasin Setting.¹¹⁴ The P&MAs identified in the Tule Subbasin Setting Table 2-6 were reportedly incorporated into the GFM to develop the projected water budget, which was used as the basis for establishing sustainable yield estimates and water level MOs and MTs. The GSP identifies many “example” projects under each category, but does not clearly identify what projects are anticipated for implementation and their expected benefits.
- **Include projected population increases for all DACs.** As shown on Table 2-6 of the Tule Subbasin Setting, one of the identified P&MAs is, “population increase,” for the City of Porterville, which

¹¹⁴ ETGSA GSP, Appendix A, Table 2-6, Tule Subbasin Setting, pg. 1211.

is estimated to result in an increase of groundwater production of 9,500 AFY by 2040.¹¹⁵ It is further noted that Table 2-6 does not identify a population increase for any other cities or communities in the subbasin despite the previously noted summary from the Hamlet and Legacy Plans for the communities of Ducor and Terra Bella of a projected 1.3% annual population growth rate. It is not clear, (1) why the GSP identifies population increase for the City of Porterville alone as a project, and not other population increases (e.g., other DACs), or (2) how population increase is incorporated into the projected water budget for areas other than the City of Porterville.

- **The GSP should clearly indicate how the specified reductions of “transitional” groundwater pumping will be achieved through a P&MA, and include all required details for a P&MA pursuant to 23 CCR §354.44.** Table 2-7 of the Tule Subbasin Setting presents the, “Planned Transitional Pumping” for the ETGSA that was incorporated into the projected water budget for the subbasin and GFM.¹¹⁶ The table shows the percentage of over-pumping in excess of the consumptive use target for 5-year intervals from 2020-2040. However, the GSP does not identify a clear plan for the implementation or enforcement of a reduction in pumping, beyond the general description of a plan to develop a groundwater allocation program, described in §7.2.1.
- **Develop criteria for recharge projects that prevent unintended impacts to drinking water.** Groundwater recharge projects can have multiple benefits such as increasing groundwater storage and levels, as well as diluting contaminant plumes and improving groundwater quality. However, if not properly designed, recharge projects may mobilize nitrates, pesticides, and fertilizers, as well as naturally occurring contaminants, and can lead to the further degradation of groundwater quality, impacting drinking water wells. Currently, it is unclear if these proposed projects include precautions of groundwater quality degradation or if groundwater quality is included in the monitoring plan of these projects. In order to develop recharge projects that move the subbasin towards sustainability, avoid the further degradation of groundwater, and improve drinking water conditions, we recommend the following considerations for this recharge criteria¹¹⁷:

1. When selecting sites for on-farm recharge projects, GSAs can work with growers who are implementing some or all of the following in order to minimize the mobilization of pesticides and fertilizers:

- Using best management practices that optimize chemical use so residuals do not enter recharge water;
- Growing crops that require fewer fertilizers (e.g. legumes);
- Recharging during winter months (when less/no fertilizer is being used);

¹¹⁵ ETGSA GSP, Appendix A, Table 2-6, Tule Subbasin Setting, pg. 1211.

¹¹⁶ ETGSA GSP, Appendix A, Table 2-7, Tule Subbasin Setting, pg. 1213.

¹¹⁷Community Water Center. Guide to Protecting Drinking Water Quality Under the Sustainable Groundwater Management Act.

https://d3n8a8pro7vhmx.cloudfront.net/communitywatercenter/pages/293/attachments/original/1559328858/Guide_to_Protecting_Drinking_Water_Quality_Under_the_Sustainable_Groundwater_Management_Act.pdf?1559328858



- Minimizing fall applications of fertilizers and pesticides;
 - Not surrounded by dairy operations.
2. When implementing on-farm recharge projects, recharge on the same plot of land annually for a consecutive number of years in order to most effectively flush out and dilute residual contaminants (especially nitrate) left behind from previous applications. Continued flushing will also help reduce bicarbonate, calcium, and organic carbon transport which will limit their impact on the dissolution and release of uranium and/or arsenic.
 3. Prior to implementing any recharge project, identify all nearby drinking water wells (both public supply and private wells). Additional monitoring wells that collect groundwater quality samples may need to be installed in key areas to protect public health.
 4. Prior to implementing any recharge project, collect data to characterize the upper soil zone and groundwater quality, including the amount of fertilizer applied and any naturally occurring contaminants present in the soil. Monitor and adjust the quality of water being recharged in order to limit the mobilization of naturally occurring contaminants (e.g. monitoring oxygen, pH, electrical conductivity, and nitrate levels).
 5. Consider recharging through excavated points, ditches/canals, and other designated recharge basins in order to bypass soil layers with naturally occurring contaminants, pesticides, and/or nitrate.
- **Include a discussion of the criteria that would trigger implementation and termination of P&MAs as required by 23 CCR §354.44 (b)(1)(A).** The GSP identifies Fees and Incentives as a P&MA. As stated in §7.2.2, “The ETGSA may implement groundwater extraction fees and penalties to reach sustainability goals ... Together, fees and penalties will create an economic incentive to conserve water” and “full implementation of this Action is anticipated to occur in the year 2020”. However, the GSP does not include a description of the circumstances under which groundwater extraction fees will be implemented.
 - **Include a Drinking Water Well Mitigation Program.** A GSP which lacks a mitigation program to prevent and mitigate the short-term effects and long-term impacts of pP&MAs on the residents of DACs as to the safety, quality, affordability, or availability of domestic water, violates both the Human Right to Water and SGMA itself.

The Human Right to Water makes it, “the established policy of the state that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes.”¹¹⁸ Although the HR2W is a relatively new law, the intent behind it is not; the California legislature has recognized that water used for domestic purposes has priority over all other uses since 1913.¹¹⁹ Reserving top priority for domestic water use was first codified in 1943, in Water Code §106, which declares it, “established policy of this State that the use of water for domestic purposes is the highest use of water and that the next highest use is

¹¹⁸ Water Code §106.3 (a).

¹¹⁹ Senate Floor Analysis, AB 685, 08/23/2012.



for irrigation.”¹²⁰ In 1989, §116270 (a) was added to the California Health and Safety Code, establishing that, “every citizen of California has the right to pure and safe drinking water.” And then in 2012, the HR2W added Water Code §106.3. Even more recently the passage of the Safe and Affordable Drinking Water Act by Governor Newsom indicates a clear State-level interest in protecting the drinking water access of California’s most vulnerable residents.

Taken as a body, these laws represent a century-long prerogative of protecting water used for domestic purposes against competing uses, with the HR2W representing only one of the most recent and strongest statement of this support.

To ensure compliance with the Legislature’s long established position, the HR2W requires that agencies, including DWR, must consider HR2W when “revising, adopting, or establishing policies, regulations, and grant criteria,” when those criteria are “pertinent” to domestic water users.¹²¹

A failure to include a drinking water well mitigation program to protect drinking water users from the side effects of P&MAs also violates SGMA itself. SGMA authorizes a GSA to undertake projects and perform management actions of the sort that will lead to groundwater degradation only when “necessary or proper” to carrying out its statutory mission.¹²² The limiting language “necessary or proper” greatly restricts the authority of the GSA when planning projects and management actions. It is not “proper” to implement P&MAs in a way to cause significant harm to a class of beneficial users to the benefit of another. This language requires a mitigation program to comply with other California laws.

The limiting term “necessary” invites a narrow legal interpretation, therefore most P&MAs that a GSA proposes and undertakes must be a “proper” exercise of its authority. Although “proper” is undefined in SGMA, a court would almost certainly find the term precludes the adoption of a P&MA that will violate another California law, such as the HR2W and correlative rights. Because the HR2W is not limited by the sustainability deadline of SGMA, if the result of a proposed project or management action is to temporarily reduce access to clean, safe, and affordable water for domestic use, the HR2W is still violated whether or not the sustainability goal will be met post hoc. This would apply both to Water Code §106.3 (a) and (b). Such a P&MA would not be a proper exercise of the GSA’s authority, and if it is not truly necessary (that is, ruled “necessary” by a court), then the GSA could not authorize the project or management action.

However, if the GSA has in place a mitigation program that prevents the reduction in quality, affordability, and accessibility guaranteed by the HR2W, and has necessary mitigation programs to ensure should negative impacts do occur, that people are not left without safe and affordable

¹²⁰ This policy is also noted in the Legislative Counsel’s Digest for AB 685.

¹²¹ Water Code §106.3 (b).

¹²² Water Code §10726.2: *Additional Authorities of Groundwater Sustainability Agency Relating to Acquisitions; Augmentation of Local Water Supplies; Transfers and Exchanges of Water; and Treatment*: “A groundwater sustainability agency may do the following . . . (b) Appropriate and acquire surface water or groundwater and surface water or groundwater rights, import surface water or groundwater into the agency, and conserve and store within or outside the agency that water for any purpose necessary or proper to carry out the provisions of this part, including, but not limited to, the spreading, storing, retaining, or percolating into the soil of the waters for subsequent use or in a manner consistent with the provisions of §10727.2... (f) Transport, reclaim, purify, desalinate, treat, or otherwise manage and control polluted water, wastewater, or other waters for subsequent use in a manner that is necessary or proper to carry out the purposes of this part.” (Note: “Part,” as used here in the Water Code, refers to the SGMA statutes as a whole as incorporated into the Code.)

drinking water, then there is no violation of residents’ rights, and the GSA action would be “proper”, even if not “necessary.” Since the action must only be, “necessary or proper,” to be allowed by SGMA.

Furthermore, in choosing this language the Legislature clearly did not intend to authorize GSAs to “pass the buck” to other programs such as SAFER, the Central Valley Basin Plan Amendments, or State Water Board enforcement actions when its P&MAs create drinking water issues that those programs and authorities must fix.¹²³ For a GSP to be a “proper” exercise of a GSA’s authority under SGMA, it must respect the HR2W within the GSP document itself, and not rely on the possibility of an outside program stepping in to prevent or mitigate the harm. DWR must review the GSP for HR2W compliance, not the GSP plus unidentified backstop programs. This requires a mitigation program for declining water levels and/or the degradation of water quality caused by P&MAs authorized by the GSP.

A drinking water well mitigation program could include a combination of different strategies such as: replacing impacted wells with new, deeper wells, connecting domestic well users to a nearby public water system, or in the short-term, providing bottled water and/or tanked water. Note, short-term solutions such as bottled or tanked water must be followed-up with a long-term solution, such as new wells or consolidation. Short term interim solutions such as these are not cost-effective over the long term, and communities should not be forced to reside indefinitely without safe drinking water coming out of the taps in their homes.

To aid the GSA in developing a robust mitigation plan, CWC conducted its own study on existing well mitigation programs in different contexts. ETGSA did not adopt our proposals. In light of the clear legal necessity for a drinking water well mitigation program, we hope that DWR will encourage the GSA to follow through on developing a well mitigation plan, and commit to doing so in revisions to the GSP itself. DWR should require the GSA to have the program in place before engaging in any P&MAs, and we look forward to working with the GSA to develop the plan.

GSP Section 8: Notices and Communications

SGMA and Regulatory Requirements

A GSP must contain a public outreach plan.¹²⁴ Per 23 CCR §354.10(d)(3), the public outreach plan shall include:

1. An explanation of the Agency's decision-making process.
2. Identification of opportunities for public engagement and a discussion of how public input and response will be used.
3. A description of how the Agency encourages the active involvement of diverse social, cultural, and economic elements of the population within the basin.

¹²³ That said, financing from other programs should be considered when designing a mitigation program. For instance, compliance with the HR2W will raise the priority for funding projects under Prop. 68. But a GSP that allows the degradation of drinking water supplies without a mitigation program in place would still violate the HR2W.

¹²⁴ 23 CCR §354.10.

4. The method the Agency shall follow to inform the public about progress implementing the Plan, including the status of projects and actions.

The ETGSA GSP

In general, ETGSA has made efforts to hold transparent and appropriately noticed public meetings of the board and advisory committees. ETGSA was collaborative in holding community outreach meetings and workshops which were bilingual, and some bilingual materials are provided on the website, notably including the Stakeholder Survey. ETGSA worked with CWC and Self-Help Enterprises (SHE) on a series of public outreach meetings in the spring of 2019, including review and co-development of materials and Spanish translations. During the public comment period for the draft GSP, CWC was given the opportunity to develop community workshop formats and materials which we felt would be the most conducive to facilitating community understanding of and engagement in the process with the collaboration of the ETGSA. Such collaborative engagement was productive and it is recommended that it should continue through the implementation of the GSP.

ETGSA was collaborative in its development and implementation of their Communication and Engagement Plan, which is included as Appendix 8-A. CWC was provided with the draft plan and given time to provide meaningful feedback and comments before it was brought to the board for a vote on adoption. Elements of this plan which should be recognized include: identifying stakeholders and laying out the decision-making process; a stakeholder survey; documents issues with water access; describes venues for engaging; and describes the outreach timeline. It should be noted, The Communication and Engagement Plan is omitted from the overall GSP Table of Contents “Appendices Attached to Corresponding Section,” which would make it much easier to find for members of the general public reviewing the GSP to see what efforts have been made or plan to be made.

However, like the community comments below indicate, there are still areas the ETGSA can work on to improve its communication strategies.

Community Feedback on the Draft GSP

The following are community comments¹²⁵ that relate to the communication and outreach efforts of the ETGSA:

“We feel strongly that rural residents, including some dry-land farmers did not receive adequate notice.”
“There was an over-reliance on the internet and social media, for notice; many residents don’t have access in the Ducor area.”
“It is important that the Porterville community is able to take part, because this will have a major impact on our quality of life.”
“It does not seem that enough was done to outreach and engage. As the plan is implemented there should be a

¹²⁵ Comments in red were received at the Ducor workshop and blue comments were received at the Porterville workshops.



separate 90-day comment period on each policy point, but it seems clear this won't happen. 90 days to comment on a 1200 pg document is not realistic. People won't realize they should have been engaged until it impacts them directly and then it will be too late."

Recommendations for DWR

We fear that without adopting a more robust public outreach plan the barriers identified by community members will continue to impede participation. Also, while technically compliant with SGMA, the paucity of actual community participation in the GSP-drafting process speaks to the failure of the ETGSA to engage in useful outreach. Finally, this lack of outreach is reflected in the obvious outcomes of the GSP's SMCs: the massive dewatering of wells used for drinking water purposes by low-income communities of color.

Public engagement is required by both SGMA and other California law. SGMA requires that a GSA "shall consider the interests of all beneficial uses and users of groundwater," which expressly includes "[h]olders of overlying rights" and "[d]isadvantaged communities, including, but not limited to, those served by private domestic wells or small community water systems."¹²⁶

SGMA also specifically requires GSAs to "encourage the active involvement of diverse social, cultural, and economic elements of the population within the groundwater basin prior to and during the development and implementation of the groundwater sustainability plan."¹²⁷ The regulations similarly require that a GSP summarize and identify, "opportunities for public engagement and a discussion of how public input and response will be used."¹²⁸ The GSA thus must engage, "diverse social, cultural, and economic elements of the population within the basin."¹²⁹ The regulations recognize that failure to engage adequately with a diverse cross-section of the public undermines the likelihood that a GSP will avoid undesirable results for under-represented groups of beneficial users and meet its sustainability goal.¹³⁰

Finally, 23 CCR §355.4(b)(1) requires the SMCs be found "reasonable" by DWR before it can approve them. A plan that will dewater upwards of 80% of drinking water wells¹³¹ before taking any measure to curtail pumping is perhaps reasonable to the agricultural industry but it is manifestly not reasonable to all beneficial users, including farmworker communities whose domestic wells are dewatered. Given the current economic uncertainty surrounding the COVID-19 pandemic response, this aggressive setting of

¹²⁶ Water Code §10723.2.

¹²⁷ Water Code §10727.8.

¹²⁸ 23 CCR §354.10(d)(2).

¹²⁹ Guidance Document for Groundwater Sustainability Plan; Stakeholder Communication and Engagement, p. 1.

¹³⁰ 23 CCR §355.4(b)(4).

¹³¹ At the MTs, 74-83% of domestic wells equalling 100-113 wells, serving 1,825-2,019 residents, will be fully or partially dewatered. The Water Foundation Whitepaper, April 2020: "Estimated Numbers of Californians Reliant on Domestic Wells Impacted as a Result of the sustainable management criteria Defined in Selected San Joaquin Valley Groundwater Sustainability Plans and Associated Costs to Mitigate Those Impacts." https://waterfdn.org/wp-content/uploads/2020/05/Domestic-Well-Impacts_White-Paper_2020-04-09.pdf. Tables 3a & 4a.

water levels would seem even less reasonable for many residents residing within the ETGSA boundaries. In this sense, the lack of public engagement is reflected in the starkly unreasonable nature of the SMCs.

Therefore, we recommend that DWR should find the Plan incomplete pending the adoption of the following changes to the GSP. Ideally these will go into effect quickly, so that the community can be more engaged with other substantive changes to the sustainability indicators that DWR should also require:

- **Partner with other educational programs to leverage resources and explore opportunities to educate different generational groups.**
- **Consider hiring a bilingual Stakeholder and Outreach Communication specialist as part of the ETGSA staff.**
- **Continue to provide bilingual (English and Spanish) information and materials on the website, via email and consider inserting short notices (notices must include key messages, visuals and information that is relevant to the average water user) in water bills and/or community newsletters.** The Dymally-Alatorre Bilingual Services Act requires that public agencies serving over 10% of non-English speaking constituents provide appropriate translation services.¹³² At a minimum, this information should be provided during plan updates, and prior to critical decisions. In particular, the draft GSP released during the formal comment period should have included materials highlighting key summaries of the GSP. Critical decision points can also include the adoption of groundwater fees, or the approval of new groundwater projects or management actions.
- **Live interpretation at board meetings and community outreach events.** Given the large number of Limited English Proficiency (LEP) residents in the ETGSA area, the GSA should commit to providing these residents with live interpretation during meetings, as required by appropriate California law and the SGMA statute.
- **Host GSP workshops and public outreach meetings in the evening so that more community members are able to attend.** Weekdays between 6PM and 8PM was identified by residents as a convenient time to attend a public meeting.
- **Utilize existing community venues for community meetings, workshops, and events to provide information.** For example, the GSA could hold educational workshops during local water board and school district board meetings, or after church services. Venues should be carefully selected in order to meet the needs of the targeted audience.
- **Identify social media channels, websites, and other media outlets, including ones in other languages such as Spanish, that are readily accessible to the community.** The GSP should be revised with a policy requiring a broader outreach effort in the future.
- **Identify and work with key community leaders/trusted messengers to distribute information and encourage community participation.** These could include churches, civic groups, clubs, non-profit organizations, and schools.
- **Actively seek partnerships with other educational programs to leverage resources and explore opportunities to educate different generational groups.**

¹³² California Government Code §7290.



Conclusion

We thank you for your consideration of these comments related to the ETGSA GSP. Please reach out to us with any questions or comments concerning the identified issues or any suggestions made for its improvement.

GSP Remedies: Summary Table

Recommendation	Cure Period
Introduction / Sustainability Goal	
Revise the definition of the sustainability goal to acknowledge Water Code §106 and §106.3 (HR2W) as a foundational consideration of the GSP.	180 days
Identify how the estimated cost of implementation was calculated.	180 days
Clearly identify how the mechanisms will collect revenue from the relative funding sources.	180 days
Plan Area	
Revise Table 3-4 and Figure 3-11 to include Poplar-Cotton Center and Richgrove.	180 days
Revise §3 to include and identify locations of domestic well communities.	180 days
Revise §3.8.3 to include a map of existing percolation ponds and groundwater recharge sites and define responsibilities for maintaining quality standards.	180 days
Basin Setting	
<i>Hydrogeologic Conceptual Model & Water Budget</i>	
Provide more clarity on the methods used to develop the historical water budget.	180 days



As part of the assessment of groundwater extraction as required by 23 CCR §354.18(b)(3), the GSP should include specific information on groundwater used by public water suppliers.	180 days
Provide more detail on the projected water budget, including all assumptions and time series used in the GFM. The GSP should also discuss in detail how the increase in the projected municipal pumping was determined so the public can assess the accuracy of the municipal pumping specified in the projected water budget.	180 days
Clarify information regarding known groundwater quality.	180 days
<i>Management Areas</i>	
Revise §4.5 to clarify the GSA’s intentions regarding the proposed Friant-Kern Canal Subsidence Management Area.	180 days
Provide more clarity about how management areas will be implemented, including providing more detailed descriptions on the sustainable management criteria (SMCs) and projects and management actions (P&MAs).	180 days
Sustainable Management Criteria	
<i>Groundwater Levels</i>	
Include quantifiable sustainable management criteria (SMCs) for all identified representative monitoring wells (RMWs) in the ETGSA, or clarify the inconsistency with the Tule Subbasin Coordination Agreement.	180 days
Clarify the rationale for the water level decline used to develop MTs/MOs, and describe how the approach to develop MTs/MOs is protective of diverse drinking water users.	180 days
In order to assess how MOs and MTs may affect the interests of beneficial uses and users of groundwater, per 23 CCR §354.28(b)(4), the GSP should include the results of the Water Foundation assessments, or conduct and present a similar robust analysis assessing the potential impacts of SGMA on domestic well users that adequately quantifies and captures well impacts at the minimum thresholds, measurable objectives, and proposed undesirable results.	180 days



Clarify how the projected water level decline before reaching the UR would not be not significant and unreasonable as described in 23 CCR §354.26.	180 days
Clarify the process for evaluating minimum threshold exceedance and the potential actions to address exceedance.	180 days
Develop a protective minimum threshold near vulnerable communities, including domestic wells, to avoid localized impacts and ensure the protection of these important water sources.	180 days
<i>Groundwater Quality</i>	
Clarify inconsistencies in the various locations where groundwater quality SMC's are discussed, particularly between the ETGSA GSP and the Tule Subbasin Coordination Agreement.	180 days
Clearly identify and describe the current level of contamination at each representative monitoring well and attribute specific numeric values for MTs/MOs for each contaminant of concern.	180 days
Provide more clarity about how the GSA will determine whether MTs or Undesirable Results will be evaluated.	180 days
Revise SMCs to be more protective of DAC and drinking water stakeholders, or demonstrate how these will be sufficient to ensure that the stated water quality Undesirable Result of "impacting the long-term viability of the groundwater resource" for drinking water beneficial users will be avoided.	180 days
Revise the Undesirable Results for groundwater quality as follows: <ul style="list-style-type: none"> ● Any degradation above the MCL; or ● If under the MCL, a degradation of more than 25%, or approaching 75% of the MCL ● If over the MCL and any further degradation 	180 days
Provide an analysis of water quality data in the GSA with a discussion of if the contaminant qualifies as a Contaminant of Concern to be included in the GSP.	180 days
Include maps of existing contaminants of concern in the ETGSA.	180 days



Include an analysis of the relationship between changes in groundwater levels and groundwater quality concentrations.	180 days
Consider working with local and regional water agencies or the county to implement groundwater quality remediation projects that could improve both quality as well as levels and to ensure groundwater management does not cause further degradation of groundwater quality.	180 days
Monitoring Network	
Include specific discussions of the water quality conditions and trends for applicable constituents and uses within the ETGSA area. It is further recommended that this analysis clearly include an evaluation of the change in water quality constituent concentrations relative to change in water levels, particularly over drought periods, to evaluate the potential relationship between water quality and groundwater management activities.	180 days
Provide greater clarity on how monitoring sites and sampling schedules will ensure effective monitoring of degraded groundwater quality.	180 days
The GSP should fully consider all available water quality data in its analysis of groundwater conditions and the hydrogeologic conceptual model.	180 days
Describe how the monitoring network will detect impacts to domestic well users, or else propose improvements to the existing network to cover these data gaps.	180 days
Clarify how the GSA plans to align groundwater monitoring efforts and the sustainable management criteria with any emerging contaminants of concern and new MCLs.	180 days
Projects and Management Actions	
Identify the accounting plan or mechanism for each type of user that will be used to create individually tailored allocations, or, at a minimum identify key policies that will be incorporated into the groundwater accounting system that will ensure that DACs, small community water systems, and domestic well users will have access to safe, clean, affordable, and accessible drinking water.	180 days
Include all details for the listed P&MAs as required by the SGMA regulations and communicate the details of these future projects to the public through an	180 days



active stakeholder outreach and communication process that proactively seeks to include members of DACs.	
Assess the impacts and identify the benefits of the water supply augmentation projects near DACs and small water systems and explicitly describe how risks to water quality will be evaluated and monitored as a part of the development of the specific recharge projects.	180 days
The GSP should discuss what the implications of the uncertainty in P&MAs is on the ETGSA’s ability to reach sustainability by 2040 and to maintain water levels pursuant to the SMCs.	180 days
Include projected population increases for all DACs.	180 days
The GSP should clearly indicate how the specified reductions of “transitional” groundwater pumping will be achieved through a P&MA, and include all required details for a P&MA pursuant to 23 CCR §354.44.	180 days
Develop criteria for recharge projects that prevent unintended impacts to drinking water.	180 Days
include discussion of the criteria that would trigger implementation and termination of P&MAs as required by 23 CCR §354.44 (b)(1)(A).	180 days
Include a Drinking Water Well Mitigation Program.	180 days
Notices and Communications	
Partner with other educational programs to leverage resources and explore opportunities to educate different generational groups.	180 days
Consider hiring a bilingual Stakeholder and Outreach Communication specialist as part of the ETGSA staff.	180 days
Continue to provide bilingual (English and Spanish) information and materials on the website, via email and consider inserting short notices (notices must include key messages, visuals and information that is relevant to the average water user) in water bills and/or community newsletters.	180 days
Live interpretation at board meetings and community outreach events.	180 days



Host GSP workshops and public outreach meetings in the evening so that more community members are able to attend.	180 days
Utilize existing community venues for community meetings, workshops, and events to provide information.	180 days
Identify social media channels, websites, and other media outlets, including ones in other languages such as Spanish, that are readily accessible to the community.	180 days
Identify and work with key community leaders/trusted messengers to distribute information and encourage community participation.	180 days
Actively seek partnerships with other educational programs to leverage resources and explore opportunities to educate different generational groups.	180 days