August 19th, 2019

[sent via email]

Hicham Eltal, Merced GSP Contact
744 W 20th St., Merced, CA 95340
mercedsgma@woodardcurran.com

Re: Comments on Draft Merced Subbasin Groundwater Sustainability Plan

Dear Merced Groundwater Sub-basin GSAs:

Leadership Counsel for Justice and Accountability works alongside low income communities of color in the San Joaquin Valley and the Eastern Coachella Valley. We work in partnership with community leaders in the communities of Planada and South Merced to advocate for local, regional and state government entities to address their communities' needs for the basic elements that make up a safe and healthy community: clean, safe, reliable and affordable drinking water, affordable housing, effective and safe transportation, efficient and affordable energy, green spaces, clean air, and more.

We have been engaged in the Sustainable Groundwater Management Act (SGMA) implementation process because many of the communities with whom we work are dependent on groundwater for their drinking water supplies, and have already experienced groundwater quality and supply issues. Historically, communities we work with have not been included in decision-making about their precious water resources, and their needs have not been at the forefront of such decisions. In 2012, California recognized the Human Right to Drinking Water as a statewide goal. Additionally, state law requires that GSAs avoid disparate impacts on protected classes. Now, because of SGMA's requirements for a transparent and inclusive process, groundwater management under the new law has the opportunity to include disadvantaged communities in decision-making and create groundwater management plans that understand their unique vulnerabilities, are sensitive to their drinking water needs, and avoid causing a disparate impact on low income communities of color.

We submit these comments to elevate our concerns that the Merced Subbasin's (GSAs) Draft Groundwater Sustainability Plan (Draft GSP) provide for public review is incomplete, does not adequately analyze drinking water impacts and does not incorporate drinking water impacts into the management plan. Additionally, the Draft GSP neither adequately analyzes nor incorporates input from disadvantaged communities, and will create a disparate impact on protected classes unless modified to protect drinking water resources for disadvantaged communities. We include herein our comments with respect to deficiencies in the Draft GSP and as well as recommendations for improvements.

Draft GSP is Incomplete

The Draft GSP omits critical data regarding the water budget, drinking water impacts, projects and management actions. For example, there has been no analysis of how many wells will go dry or become potentially contaminated from the policies proposed in the Draft GSP, including the proposed sustainable management criteria. Additionally, as explored below the GSP's description of the water budgets lacks the necessary data, assumptions and approaches used to determine the water budgets. The GSP also lacks information on the impact of and timelines for key projects and management actions.

The GSP cannot be adopted until all information on data and assumptions used in the development of the water budget, drinking water impacts from all sustainable management criteria, and details about projects and management actions, are made available to the public for public review during a new review period. In re circulating the GSP for public review, the GSA must analyze the drinking water impacts of setting sustainable management criteria, follow a concrete methodology for considering those impacts in creating new sustainable management criteria, and include that impacts analysis and methodology in the revised Draft GSP.

Inadequate Transparency, Public Process, Consideration of Public Input and Representation Undermine the Value and Efficacy of the Draft GSP

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."[1] The emergency regulations similarly require that a Draft GSP summarize and identify "opportunities for public engagement and a discussion of how public input and response will be used."[2] The GSA thus must engage "diverse social, cultural, and economic elements of the population within the basin."[3]

We dispute the Draft GSP's statement that the Stakeholder Committee represented "the broad interests and geography of the region."[4] The Stakeholder Committee was composed mainly of members representing agricultural interests. With only one disadvantaged community (DAC) and one Urban Water District representative on the Committee, it was often difficult for our organization's and others' advocacy for drinking water concerns to be fully considered and incorporated into the Plan. Because of the disproportionate number of agricultural representatives on the committee, the Stakeholder Committee cannot be considered to be adequately representative of all beneficial user groups in the subbasin. Given this unbalanced representation of Stakeholders in the Committee and lack of other avenues for representatives of other beneficial uses to provide input throughout the development of the Draft GSP, the GSAs have not fulfilled their requirements under SGMA to seek out and fully consider all beneficial users' interests in the Draft GSP formation process. Accordingly, the GSAs should conduct a fully accessible public workshop on

[1] Water Code § 10723.2.
[2] 23 CCR 354.10(d).
[3] Guidance Document for Groundwater Sustainability Plan; Stakeholder Communication and Engagement, p. 1.
[4] Draft Merced Subbasin GSP pg. 1-12, dated July 2019.

the Draft GSP during a public comment period wherein community feedback can be received, addressed, and incorporated into the final Plan.

To our knowledge, the GSAs have no plans to hold public workshops to explain the Draft GSP to the public and allow for questions, answers and public feedback in real time. Upon releasing the 339 page Draft GSP with 416 pages of appendices on July 19th, 2019, the GSAs made the decision to only allow 30 days for the public to submit comments on the GSP. Of the 12 GSP development processes in which we are engaged, this GSP is the only one with a public comment period shorter than 45 days. While the GSAs plan to have a joint meeting to review written comments with the other basin GSAs, a separate public workshop or hearing focused on discussing the Draft GSP would have allowed for the GSAs to inform the public about the contents of Draft GSP, answer stakeholder questions about the Draft GSP, and facilitate informed comments and feedback on the Draft GSP. The short review period further inhibits input from all beneficial users. Furthermore, the Draft GSP is not complete as released and should therefore be taken back to the public for more time with complete information regarding drinking water impacts.

To address concerns over public engagement, transparency, and inclusivity, the GSAs must:

- Release to the public information about drinking water impacts and the methodology used to consider those impacts in the creation of sustainable management criteria and other policy decisions.
- Hold a robust public comment period by re-opening the comment period for at least 60 days before a public hearing to adopt the Draft GSP.
- Hold at least one public workshop to discuss the Draft GSP prior to GSP adoption, and incorporate public input received at that workshop into an updated GSP.
- Accurately describe the stakeholder interests represented on the Stakeholder Committee by listing each representative and which beneficial user group they represented.
- Plan to obtain and meaningfully consider public input from all beneficial user groups in the implementation of the GSP. The GSAs should host public workshops and present at meetings with all types of beneficial user groups before decisions are made regarding GSP updates or projects and management actions. To reach disadvantaged groups, GSA staff and consultants should present relevant information and solicit feedback at meetings in disadvantaged communities regularly. Public workshops must provide interpretation in any languages needed, and should follow robust and effective community outreach to ensure that the most vulnerable drinking water users are informed and included. Public engagement may be funded through SGMA-related fees and/ or state grants if necessary.

The Data and Assumptions Underlying the Water Budgets are Unclear, Inadequate and Incomplete

SGMA defines the term "water budget" to mean "an accounting of the total groundwater and surface water entering and leaving a basin including the changes in the amount of water stored."[5]The SGMA emergency regulations similarly require that every GSP include a water budget "that provides an accounting and assessment of the total annual volume of groundwater

[5] Water Code Section 10721(y).

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."[6] In developing a water budget, the GSP must utilize the "best available information and best available science."[7]

In calculating the current water budget, the GSP must "quantify current inflows and outflows for the basin *using the most recent hydrology, water supply, water demand, and land use information*."[8] In contrast to this requirement, the data utilized to estimate the projected water budget is out-of-date, incomplete and inaccurate.

First, the Draft GSP does not accurately explain or include all urban water users, or rely on the most recent information. According to the Draft GSP, urban water demand is based on the 2015 Urban Water Management Plan (UWMP) and municipal pumping records. However, no information is provided on the magnitude of the urban demand, population information, or per capita water use specified in the model. The Draft GSP does not identify which municipal water providers provided data and which required estimation of water demand. Nor does it discuss how estimated water use from rural domestic water users or small community water systems was represented in the model or the magnitude of these values.

Second, the Draft GSP does not adequately factor in population growth and expanded development in cities and communities in the subbasin. SGMA requires that a "groundwater sustainability plan shall take into account the most recent planning assumptions stated in local general plans of jurisdictions overlying the basin."[9] The regulations also require that projected water demand must take into account, among other things, population growth.[10] Accounting for future growth within the water budget must also include accounting for reasonable growth in DACs. This information is critical to incorporated into the water budget to ensure that communities have a stable source of water when the GSP is implemented. The GSAs must look to General Plans, Community Plans, Specific Plans, Regional Transportation Plans, LAFCO Municipal Service Reports, Regional Housing Needs Assessments, and Department of Finance population estimates to accurately assess future drinking water needs in disadvantaged communities in the subbasin. If such documents do not contain information about population projections in DACs, the GSAs should communicate directly with residents of DACs and community-based nonprofits working with local communities to estimate future population growth.

To form its projected land use conditions baseline, the GSAs list direct communication on future projections with local agencies and farmers.[11] Because SGMA requires that the interests of all beneficial users and uses to be considered in developing GSPs,[12] there must be direct communication with all relevant stakeholders and representatives of all beneficial uses, including

[6] 23 CCR 354.18(a).
[7] 23 CCR 354.18(e).
[8] 23 CCR 354.18(c)(1) [emphasis added].
[9] Water Code § 10726.9.
[10] 23 CCR 354.18(c)(3)(B).
[11] Draft Merced Subbasin GSP pg. 2-118, dated July 2019.
[12] Water Code section 10723.2.

people reliant on domestic wells. This communication should be through meetings held in communities, facilitated where possible by collaboration with community-based nonprofits.

Lastly, it is unclear why the GSAs chose the historical baselines that they did. The methodology that the GSAs used to choose the historical baseline of 1969 to 2018 should be clarified.[13] It should also be explained why the GSAs chose a different period as their baseline for their current and projected water budget.[14]

As the attached technical report highlights other deficiencies with the water budgets, and development thereof:

- The Draft GSP presents only a brief listing of the data sources used to specify conditions for the model periods used to develop the water budgets. There is very little discussion on how the model input relative to the water budget was developed from the listed sources. It is noted in the text that additional data used for model development is included in Appendix D (MercedWRM Model Documentation), but Appendix D is still under development and was not included in the Draft GSP. Therefore, any additional data related to the water budget could not be reviewed by the public during this comment period. The Draft GSP made available to the public is incomplete, and a full evaluation of the model and assumptions cannot be made.
- According to the Draft GSP, urban water demand is based on the 2015 Urban Water Management Plan (UWMP) and municipal pumping records.[15] However, no information is provided on the magnitude of the urban demand, population information, or per capita water use specified in the model. The Draft GSP does not identify which municipal water providers provided data and which required estimation of water demand. Nor does it discuss how estimated water use from rural domestic water users or small community water systems was represented in the model or the magnitude of these values. Therefore, based on the limited data provided in the Draft GSP, the public cannot review the drinking water demand estimates for domestic users, community water systems, or large urban water suppliers and make an assessment as to the appropriateness of the demands considered in the historical, current, or future water budgets.
- There is no specific information included in the Draft GSP on how historical land use was determined or how it varies over the historical water budget period. According to the Draft GSP, the current water budget uses 2013 CropScape data and the projected water budget uses the 2013 CropScape data, 2015 agricultural water management plan projections, and information from local agencies and farmers. No summary of acreages by land use type is provided so the accuracy of the representation of urban and agricultural areas cannot be assessed by the public. Without this information the public cannot assess how domestic well users and small community water systems are represented in the land use data.
- The majority of the Draft GSP section discussing the water budget focuses on the results of the water budget. These results are presented as average annual values for the entire subbasin which limit the ability for the public to evaluate and understand the impacts to DACs and small community water systems. Time series graphs of the water budget results

[13] Draft Merced Subbasin GSP pg. 2-136, dated July 2019
[14] Draft Merced Subbasin GSP Table 2-3 pg. 2-119, dated July 2019
[15]

are needed to evaluate if the water budget adequately represents the temporal variability and trends in drinking water demand. By presenting only subbasin-level water budget results and only as average annual values, the presented results are opaque with respect to drinking water use by DACs, as well as demands by other types of beneficial users.

- The Draft GSP does not include any discussion of the uncertainty in the data used for the model and its potential effects on the water budget results. The GSP should include an uncertainty analysis to identify the plausible range in water budget results and an indication of the magnitude of the effects these inherent uncertainties may have on the water budget results.
- The estimate of sustainable yield for the subbasin was determined using the Projected Conditions Baseline scenario. According to the Draft GSP, in this scenario, agricultural and urban demand is reduced across the model domain to achieve a net storage change of zero. Agricultural demand was reduced by reducing agricultural land use. Urban demand was reduced by reducing the per capita water use. However, the Draft GSP does not present information on how per capita water use reductions were determined or if they were applied equally to all drinking water users (municipal users, rural domestic users, small community waters systems, etc.). The document also does not include a discussion of how these reductions would affect domestic water users or small community water systems. Therefore, based on this, it is not clear how demands by drinking water users were considered in the sustainable yield calculation.

The Monitoring Network Is Inadequate With Respect to Groundwater Levels and Groundwater Quality.

The GSA's Monitoring Network is insufficient because its representative monitoring wells do not cover the entirety of the Subbasin. The GSAs must consider the interests of beneficial users including domestic well owners and disadvantaged communities,[16] and must avoid disparate impacts on protected groups pursuant to state law.[17] The Draft GSP lacks representative monitoring wells in areas of the subbasin where drinking water users may be particularly vulnerable to groundwater supply and quality issues, leaving the GSAs with no ability to measure and avoid significant and unreasonable impacts to those users. The GSAs must prioritize measures to address these data gaps and add more representative monitoring wells. The insufficiency of the

[16] Water Code sec. 10723.2.

[17] Gov. Code § 11135 ["No person in the State of California shall, on the basis of sex, race, color, religion, ancestry, national origin, ethnic group identification, age, mental disability, physical disability, medical condition, genetic information, marital status, or sexual orientation, be unlawfully denied full and equal access to the benefits of, or be unlawfully subjected to discrimination under, any program or activity that is conducted, operated, or administered by the state or by any state agency, is funded directly by the state, or receives any financial assistance from the state."]; Gov. Code § 65008 [Any discriminatory action taken "pursuant to this title by any city, county, city and county, or other local governmental agency in this state is null and void if it denies to any individual or group of individuals the enjoyment of residence, land ownership, tenancy, or any other land use in this state…"]; Government Code §§ 12955, subd. (l) [unlawful to discriminate through public or private land use practices, decisions or authorizations].

representative monitoring network poses a significant threat to the validity of the Plan at large, and therefore must be addressed immediately.

Representative Monitoring Wells

The GSAs have proposed a monitoring network of 50 wells, out of which only 25 have been designated as representative wells.[18] As the attached technical report notes, this represents only one well for over 153 square miles of groundwater subbasin, or 0.65 wells per 100 square miles. This monitoring well density is just barely within the established DWR guidance for monitoring well densities of between 0.2 and 10 wells per 100 square miles.[19] In addition, representative wells are generally located in the center of the subbasin, while domestic wells are distributed widely across the subbasin;[20] this results in approximately 1,100 out of approximately 3,600 domestic wells in the subbasin being located outside of the two-mile radius areas used to establish the Draft GSP's minimum thresholds as highlighted in the attached technical report. In particular, the domestic wells located in and around the DACs of El Nido, Planada, Le Grand, and south of the City of Merced are located outside of the areas being monitored for water levels. As such, there are no representative wells for groundwater levels or groundwater quality in the vicinity of these beneficial users. Furthermore, the areas not covered by the monitoring network are where the subbasin's shallowest wells are located, as indicated by the Merced County tanked water program, which tanked water out to many communities in the areas without monitoring wells.[21]

Consultants for the GSAs have cited this lack of data to justify why it cannot protect drinking water users from wells going dry at several subbasin meetings.[22] This stance is alarming, given that state law recognizes drinking water as the "highest use of water."[23] As such, it is imperative for the GSAs to include a plan for a robust monitoring network to fill those data gaps. In their Draft GSP, the GSAs have only proposed to install four more representative wells to fill in data gaps in groundwater levels in the three large data gap regions they have identified,[24] and plans to wait until a year after GSP approval by DWR (which may not be for another two years) to create a plan to fill data gaps.[25] Additionally, the GSA proposes to fill two of their data gap areas by relying on monitoring wells and data from existing programs such as the East San Joaquin Water Quality Coalition Groundwater Quality Trend Monitoring and Public Water System,[26] which is concerning as ESJWQC is still phasing in their groundwater trend monitoring network.[27] It is also unclear whether the additional wells will be at the correct groundwater depth to detect impacts to domestic wells.

[18] Draft Merced Subbasin GSP pg. 4-8, dated July 2019.
[19] DWR, 2016. Best Management Practices for the Sustainable Management of Groundwater, Monitoring Networks and Identification of Data Gaps (BMP #2), December 2018.
[20] Draft Merced Subbasin GSP pg. 4-3, dated July 2019.
[21] Draft Merced Subbasin GSP pg. 3-5, dated July 2019.
[22] Merced Subbasin Stakeholder Committee meeting, July 22, 2019, in which consultants stated that data is limited in some SDAC areas so they cannot include them in representative wells.
[23] Water Code § 106.
[24] Draft Merced Subbasin GSP pg. 4-15, dated July 2019.
[25] Draft Merced Subbasin GSP pg. 4-26, dated July 2019.
[26] Draft Merced Subbasin GSP pg. 4-26, dated July 2019.
[27] East San Joaquin Water Quality Coalition Groundwater Quality Trend Monitoring Workplan: Phase III.

To ensure that the representative wells within the monitoring network accurately monitor impacts to groundwater management for drinking water beneficial users, and does not create a disparate impact on protected groups, we make the following recommendations:

- Include all MAGPI wells in the representative monitoring network in order to include DACs such as Planada and Winton, so that those wells can measure compliance with goals for groundwater quality and quantity.
- Include a plan in the GSP to fill data gaps, and include an aggressive timeline to ensure prompt implementation of the plan. This plan should include installation of representative monitoring wells measuring groundwater quality and levels in DAC areas not currently covered by the monitoring network. These representative monitoring wells should also be designed to measure impacts at the level of community water system wells and domestic wells. In particular, new representative monitoring wells should be installed in or near the DACs of Planada, El Nido, and Le Grand to detect groundwater quality and supply impacts to those communities.
- All 50 wells in the monitoring network must be properly retrofitted as representative monitoring wells. Currently, only 25 of the 50 existing wells in the monitoring network are representative.
- Add the monitoring well proposed to be installed in El Nido to the representative monitoring well network by ensuring that it meets the requirements of being a representative monitoring well.

The Draft GSP Sustainable Management Criteria for Groundwater Levels are not Adequate

The Draft GSP's proposed minimum thresholds and undesirable results with respect to groundwater levels are not tied to sufficient information and criteria about their impact on beneficial users including drinking water users, and its measurable objective does not comply with its sustainability goals. The GSAs have not shown how they have considered the interests of beneficial users including domestic well owners and disadvantaged communities.[28] The resulting impact from the proposed sustainable management criteria will likely lead to disparate impacts on protected groups pursuant to state and federal law.[29]

The Proposed Minimum Threshold is not Sufficiently Protective

[28] Water Code sec. 10723.2.

[29] Gov. Code § 11135 ["No person in the State of California shall, on the basis of sex, race, color, religion, ancestry, national origin, ethnic group identification, age, mental disability, physical disability, medical condition, genetic information, marital status, or sexual orientation, be unlawfully denied full and equal access to the benefits of, or be unlawfully subjected to discrimination under, any program or activity that is conducted, operated, or administered by the state or by any state agency, is funded directly by the state, or receives any financial assistance from the state."]; Gov. Code § 65008 [Any discriminatory action taken "pursuant to this title by any city, county, city and county, or other local governmental agency in this state is null and void if it denies to any individual or group of individuals the enjoyment of residence, land ownership, tenancy, or any other land use in this state…"]; Government Code §§ 12955, subd. (l) [unlawful to discriminate through public or private land use practices, decisions or authorizations].

The Draft GSP does not set forth a clear methodology by which the GSAs arrived at the decision to set the minimum threshold for groundwater levels at the level of the shallowest well in a 2-mile radius around each representative monitoring well, or at 2015 levels if the shallowest well has been dewatered. The groundwater levels sustainable management criteria set by the GSAs must have the purpose of avoiding "significant and unreasonable" impacts on beneficial users caused by declining groundwater levels. The Draft GSP states that stakeholders identified "significant and unreasonable number of shallow domestic wells going dry" as an undesirable results.[30] However, the GSAs make no determination as to how many dry wells constitute a "significant and unreasonable" number, and this determination was not made at any public meetings.

Under the SGMA regulations, the GSAs should provide "the information and criteria relied upon to establish minimum thresholds," an explanation of how the proposed minimum thresholds will "avoid undesirable results," and "how minimum thresholds may affect the interests of beneficial uses and users of groundwater."[31] The only type of "information and criteria" that will show whether a proposed minimum threshold will cause dry wells is an analysis of how many wells will go dry throughout the subbasin, based on the best available data. We were able to commission a quick analysis comparing proposed minimum thresholds with domestic well depths using available data. However, such an explanation was not written in the Draft GSP, and was not taken into account in creating the proposed minimum thresholds.

Once such an analysis has been conducted, the GSAs should consider that drinking water use has been recognized as the "highest use of water" by the California legislature, and should consult with stakeholders to ensure that the minimum threshold is set is such a way as to guarantee the human right to drinking water to all individuals in the subbasin.

Additionally, the attached technical report notes that nearly one-third of all domestic wells in the subbasin were not considered in the establishment of minimum thresholds: given the limited spatial distribution of the 25 representative monitoring wells, as described above, approximately 1,100 out of approximately 3,600 domestic wells in the subbasin are located outside of the two-mile radius areas used to establish these minimum thresholds. Therefore, even if all representative monitoring wells were to set the minimum threshold at the level of the shallowest well, this still puts a third of the subbasin's domestic wells at risk of going dry. Additionally, there are no information or criteria justifying why 2015 levels were chosen as the alternative minimum threshold in cases where shallow wells have gone dry in a 2-mile radius around representative monitoring wells, or why a radius of 2 miles was chosen.[32]

The minimum thresholds further do not avoid the significant and unreasonable impact of dry wells, because they are set at the level of the bottom of the total well construction depth. A water supply well becomes unusable or subject to decreased performance and longevity as water levels fall within the screened interval, which will occur before water levels reach the bottom of the well, as highlighted in the attached technical report. Therefore, many domestic wells within the two-mile

[30] Draft Merced Subbasin GSP pg. 3-4, dated July 2019
[31] 23 CCR § 354.28.
[32] Draft Merced Subbasin GSP pg. 3-6, dated July 2019

radius of each representative monitoring well may be impacted before the minimum threshold is exceeded.

Therefore, the GSAs must do the following:

- Conduct a drinking water impacts analysis that clearly shows the impact of the proposed minimum thresholds on drinking water users
- Modify the minimum threshold to avoid the significant and unreasonable impact of dry wells. In order to protect drinking water users, the GSAs should place the minimum threshold at a level above where the shallowest domestic well is *screened*.
- Provide a full explanation of the information and criteria that was used to set the minimum threshold.

The Proposed Measurable Objectives for Groundwater Levels is Inadequate

The Draft GSP sets measurable objectives at levels that do not protect against the significant and unreasonable impact of wells going dry. In areas where the minimum threshold is set at the level of the shallowest well, the minimum threshold should be at a buffer of 25 feet above where the shallowest domestic well is *screened*.

The same problem of lack of representative monitoring well coverage also means that, even where the proposed measurable objective is 25 feet above the shallowest well, there are still many domestic wells at risk of dewatering in areas without representative monitoring wells. This does not comply with the obligations under the SGMA regulations to set measurable objectives and interim milestones that "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." Subbasin stakeholders identified a significant and unreasonable number of wells going dry as an undesirable result, and this measurable objective will not achieve that goal.[33]

The Proposed Undesirable Result for Groundwater Levels is Inadequate

The GSAs propose to wait until 25% of representative wells fall below the minimum threshold for two consecutive wet, above normal, or below normal years, before an UR is triggered. The SGMA regulations require GSAs to justify their undesirable results by including the "[p]otential effects on the beneficial uses and users of groundwater."[34] The GSAs have included no information or criteria to explain how many shallow domestic wells will go dry if this undesirable result is reached, and therefore does not set forth adequate information to justify this decision. Given the amount of wells outside of the representative monitoring well 2-mile radius zone, and the wells that are screened above the minimum threshold, this could put thousands of domestic users' drinking water access at severe risk. 25% percent of the subbain seems too high to protect drinking water users, and the GSAs should consult with stakeholders to determine whether the number of wells that will go dry is "significant and unreasonable." Lastly, adding a hydrological condition of

[33] 23 CCR § 354.30.
[34] 23 CCR § 354.26.

two consecutive wet, above normal or below normal years to the undesirable result adds an unnecessary and unfair constraint considering California's highly variable regional climate.[35]

Recommendations for Modifying the Sustainable Management Criteria for Groundwater Levels

To ensure that drinking water users are protected from impacts to groundwater level declines:

- At minimum, the Merced GSAs must do a drinking water impact analysis with a focus on identifying how many wells are at risk of dewatering from the proposed minimum threshold and the proposed undesirable result. This analysis needs to be considered by stakeholders and the GSAs as part of decision-making about sustainable management criteria, included in the GSP, and all data and methodology for this analysis should be made available to the public. This request has been made several times at various community meetings, as well as our previous comment letter.
- The Merced GSAs must consider the dewatering of *any* well that is currently in use to be a significant and unreasonable result. It should therefore place minimum thresholds at a level that protect all drinking water wells from going dry or becoming contaminated in the subbasin. If the Merced subbasin GSAs decide to define and reach their sustainability goal in a way that allows for the dewatering of drinking water wells, they must provide a robust drinking water protection program to prevent impacts to drinking water users and mitigate drinking water impacts that occur.
- The Merced GSAs must show how its measurable objectives and interim milestones for groundwater levels will avoid a significant and unreasonable number of shallow domestic wells going dry. Once the GSAs have conducted an analysis of how the proposed levels will affect shallow domestic wells, they can determine alongside stakeholders whether the number of wells is significant and unreasonable, and modify their measurable objective accordingly. Additionally, the requirement for minimum threshold violations for two similar consecutive hydrological years need to be removed and replaced with much more aspirational criteria and objectives that better protect drinking water access.

The GSAs Should Set Sustainable Management Criteria for Groundwater Storage

The GSAs did not set any sustainable management criteria for groundwater storage based on the premise that "unreasonable depletions of groundwater storage are not present and not expected to occur in the Subbasin".[36] However, the GSAs use an incorrect standard to assess the impact of this sustainability indicator on beneficial users. The GSAs state that there will not be a significant *percent* change in storage, citing to the vast depths of the aquifer in the Subbasin. However, the GSAs should instead focus on beneficial users' ability to *access* stored groundwater. Should groundwater storage be depleted to the extent that the aquifer is no longer accessible to the beneficial users in the Subbasin, then beneficial users will see significant and unreasonable impacts from not being able to access the stored groundwater. This inability to access stored groundwater may be the result of technological and/or economic barriers relating to loss of groundwater storage,

[35] Bell, Jason L., Lisa C. Sloan, and Mark A. Snyder. "Regional changes in extreme climatic events: a future climate scenario." *Journal of Climate* 17.1 (2004): 81-87.
[36] Draft Merced Subbasin GSP pg. 3-10, dated July 2019.

among other challenges.[37] Therefore the GSAs have not shown how they have considered the interests of beneficial users including domestic well owners and disadvantaged communities,[38] and the resulting impact from the proposed sustainable management criteria will likely lead to disparate impacts on protected groups pursuant to state and federal law.[39]

We strongly urge the GSAs to do the following:

- Set sustainable management criteria for groundwater storage.
- In setting sustainable management criteria for groundwater storage, the GSAs must consider the impacts that loss in access to groundwater storage will have on drinking water users, specifically around increased costs in accessing lower groundwater.

The Draft GSP Fails to Adequately Address Groundwater Quality

The Draft GSP leaves drinking water users in the subbasin vulnerable to increased drinking water contamination from the GSAs' groundwater management activities or from the lack of adequate groundwater management in the subbasin. The GSAs have not shown how they have considered the interests of beneficial users including domestic well owners and disadvantaged communities in shaping groundwater quality sustainable management criteria.[40] Instead of fully incorporating protection of all drinking water quality standards into the Draft GSP, the GSAs limit their goals for groundwater quality to Total Dissolved Solids (TDS), a constituent far less harmful to human health than many others identified in the Draft GSP including nitrates, arsenic, 123-TCP, and

[37] McGuire VL, Johnson MR, Schieffer RL, Stanton JS, Sebree SK, Verstraeten IM (2003) Water in storage and approaches to groundwater management, High Plains aquifer, 2000. US Geol Surv Circ 1243.
Konikow, Leonard F., and Eloise Kendy. "Groundwater depletion: A global problem." *Hydrogeology Journal* 13.1 (2005): 317-320.
Handa, Divya, et al. "The Efficiencies, Environmental Impacts and Economics of Energy Consumption for Groundwater-Based Irrigation in Oklahoma." *Agriculture* 9.2 (2019): 27.
Wilkinson, Robert, and W. Kost. "An analysis of the energy intensity of water in California: providing a basis for quantification of energy savings from water system improvements." *California Institute for Energy Efficiency, California* (2006).
[38] Water Code sec. 10723.2.
[39] Gov. Code § 11135 ["No person in the State of California shall, on the basis of sex, race, color, religion, ancestry, national origin, ethnic group identification, age, mental disability, physical disability, medical condition, genetic information, marital status, or sexual orientation, be unlawfully denied full and equal access to the benefits of, or be unlawfully subjected to discrimination under, any program or activity that is conducted, operated, or administered by the state or by any state agency, is funded directly by the state, or receives any financial assistance from the state."]; Gov. Code § 65008 [Any discriminatory action taken "pursuant to this title by any city, county, city and county, or other local governmental agency in this state is null and void if it denies to any individual or group of individuals the enjoyment of residence, land ownership, tenancy, or any other land use in this state…"]; Government Code §§ 12955, subd. (l) [unlawful to discriminate through public or private land use practices, decisions or authorizations].
[40] Water Code sec. 10723.2.

hexavalent chromium. The resulting impact from the proposed sustainable management criteria will likely lead to disparate impacts on protected groups, in conflict with state and federal law.[41]

The California legislature has stated that the use of water for domestic purposes is the highest use of water[42] and SGMA charged GSAs with the responsibility to protect water quality through groundwater management.[43] Despite several mentions of the importance of protecting drinking water resources in the draft GSP, the minimum threshold, measurable objective, and undesirable result are wholly inadequate.

The GSAs only proposed to establish sustainable management criteria for water quality that consider, measure, and protect against increasing salinity levels.[44] They further assert that they do not need to establish minimum thresholds for other constituents because there is no demonstrated correlation between water quality and water elevations.[45] They do not, however, present the data or analysis to support this claim. The water quality trend data presented in Appendix E only provides data through 2012 for selected water quality constituents (TDS, arsenic, nitrate, hexavalent chromium, DBCP, 1,2,3-TCP, etc.) and therefore does not present temporal trend data that would be associated with the lowered groundwater levels during the drought. In fact, there is almost no post-2012 drinking water quality data included in the Draft GSP. This represents an incomplete analysis of groundwater conditions that could have significant impacts to the sustainability and usability of the groundwater resource by drinking water users. The Draft GSP makes a key conclusion relevant to the long term management of water quality in the subbasin based on a conclusion that is unsupported by the analysis presented in the Draft GSP.

The Draft GSP also states that "[t]he primary water quality constituents of concern related to human activity include salinity, nitrate, hexavalent chromium, petroleum hydrocarbons (such as benzene and MTBE), pesticides (such as DBCP, EDB, 1,2,3 TCP), solvents (such as PCE, TCE), and emerging contaminants (such as PFOA, PFOS)."[46] Of these constituents, nitrates are the most widespread contaminant with a direct impact on public health. The Merced County Department of Public Health considers nitrate to be an adverse groundwater quality parameter for most regions in the subbasin.[47] Despite its impacts to human health and prevalence in the area, the Draft GSP

[41] Gov. Code § 11135 ["No person in the State of California shall, on the basis of sex, race, color, religion, ancestry, national origin, ethnic group identification, age, mental disability, physical disability, medical condition, genetic information, marital status, or sexual orientation, be unlawfully denied full and equal access to the benefits of, or be unlawfully subjected to discrimination under, any program or activity that is conducted, operated, or administered by the state or by any state agency, is funded directly by the state, or receives any financial assistance from the state."]; Gov. Code § 65008 [Any discriminatory action taken "pursuant to this title by any city, county, city and county, or other local governmental agency in this state is null and void if it denies to any individual or group of individuals the enjoyment of residence, land ownership, tenancy, or any other land use in this state…"]; Government Code §§ 12955, subd. (l) [unlawful to discriminate through public or private land use practices, decisions or authorizations].
[42] Water Code § 106.
[43] Water Code sec. 10721(w)(4); 23 CCR sec. 354.28(c)(4).
[44] Draft Merced Subbasin GSP pg. 3-11, dated July 2019.
[45] Draft Merced Subbasin GSP pg. 3-10, 3-11, dated July 2019.
[46] Draft Merced Subbasin GSP pg. 2-76, dated July 2019
[47] Draft Merced Subbasin GSP pg. 2-77, dated July 2019.

does not set minimum thresholds for nitrate, or for any water quality constituent other than TDS. The GSAs attempt to justify this decision, explaining that "[t]hresholds are not set for these constituents as the GSAs have no authority to limit the loading of nutrients or agrochemicals."[48] This justification is flawed as groundwater management actions will have a direct and indirect impact on the transport of nitrates, for example through groundwater recharge activities, groundwater pumping and management can impact the migration of contaminant plumes, and decreased water resources can increase concentrations of contaminants.

Groundwater quality protection is a requirement of SGMA.[49] This Draft GSP fails to incorporate performance measures and management criteria with respect to contaminants that impact human health including those contaminants with established primary drinking water standards, and in so, fails to conform with the requirements of SGMA. Furthermore, the minimum threshold for TDS itself is inadequate. A minimum threshold will only be triggered after seven representative wells show increasing levels of salinity consecutively for two years.[50] This is an unreasonably lax contamination threshold, especially given the sparseness of the monitoring network. In other words, since there are significant geographic gaps in the Merced Subbasin monitoring network (as discussed above), by the time seven of the 25 representative wells show increases in salinity for two consecutive years, it is more than likely that a high percentage of vulnerable drinking water users will be experiencing severe, long-term drinking water contamination problems before a minimum threshold is triggered. Therefore, this minimum threshold does not protect access to safe drinking water.

In order to set the minimum threshold, measurable objectives, and undesirable result, that are protective of groundwater quality for all beneficial users in the basin, the GSP must include the following:

- All representative monitoring wells must monitor constituents with established primary drinking water standards, hexavalent chromium, and PFOSs/PFOAs which has been identified as emerging contaminants in the basin.[51] We have raised this point at several committee meetings and through written correspondence.
- Set a protective minimum threshold, measurable objective, and undesirable result for all constituents with primary drinking water standards,hexavalent chromium, and PFOSs/PFOAs that may be impacted by groundwater management activities, or failure to manage groundwater in a way that does not negatively impact groundwater quality.
- A detailed explanation as to how the groundwater quality minimum threshold will result in the protection of groundwater for DACs and other drinking water users in the subbasin.

The GSP Should Ensure No Further Land Subsidence

The GSP should establish the measurable objective for land subsidence as zero change in subsidence resulting from groundwater management actions. While we are aware land subsidence happens naturally, the increase in pumping during the recent drought has led to an acceleration in

[48] Draft Merced Subbasin GSP pg. 3-12, dated July 2019.
[49] Water Code §§ 10727.2(d)(2); 10721(x)(4)
[50] Draft Merced Subbasin GSP Executive Summary, Table ES-1.
[51] Draft Merced Subbasin GSP pg. 2-76, dated July 2019.

land subsidence.[52] Because the basin is in critical overdraft, the GSAs should aim to prevent any subsidence as a result of groundwater management activities, or from failure to manage groundwater in a way that does not aggravate land subsidence.

One concern that has not been taken into consideration while setting the minimum thresholds, measurable objectives, and undesirable result, has been the impact of land subsidence on critical infrastructure, including roads, homes, piping, and wells. The only infrastructure that the Merced GSA considered to be of relevance for land subsidence in the Draft GSP is the Eastside Bypass.[53] While it is important to consider impacts of land subsidence on the Eastside Bypass, it is not the only critical infrastructure in the basin. In many parts of the world land subsidence due to groundwater extraction has caused surface deformation resulting in disturbances to water distribution networks and sewer systems.[54] We want to make sure we avoid such potential harms by making sure the minimum threshold, measurable objectives, and undesirable result, take into consideration the impacts of land subsidence on roads, homes, piping, and wells.

Projects and Management Actions are Inadequate

The projects and management actions set forth in the Draft GSP does not demonstrate a path towards achieving the sustainability goals in the plan, as significant management actions will not be fully implemented until five years before the GSAs must achieve their sustainability goals. Projects and Management Actions are also insufficient because they disproportionately benefit agricultural water users over other users, and disadvantaged communities will be benefited disproportionately less than other users. The GSAs have not shown how they have considered the interests of beneficial users including domestic well owners and disadvantaged communities.[55] The resulting impact from the proposed sustainable management criteria will likely lead to disparate impacts on protected groups pursuant to state and federal law.[56] Additionally, the Projects

[52] Faunt, Claudia C., et al. "Water availability and land subsidence in the Central Valley, California, USA." *Hydrogeology Journal* 24.3 (2016): 675-684.
[53] Draft Merced Subbasin GSP pg. 3-15, dated July 2019.
[54] Pacheco-Martínez, Jesús, et al. "Land subsidence and ground failure associated to groundwater exploitation in the Aguascalientes Valley, México." Engineering Geology 164 (2013): 172-186; Abidin, H. Z., et al. "Land subsidence in coastal city of Semarang (Indonesia): characteristics, impacts and causes." Geomatics, Natural Hazards and Risk 4.3 (2013): 226-240; Hernández-Espriú, Antonio, et al. "The DRASTIC-Sg model: an extension to the DRASTIC approach for mapping groundwater vulnerability in aquifers subject to differential land subsidence, with application to Mexico City." Hydrogeology Journal 22.6 (2014): 1469-1485; Zektser, S., Hugo A. Loáiciga, and J. T. Wolf. "Environmental impacts of groundwater overdraft: selected case studies in the southwestern United States." Environmental Geology 47.3 (2005): 396-404.
[55] Water Code sec. 10723.2.
[56] Gov. Code § 11135 ["No person in the State of California shall, on the basis of sex, race, color, religion, ancestry, national origin, ethnic group identification, age, mental disability, physical disability, medical condition, genetic information, marital status, or sexual orientation, be unlawfully denied full and equal access to the benefits of, or be unlawfully subjected to discrimination under, any program or activity that is conducted, operated, or administered by the state or by any state agency, is funded directly by the state, or receives any financial assistance from the state."]; Gov. Code § 65008 [Any discriminatory action taken "pursuant to this title by any city, county, city and county, or other local governmental agency in this state is null and void if it denies to any individual or group of individuals the

and Management Actions section does not describe clear timelines and commitments for projects that specifically benefit disadvantaged communities.

Management Actions

The GSAs selected two management actions to achieve sustainability: an initial groundwater allocation framework and groundwater demand reduction. These two actions will be pivotal to reaching basin wide sustainability by 2040. However, the Draft GSP does not set a clear timeline for implementation of an allocation framework. The Draft GSP states that the GSAs will only implement the demand reduction strategy "as needed," that demand reduction does not begin until 2025, and will not be fully implemented until 2035. We are concerned that the GSAs will not achieve their sustainability goals if water use is not limited through both an allocation framework (established within one year of GSP adoption) and a fully implemented demand reduction requirements within ten years of plan adoption.

In order to protect drinking water resources and avoid a disparate impact on protected groups, the GSAs must:

- Implement a demand reduction strategy immediately in order to avoid impacts to drinking water users, and define a concrete timeline for implementation of the strategy.
- Define an allocation framework within a year of submittal of the GSP, ensure that the allocation framework adequately protects groundwater to meet the drinking water needs of domestic well owners and disadvantaged communities in the subbasin, and implement the allocation framework proactively to avoid wells going dry.

Projects

The GSAs should prioritize more projects geared towards water efficiency in the agricultural sector and reduction in agricultural water use, since irrigation is the primary cause of overdraft in the Subbasin. Several of the projects in both the shortlist and on the projects running list focus more on increasing import of water supplies and water efficiency in urban water use. However, water efficiency in the urban sector, while important, only makes up a small portion of water use in the basin. Vastly less groundwater usage would be gained from water efficiency in urban water use than can be achieved through water conservation in irrigation.[57]

Basin-wide metering, with a focus on agricultural metering, should be prioritized under "Projects and Management Actions." With data available from basin wide-metering the GSAs will be better equipped to create an equitable allocation framework, as well as have stronger data to help understand what a sustainable yield in the basin should be and the amount of demand reduction that should be enforced each year in order to achieve sustainability. Without metering, the GSAs will not have accurate information about groundwater use.

---

enjoyment of residence, land ownership, tenancy, or any other land use in this state…"]; Government Code §§ 12955, subd. (l) [unlawful to discriminate through public or private land use practices, decisions or authorizations].

[57] Ward, Frank A., and Manuel Pulido-Velazquez. "Water conservation in irrigation can increase water use." Proceedings of the National Academy of Sciences 105.47 (2008): 18215-18220.

The Merced subbasin GSAs must avoid creating a disparate impact on low-income communities of color. As written, only one of the proposed projects protects a disadvantaged community's drinking water supply, while the majority of the projects in the Draft GSP benefit agricultural users. The lack of projects that protect disadvantaged communities' drinking water supplies, combined with the sustainable management criteria that will allow for many domestic wells to go dry and become contaminated, will cause a disparate impact to low income communities of color that live in disadvantaged communities in the subbasin. The GSAs should therefore include more projects and management actions specifically geared towards protecting drinking water resources in disadvantaged communities.

The GSAs should use their operational budget to pay for these DAC projects, instead of relying on other state drinking water programs or grants. State drinking water programs like the Safe and Affordable Drinking Water Fund are not meant to substitute GSA investments in drinking water sustainability pursuant to their responsibilities under SGMA.

The following must be incorporated into the Projects and Management Actions section of the GSP in order to avoid a disparate impact on low income communities of color in the Merced subbasin:

- Projects benefiting disadvantaged communities such as the Planada recharge basin must contain specific timelines and commitments to ensure achievement of sustainability and protection of drinking water resources for disadvantaged communities.
- Detailed information on projects must be available to the public online, as appendices to the GSP, and in a public workshop during a public comment period. In reading the shortlist projects descriptions, we had several questions about project details, which could be easily answered by providing more information on the projects. In order to better inform stakeholders on these projects and why they are being prioritized over others, more information on these projects needs to be made available, both in the plan and through more opportunities for in-person public comment.
- Establish basin wide metering to accurately assess the amount of groundwater being pumped in the basin, and where such pumping is occurring.
- Improvements in the representative monitoring well network must be prioritized, particularly for currently uncovered areas where DACs are located
- Implement projects to benefit disadvantaged communities in a reasonably timely manner, and concurrently with projects that benefit other beneficial users, so as to avoid disparate impacts on low income communities of color.
- More projects must be included that specifically benefit DACs. These projects and management should include:
    - Management areas that set more protective sustainable management criteria in areas where vulnerable communities and DACs are located, particularly where data gaps and no representative monitoring wells are located. Such areas should contain a buffer around communities to avoid localized impacts.
    - Implementing a warning system so that the GSAs are aware of when wells are going dry, or when wells are going to become contaminated from groundwater management activities, so it can take action to prevent drinking water impacts. If drinking water wells are at risk of impacts, the GSAs should help connect communities and individual homes to nearby reliable water systems. If

consolidation is not possible, the GSAs should deepen wells, install treatment facilities or POE/POU treatment in homes. In the interim, the GSA should provide emergency bottled water.
- Incentives for demand reduction strategies.
- A mitigation fund for increased cost of accessing safe and reliable drinking water for low income families. We will gladly speak with you more in detail about how such a program could be structured, financed and how residents would qualify.
- Implement more recharge basins in and around DACs, with clear implementation timelines and a clear plan for community leadership of the project
- Stormwater drainage ponds that would eliminate flooding and increase groundwater recharge in DACs
- Funds for private well testing for low income families

Plan Implementation Must Include Robust Public Participation, Allow Amendments to the GSP Upon Availability of New Information, and Implement Drinking Water Protection Programs

We have several concerns regarding plan implementation, specifically concerns over public outreach, the potential to make amendments to the GSP, metering requirements, and future mitigation strategies.

In the public outreach section for plan implementation, the GSA did not include translation services for DACs in which the predominant language is not English. The Merced basin is home to a large Latino population, many of whose first language is Spanish.[58] In order to be able to include all beneficial users in the GSP implementation process, material needs to be made available in the appropriate language. Additionally, GSA should not rely on email as the primary mode of relaying information and conducting outreach since many of the most vulnerable drinking water users may not have access to internet services.

As the draft plan is currently written, it is unclear if reconsidering elements of the GSP is only possible at the 5-year update or if reconsiderations can be proposed and made at any other time. Through its GSP, the GSA must establish processes by which it will seek and incorporate feedback from the public on an ongoing basis through direct outreach to disadvantaged communities and public workshops that are held at convenient locations and times and accessible in multiple languages. Additionally, proposed reconsiderations must be publicly noticed and circulated for public review and comment prior to final adoption.

Under the "Establishing Metering Program" section, the GSA states that on advisement from the stakeholders and coordination committees, the GSA should take a "flexible approach" to metering. Without full metering across the basin we will not have an accurate view of how much water is entering and exiting the aquifer. As stated above, basin-wide metering, with a focus on agricultural metering, should be prioritized under "Projects and Management Actions."

[58] United States Census Bureau. "QuickFacts, Merced County, California" census.gov. 16 Aug. 2019. Web https://www.census.gov/quickfacts/mercedcountycalifornia#qf-headnote-b.

Last, at the end of this chapter the Merced GSA briefly discusses mitigation for possible future domestic well dewatering.[59] As has been stated previously in this letter, the California legislature has stated that the use of water for domestic purposes is the highest use of water[60], as such, a single domestic shallow well being dewatered should be considered significant and unreasonable. The attached technical report highlights that a significant proportion of domestic wells have the potential to be partially or fully dewatered if water levels reach the proposed minimum threshold levels. Establishing mitigation for shallow domestic wells that might be dewatered by declining water levels during the GSP implementation period should be of the highest priority.

To ensure that the GSP is implemented properly, the GSA must do the following:

- The GSA should include translation services as part of their public outreach plan in order to meaningfully consult with and consider the interest of all beneficial users. Workshops and meetings must be at an accessible time and locations for all stakeholders. Additionally, notifications should also be sent out via mail to those who have limited or no access to internet services.
- Clarify in the GSP that the plan may be modified as data becomes available, and that the GSA will seek and accept feedback from the public on an ongoing basis throughout plan implementation.
- Clarify that any modification to the GSP must be in writing, noticed and provide sufficient time for public review and feedback.
- Establish a plan for drinking water protection and a plan for improving the representative well monitoring network within this GSP.

The Draft GSP Threatens to Infringe on Water Rights

In enacting SGMA, the legislature found and declared that "[f]ailure to manage groundwater to prevent long-term overdraft infringes on groundwater rights."[61] The test of SGMA further notes that "[n]othing in this part, or in any groundwater management plan adopted pursuant to this part, determines or alters surface water rights or groundwater rights under common law or any provision of law that determines or grants surface water rights."[62] As discussed in detail above, the Draft GSP allows continued overdraft above the safe yield of the basin, such that drinking water wells (especially domestic wells) will continue to go dry, infringing on the rights of overlying users of groundwater. The Draft GSP must be revised to protect the rights of residents of disadvantaged communities and/or low-income households who hold water rights to groundwater.

The Draft GSP Conflicts with the Reasonable And Beneficial Use Doctrine

The "reasonable and beneficial use" doctrine, to which SGMA expressly must comply,[63] is codified in the California Constitution. It requires that "the water resources of the State be put to

[59] Draft Merced Subbasin GSP pg. 7-11, dated July 2019.
[60] Water Code § 106.
[61] AB 1739 (2014).
[62] Water Code § 10720.5(b).
[63] Water Code § 10720.1(a).

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." (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."].)

The reasonable and beneficial use doctrine applies here given the negative impacts of the draft 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 Draft GSP authorizes waste and unreasonable use, it conflicts with the reasonable and beneficial use doctrine and the California Constitution.

The Draft GSP Conflicts with the Public Trust Doctrine

The "public trust" doctrine applies to the waters of the State, and establishes that "the state, as trustee, has a duty to preserve this trust property from harmful diversions by water rights holders" and that thus "no one has a vested right to use water in a manner harmful to the state's waters."[64]

The "public trust" doctrine has recently been applied to groundwater where there is a hydrological connection between the groundwater and a navigable surface water body.[65] In *Environmental Law Foundation*, the court held that the public trust doctrine applies to "the extraction of groundwater that adversely impacts a navigable waterway" and that the government has an affirmative duty to take the public trust into account in the planning and allocation of water resources.[66] The court also specifically held that SGMA does not supplant the requirements of the common law public trust doctrine.[67]

The Draft GSP proposes to use groundwater levels as a proxy for depletion of interconnected surface water "due to the challenges associated with directly measuring streamflow depletions and because of the significant correlation between groundwater levels and depletions.[68] The Draft GSP further notes interaction between surface water and groundwater in discussing the losing and gaining streams that will be impacted.[69] The draft GSP thus concedes that there is a hydrological connection between groundwater and surface water in the regulated area. As such, *Audubon* and its progeny require the GSAs to consider the impacts of the draft GSP on public trust resources and to attempt, so far as feasible, to avoid or minimize any harm to those interests.

[64] *United States v. State Water Resources Control Bd.* (1986) 182 Cal.App.3d 82, 106; *see also Nat'l Audubon Soc'y v. Superior Court* (1983) 33 Cal.3d 419, 426 ["before state courts and agencies approve water diversions they should consider the effect of such diversions upon interests protected by the public trust, and attempt, so far as feasible, to avoid or minimize any harm to those interests."].
[65] *Environmental Law Foundation v. State Water Resources Control Bd.* (2018) 26 Cal.App.5th 844, 844.
[66] *Id.* at 856-62.
[67] *Id.* at 862-870.
[68] Draft Merced Subbasin GSP, p. ES-6, dated July 2019.
[69] GSP, p. 2-14, 2-15.

In contrast to these requirements, the Draft GSP does not consider impacts on public trust resources, or attempt to avoid insofar as feasible harm to the public's interest in those resources.

The Draft Groundwater Sustainability Plan Will Have Disparate Negative Impacts On Protected Classes.

State law provides that no person shall, on the basis of race, national origin, ethnic group identification, and other protected classes, be unlawfully denied full and equal access to the benefits of, or be unlawfully subjected to discrimination under, any program or activity that is conducted, operated, or administered by the state.[70] Furthermore, the state's Fair Employment and Housing Act guarantees all Californians the right to hold and enjoy housing without discrimination based on race, color, or national origin.[71]

Small disadvantaged communities of color within the San Joaquin Valley are disproportionately impacted by unsustainable groundwater use, falling groundwater tables, dry drinking water wells, subsidence, and water quality degradation.[72] The negative impacts discussed in this letter, which will be allowed by the GSP, will be disproportionately felt by communities of color, and are thus discriminatory on the basis of race, color, ancestry, and national origin.

~ ~ ~ ~ ~ ~ ~ ~ ~

The GSP must protect subbasin's most vulnerable drinking water users. We welcome the opportunity to discuss our recommendations to ensure compliance with state law. We are also in communication with the Department of Water Resources about current GSP development activities in the San Joaquin Valley, and hope to successfully work with GSAs, communities and DWR to ensure that groundwater management is equitable and sufficiently protective of vital drinking water resources.

[70] Gov. Code § 11135 ["No person in the State of California shall, on the basis of sex, race, color, religion, ancestry, national origin, ethnic group identification, age, mental disability, physical disability, medical condition, genetic information, marital status, or sexual orientation, be unlawfully denied full and equal access to the benefits of, or be unlawfully subjected to discrimination under, any program or activity that is conducted, operated, or administered by the state or by any state agency, is funded directly by the state, or receives any financial assistance from the state."]; Gov. Code § 65008 [Any discriminatory action taken "pursuant to this title by any city, county, city and county, or other local governmental agency in this state is null and void if it denies to any individual or group of individuals the enjoyment of residence, land ownership, tenancy, or any other land use in this state…"]; Government Code §§ 12955, subd. (l) [unlawful to discriminate through public or private land use practices, decisions or authorizations].

[71] Gov. Code § 12900 et seq.

[72] Feinstein et al., "Drought and Equity in California" (January 2019); Balazs et al., "Social Disparities in Nitrate Contaminated Drinking Water in California's San Joaquin Valley," Environmental Health Perspectives, 19:9 (September 2011); Balazs et al., "Environmental Justice Implications of Arsenic Contamination in California's San Joaquin Valley," Environmental Health Perspectives, 11:84 (November 2012); Flegel et al., "California Unincorporated: Mapping Disadvantaged Communities in the San Joaquin Valley" (2013).

Sincerely,

/s/
Amanda Monaco
Leadership Counsel for Justice and Accountability

CC:

Amanda Peisch-Derby
Senior Engineer
Department of Water Resources

Encl:

Technical Review, July 2019 Merced Subbasin Draft Groundwater Sustainability Plan (GSP)