

## Appendix C: Methods and supporting documentation for assessment of GSPs for Human Right to Water & Drinking Water Needs

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### *Acronyms:*

- CDP – Census Designated Place
- C&E - Communication and Engagement
- CWS – Community Water System
- DAC - Disadvantaged Community (used inclusively to encompass DACs and Severely Disadvantaged Communities (SDACs))
- DWR - Department of Water Resources
- GSA - Groundwater Sustainability Agency
- GSP - Groundwater Sustainability Plan
- MO - Measurable Objective
- MT - Minimum Threshold
- OSWCR - Online System of Well Completion Reports
- PWS – Public Water System
- SDWIS - State Drinking Water Information System
- SGMA - Sustainable Groundwater Management Act
- SMC - Sustainable Management Criteria
- UR - Undesirable Result

### *Assessment scope and limitations:*

Our review of submitted Groundwater Sustainability Plans (GSPs) is intended to capture the degree to which each plan documents engagement with important drinking water and DAC considerations and stakeholders. Informed by the emergency regulations for GSPs adopted by the California Water Commission, the review structure focuses on specific GSP elements that relate to the tenants of state’s Human Right to Water law (AB 685) (safe, clean, affordable and accessible drinking water) as well as to considerations of fair treatment and meaningful involvement under California Public Resources Code § 30107.3. Notably, given limited capacity and resources, our review of even these elements is necessarily incomplete. There are many drinking water and

DAC relevant considerations that are not included in this review, for example, the full and accurate incorporation of drinking water consumptive uses in water budget calculations. Thus, these assessments are merely a starting place for considering the relationship between SGMA implementation and current and future drinking water access.

In addition to its limited scope, three other considerations are also important to note about our review: First, beyond comparing the drinking water stakeholders identified in each GSP to publicly available data on the number of DACs/SDACs, incorporated cities, Community Water Systems, Public Water Systems, public supply wells and domestic groundwater wells, this review does not assess the accuracy of information included in a GSP. We leave that job to the Department for their review. Second, the review can only consider what is documented in each GSP, thus reflects the plan's contents rather than the GSP development process or outputs/outcomes directly. For example, for stakeholder engagement it is possible more involvement activities occurred than are reflected in the plan. Third, while potentially correlated with discussion of drinking water considerations and stakeholders, this review does not assess the potential or magnitude of impacts to drinking water stakeholders under any particular GSP. Additional assessments and analyses are needed to understand the potential impacts of submitted GSPs on drinking water stakeholders and the human right to water in California.

*GSP assessment methods:*

41 unique Groundwater Sustainability Plans posted for public comment were downloaded from the SGMA portal on February 20, 2020. Four additional plans for the Madera Subbasin were downloaded from the portal on December 2, 2020. A copy of our GSP review matrix, developed based on the above objectives and piloted on draft plans, was made for each GSP. Each section of the review was then completed in accordance with the project review protocols (see GSP review protocols by element) by a research team member. Generally, each review element pertains to one or a few specific GSP sections/subsections such that a reviewer, after reading the executive summary of the plan, could jump to those sections (or the equivalent sections according to the GSP organization statement) to fill out the matrix. For select elements, keyword searches of the entire plan were used in addition to, or instead of, reviewing specific sections. In these keyword searches, standard stemming techniques ensured a comprehensive review.

Aberrations and uncertainties in implementing any of the protocols were noted in the shared review protocol document leading to updates of the protocols as needed. In some cases, especially where plans did not follow the DWR annotated GSP outline, information pertaining to a review criteria was found in sections/subsections other than those noted for review in the protocol, this information was included in the review so

long as it was fully applicable to the review question. Information included in appendices was reviewed and considered where applicable and when indicated directly in the plan text (e.g. see Appendix X for additional details about basin water quality), however, appendices were not reviewed independently for relevant content outside of such mentions. Reference documents included within GSPs such as DWR Best Management Practice documents were excluded from consideration entirely. Once each section of the review was completed, the entire matrix was reviewed by the lead researcher for completeness and accordance with the established protocols. As a final quality assurance measure, upon completing all of the reviews, each element was reviewed comparatively across GSP assessments to ensure consistency in protocol application.

*Appendix B reference data sources and methods:*

The following data layers/sources were used to compile reference data organized by exclusive Groundwater Sustainability Agency (GSA):

- DAC Places 2016 (DWR DAC mapping tool: <https://gis.water.ca.gov/app/dacs/>, includes non-DAC CDPs/cities)
- Exclusive GSAs (DWR GSA map viewer: <https://sgma.water.ca.gov/webgis/index.jsp?appid=gasmaster&rz=true>)
- Critically overdrafted groundwater basins (DWR water management planning tool: <https://gis.water.ca.gov/app/boundaries/>)
- Public Water system boundaries (Tracking California Water Boundary Tool: <https://trackingcalifornia.org/water-systems/water-systems-landing>)
- Cleaned well completion reports for public supply wells (cleaned OSWCR data filtered by well type: Pauloo, R. et al. (2019), Domestic Well Vulnerability to Drought Duration and Unsustainable Groundwater Management in California's Central Valley, v2, UC Davis, Dataset, <https://doi.org/10.25338/B8Q31D>)
- Cleaned well completion reports for domestic supply wells (cleaned OSWCR data filtered by well type: Pauloo, R. et al. (2019), Domestic Well Vulnerability to Drought Duration and Unsustainable Groundwater Management in California's Central Valley, v2, UC Davis, Dataset, <https://doi.org/10.25338/B8Q31D>)

Using these layers, spatial intersections were completed using QGIS and summarized to create the following CSV data files: DAC Places inside exclusive GSAs; Cities inside exclusive GSAs; Public Water Systems inside exclusive GSAs; Community Water Systems inside exclusive GSAs; public supply wells in exclusive GSAs and domestic wells in exclusive GSAs. These analyses were limited to only critically overdrafted basins thus for GSPs submitted for non-critically overdrafted basins some reference data is missing. For polygon joins, we excluded all those intersections where less than 10% of the area of the DAC, city or water system boundary fell into the respective GSA.

Based on the data layers used in the analysis, three things are important to note about the reference data summary tables. First, not all public water systems have voluntarily submitted their boundaries to the state meaning that there are water systems, including active ones, missing from our analysis. The number of both Community Water Systems (CWSs) and Public Water Systems (PWSs) are therefore more akin to minimum numbers. Second, rather than including unprocessed OSWCR (Online System of Well Completion reports) data from the Department of Water Resources, a cleaned version of the database from Pauloo et al. (2020) is used. This cleaned dataset was then conservatively filtered to exclude wells constructed during or before 1975 based on the possibility of such wells no longer being active. We made this decision despite knowing that some such wells are still in use today. Thus the count of domestic wells per GSA should also be considered a conservative minimum estimate. Further, the OSWCR dataset only includes reported wells, unreported wells are likely found in many if not every GSA (Pauloo 2018). Finally, because the data is organized by GSA rather than GSP, where more than one GSA is covered by a submitted GSP, the total sums of DAC, city, water systems and well counts provided at the bottom of Appendix B tables includes duplicates where there is overlap between GSPs or where DACs/cities/water systems boundaries span multiple GSAs.

*GSP review protocols by section:*

- GENERAL INFORMATION
  - GSP name, groundwater basin/subbasin name and number both come from SGMA GSP portal
  - Websites found using the SGMA GSP portal and/or google
  - Number and names of associated GSAs from SGMA GSP portal
    - All GSAs covered by the plans are included in Appendix B reference data however only those GSAs listed as formally affiliated with/contributing to the GSP were addressed in the governance sections.
- WATER QUALITY
  - *For how many of the following seven constituents has the plan set Minimum Thresholds (MTs) and for which?: Nitrates, Arsenic, Uranium, DBCP, 1,2,3-TCP, Chromium-6, Perchlorate*
    - GSP section: Sustainable Management Criteria, Minimum Thresholds (Reg. § 354.28) for degraded water quality indicator
    - Notes: MTs for Total Chromium not considered for Chromium-6
  - *Does the plan use MCLs for setting MTs for those constituents listed above? (NA if no MTs for the above 7 constituents set)*
    - GSP section: Sustainable Management Criteria, Minimum Thresholds (Reg. § 354.28) for degraded water quality indicator

- Yes: For those MTs set for the above seven constituents, MTs are set at or below state MCLs.
- Somewhat: Either state MCLs used for some but not all MTs set or MCLs used as MTs generally but exceedances allowed under certain conditions (e.g. for those wells with recent exceedances)
- No: MTs are set at or above state MCLs
- NA where MTs are not set of any of the seven key drinking water constituents (Nitrates, Arsenic, Uranium, DBCP, 1,2,3-TCP, Chromium-6, Perchlorate)
- Notes:
  - For Chromium-6 the previous state MCL or screening standards were both considered as using MCLs as was listing the MT as the revised state MCL if/when adopted.
  - In many plans singular or even multiple exceedances of MT are not grounds for asserting undesirable results or triggering management actions. Thus the recorded MTs are not necessarily reflective of the designated threshold for undesirable results in a basin or minimum-acceptable conditions as described in the plans.
  - If a plan sets different MTs based on well type, drinking water well MTs were used for this section.
- *Does the plan discuss current water quality conditions in terms of drinking water needs/standards (eg PWS MCL violations, public health concerns for domestic wells etc.)?*
  - GSP section: Basin setting, Current and Historical Groundwater Conditions (Reg. § 354.16)
  - Yes: Discussion of groundwater quality includes reference to drinking water standards/public health, detailed discussion and/or mapping of contaminant levels, discussion of detections, discussion of MCL violations etc. included in plan.
  - Somewhat: Plan includes some discussion of constituents of concern including, at minimum, reference to public health/drinking water standards, but lacks detailed mapping or discussion of contaminant levels/distribution in the GSP area.
  - No: There is no discussion of groundwater quality as it relates to drinking water or public health standards. This includes plans with thorough mapping and description of groundwater quality issues if there is no reference to how these levels relate to or impact public health or compliance with drinking water standards.
- *Does the plan explain how drinking water stakeholders were involved in*

*defining URs, MOs or MTs for degraded groundwater quality?*

- GSP section: Sustainable Management Criteria, Measurable Objectives (Reg. § 354.30), Minimum Thresholds (Reg. § 354.28) and Undesirable Results (Reg. § 354.26) for degraded water quality indicator
- Yes: There are specific details of the ways that stakeholders were involved that are explicitly inclusive of drinking water stakeholders (for example if they talk specifically about community or city residents, water system or city staff etc.) or could reasonably be assumed to be (like community meetings or public meetings). Enough detail needs to be provided that the reader can reasonably understand how these stakeholders shaped the process for two or more sustainable management criteria (URs, MTs, MOs).
- Somewhat: Plan vaguely talks about stakeholder input at a high level but without much details on the mechanisms or the plan talks about drinking-water inclusive stakeholder input only for one sustainable management criteria (e.g. URs).
- No: There is no mention or discussion of stakeholder input in setting SMC or there is only discussion of non-drinking water stakeholder involvement.
- Notes: Board of directors involvement without mention or discussion of broader public not considered as stakeholder involvement, involvement of an advisory committee is.
- *Does the plan discuss the potential impacts of MTs for water quality on drinking water users (domestic wells and public water systems/cities)?*
  - GSP section: Sustainable Management Criteria, Minimum Thresholds (Reg. § 354.28) and Undesirable Results (Reg. § 354.26) for degraded water quality indicator
  - Yes: There is specific discussion of potential impacts of the designated MTs for domestic wells and public water systems as applicable (e.g. increased costs for treatment, MCL violations, need for blending or replacement water, public health concerns)
  - Somewhat: There is either: 1) high level acknowledgement of potential impacts of MTs for drinking-water stakeholders but it lacks detail (e.g. domestic wells could be negatively impacted); 2) there is a discussion of potential impacts of the MTs but they are not specific to drinking-water stakeholders or consider only one type of applicable drinking water stakeholder omitting relevant others (don't discuss domestic wells or only discuss domestic wells); or 3) there is discussion of potential impacts of undesirable results for drinking

water stakeholders but no discussion of how MTs specifically could impact drinking water users.

- No: There is no discussion of potential impacts or discussion is limited to non-drinking water stakeholders for both MTs and URs.
- Note: Discussion of human health or public health was considered to be drinking-water specific.

- WATER ACCESS

- *Does the plan discuss current water levels/depth to groundwater conditions in terms of drinking water needs/access?*
  - GSP section: Basin setting, Current and Historical Groundwater Conditions (Reg. § 354.16)
  - Yes: Groundwater levels are discussed or graphed in relation to domestic or public supply well depth.
  - Somewhat: Plan includes discussion of well depths and discussion of groundwater levels but not in relation to one another or discussion of the two together is minimal.
  - No: Drinking water well depths are not discussed.
- *Does the plan explain how drinking water stakeholders were involved in defining URs, MOs or MTs for chronic lowering of groundwater levels?*
  - GSP sections: Sustainable Management Criteria, Measurable Objectives (Reg. § 354.30), Minimum Thresholds (Reg. § 354.28) and Undesirable Results (Reg. § 354.26) for declining groundwater levels indicator
  - Yes: There are specific details of the ways that stakeholders were involved that are explicitly inclusive of drinking water stakeholders (for example if they talk specifically about community or city residents, water system or city staff etc.) or could reasonably be assumed to be (like community meetings or public meetings). Enough detail needs to be provided that the reader can reasonably understand how these stakeholders shaped the process for two or more sustainable management criteria (URs, MTs, MOs).
  - Somewhat: Plan vaguely talks about stakeholder input at a high level but without much detail on the mechanisms or the plan talks about drinking-water inclusive stakeholder input only for one sustainable management criteria.
  - No: There is no mention of stakeholder input or there is only mention of involvement of non-drinking water stakeholder involvement.
  - Notes: Board of directors involvement without mention or discussion of broader public not considered as stakeholder

- involvement, involvement of an advisory committee is.
- *Does the plan discuss the potential impacts of MTs on drinking water users (domestic wells and public water systems/cities)?*
    - GSP sections: Sustainable Management Criteria, Minimum Thresholds (Reg. § 354.28) and Undesirable Results (Reg. § 354.26) for declining groundwater levels indicator
    - Yes: There are specific and detailed discussion of potential impacts of the designated MTs explicitly about domestic wells and/or public water systems (eg well damage, dry wells, costs for replacement wells or water source)
    - Somewhat: There is either: 1) high level acknowledgement of potential impacts of MTs for drinking-water stakeholders (e.g. wells could go dry); 2) there is a discussion of potential impacts of the MTs but they are not specific to drinking-water stakeholders or consider only one type of applicable drinking water stakeholder omitting others (don't discuss domestic wells or only discuss domestic wells); or 3) there is detailed discussion of potential impacts for drinking water stakeholders but only of undesirable results generally rather than the specific MTs set under the plan.
    - No: There is no discussion of potential impacts or discussion is limited to non-drinking water stakeholders
  - *Does the plan include a technical analysis/discussion of potential for domestic wells to go dry given management decisions? (beyond simply noting the possibility which would be included in the above question)*
    - GSP section: Sustainable Management Criteria, Minimum Thresholds (Reg. § 354.28) for declining groundwater levels indicator
    - Yes: Plan includes an analysis that considers well depth (domestic wells or all wells) in relation to the MTs set that results in descriptive statistics about dry/impacted wells under MT conditions.
    - Somewhat: Plan includes thorough analysis or discussion of the possibility of dry wells but stops short of providing analysis results or an analysis is included but is not comprehensive for the plan area.
    - No: No analysis or technical discussion of potential well failures included
  - *Is there an overview of the drinking water impacts experienced during the 2012-2016 drought?*
    - Keywords/phrases searched: Dry wells, emergency, bottled water, drought, funding, recent drought. Relevant content also found while



reviewing the current and historical basin conditions and other sections.

- Yes: Details about the recent drought's impacts on drinking water impacts are included in the plan (eg reference to bottled water and emergency interim solutions programs, description of water shortages, information about emergency drought restrictions)
- Somewhat: Drinking water impacts of the recent drought are referenced in passing but not elaborated on (eg small water systems were impacted by recent drought)
- No: There is no discussion of drought impacts directly related to drinking water. This includes, for example, discussion of declining groundwater levels that aren't related to well impacts.
- DRINKING WATER AS BENEFICIAL USE
  - *Are DACS /SDACs adequately identified as a beneficial user?*
    - GSP sections: Description of the Plan Area (Reg. § 354.8), Notice and Communication (Reg. § 354.10) and Communication and Engagement Plan (where applicable)
    - Yes: DACs/SDACs in the plan area are at minimum named and mapped (or locations described) and closely or perfectly mirror the reference data provided in Appendix B (minor deviations okay especially where references to 2017 data included)
    - Somewhat: Many but not all of the DACs/SDACs in the area are named and/or mapped per reference data provided in Appendix B. Or DACs are mapped at census block or tract level only and there are DACP places in the plan area.
    - No: None or few DACs/SDACs in the area are named or mapped.
    - NA: There are no DACs/SDACs in the GSP area according to our reference data (Appendix 2, 2016 DWR data used, intersections of less than ten percent of DAC area excluded for reference data).
    - Note:
      - For the purposes of this review, we did not distinguish between DACs and SDACs.
      - Where no reference data available for comparison, used online DAC mapping tool from DWR too look at plan area.
  - *Are Public Water Systems (PWSs, including cities) adequately identified as a beneficial user?*
    - GSP sections: Description of the Plan Area (Reg. § 354.8), Notice and Communication (Reg. § 354.10) and Communication and Engagement Plan (where applicable)
    - Yes: Plan includes at least two of the following: Number of public

supply wells, list of public water systems and/or community water systems, locations of public supply wells and/or water systems, or descriptive information about public supply well depths.

- Somewhat: Plan includes at least one of the following: Number of public supply wells, number or list of public water systems, locations of public supply wells and/or water systems, or descriptive information about well depths. Alternatively, two or more types of information are provided but the number of public supply wells or public water systems is significantly below what is identified in the reference data.
- No: Plan either does not mention public water systems or they are mentioned without providing the above details.
- NA: There are no public water systems in the GSP area according to our reference data (Appendix B).
- Notes:
  - Our reference data employs the water boundary tool data which is not complete thus systems are expected to be identified in the plans that are not shown in our reference data in Appendix B.
  - Where no reference data available assumed their data was accurate and answer question based on level of information/detail provided.
- *Are domestic wells adequately identified as a beneficial user?*
  - GSP sections: Description of the Plan Area (Reg. § 354.8), Notice and Communication (Reg. § 354.10) and Communication and Engagement Plan (where applicable)
  - Yes: Plan includes at least two of the following: the total number of domestic wells, information about their locations (e.g. density map or discussion of their geographic distribution in the plan area) or descriptive information about domestic well depth.
  - Somewhat: Plan includes just one of the following: the total number of domestic wells, information about their locations (e.g. density map or discussion of their geographic distribution in the plan area) or descriptive information about domestic well depth. Alternatively, two or more types of information provided but the number of domestic wells identified is significantly below what is identified in the reference data.
  - No: Domestic wells are either not mentioned or their presence is acknowledged without providing details about number, locations or depth.

- Notes:
  - Because OSWCR data only includes reported wells and because this data set was cleaned and then filtered to only those wells constructed after 1975 the reference data estimate for domestic wells should be considered a minimum baseline.
  - Where no reference data available assumed their data was accurate and answer question based on level of information/detail provided.
- *Does GSP account for increased municipal/domestic water demand due to future population growth/development?*
  - GSP section: Basin setting, Water Budget Information (Reg. § 354.18)
  - Yes: Projected water budget accounts for growth in both incorporated and unincorporated communities with clear information about how/why the given projections were made (eg Urban Water Management Plan projections). Ideally dispersed rural residential growth also incorporated but can still receive a yes designation without it. Also can receive a yes designation is rather than including growth a citation from a local land use planning agency is provided justifying the projected lack of growth.
  - Somewhat: Growth rates for cities and unincorporated communities are incorporated into the projected budget but no discussion/rationale for the included projections is provided or growth projections are included for only some but not all the cities and unincorporated communities in the area.
  - No: Residential growth is not incorporated into the projected water budget and no local land use planning agency source is provided to justify this omission.
  - NA where no community water systems present
- *Does the sustainability goal mention the importance or protection of groundwater for domestic/municipal uses?*
  - GSP section: Sustainable Management Criteria, Sustainability Goal (Reg. § 354.24)
  - Yes: Goal explicitly mentions the importance of, or protecting, groundwater for domestic/municipal uses, drinking water or public health.
  - Somewhat: Goal broadly discussed protection of beneficial uses/users, “community” or “residents” broadly
  - No: Goal neither mentions drinking water, public health nor the

- protection of beneficial uses/users, residents, or community.
- *Does the GSP provide a description of how drinking water users input was considered when defining the sustainability goal?*
  - GSP section: Sustainable Management Criteria, Sustainability Goal (Reg. § 354.24)
  - Yes: Plan includes discussion of the process whereby the sustainability goal was determined that is explicitly inclusive of drinking water stakeholders (for example if they talk specifically about community or city residents, water system or city staff etc.) or could reasonably be assumed to be (like community meetings or public meetings). Must include enough details that the reader can understand how stakeholder involvement directly contributed to shaping the goal.
  - Somewhat: Plan references stakeholder involvement or input on the sustainability goal but no details are provided.
  - No: Plan does not discuss how the sustainability goal was decided upon or only non-drinking water stakeholders are discussed as contributing to development.
- *Does GSP discuss and/or affirm the human right to water (AB 685)*
  - Keyword search of whole document: human right to water, right to water, AB 685
  - Yes: Plan affirms the human right to safe clean and affordable water and/or the right to water is discussed in the plan in relation to either its' development and/or impact/implementation
  - Somewhat: Human right to water if mentioned but not affirmed or related to the GSP directly.
  - No: No mention outside of any public comments or reference documents appended.
- **PARTICIPATION AND ENGAGEMENT**
  - The following considerations are recorded for reference. Information was gathered from the plan directly as well as the DWR SGMA portal (public hearing notices and resolutions etc.) and when needed, GSA websites.
    - Draft GSP comment period start date
    - Draft GSP comment period end date
    - Draft GSP comment period length (days)
      - Approximate. Used their count of days when provided in plan. If plan did not provide a count, the number of days was calculated inclusively (counting last day).
    - Date that final GSP was adopted
    - Is there a Stakeholder Communication and Engagement Plan

included in the GSP? (Y/N)

- This question is answered as yes where there is a stand alone communication and engagement document included in the plan or referenced in plan and publicly available beyond information required in communications section of the plan.
  - Where the included C&E plan is for a whole sub-basin and not the GSP in question that is noted.
- *Were significant and meaningful attempts at outreach and community involvement in GSP development made? (public workshops, community meetings, targeted outreach, various/creative communication methods, material development etc. Don't count full draft plan public comment period required by law but can consider prior comment periods on parts of preliminary drafts if applicable)*
  - GSP sections: Plan Area and Basin Setting, Notice and Communication (Reg. § 354.10) and Communication and Engagement Plan (where applicable)
  - Yes: GSA(s) document several different methods for outreach and engagement that demonstrate breadth and depth of reach and tailoring to their specific setting. Discussion of efforts are detailed.
  - Somewhat: GSA(s) document a few outreach and engagement methods beyond the required public meetings/hearings and noticing. Discussions of efforts may also be vague or high level or demonstrate limited effort (stakeholder survey with few responses etc.). Somewhat is also used where significant efforts were made at subbasin level but little to no documentation of stakeholder engagement specific to the GSP at hand is provided.
  - No: There is no or very limited discussion of stakeholder outreach or engagement. Involvement mechanisms relied upon are primarily the minimum requirements for transparency including public board meetings, required public hearings under SGMA, noticing of meetings and hearings, and the required draft plan comment period.
  - Notes:
    - Stakeholder/advisory committees are not considered in this section because they are included in the governance sections.
    - While the required draft plan comment period is not considered, release of pre-drafts for iterative cycles of comment was counted as an outreach/engagement method.
    - Future tense references to planned stakeholder outreach

and engagement (especially in C&E plan) not counted where no clear indication is made that these plans were realized.

- *Is there evidence of the GSA(s) incorporating public comments into GSP?*
  - GSP sections: Plan Area and Basin Setting, Notice and Communication (Reg. § 354.10) and Communication and Engagement Plan (where applicable). Often found in appendices.
  - Keywords searched: comments, comment period, draft, public comment
  - Yes: There is documented evidence of GSA(s) receiving, responding to and incorporating comments such as an appendix of comments and responses or multiple examples in the plan of changes made in response to comments.
  - Somewhat: There is reference to receiving and incorporating comments on the plan but there is no more than one or two clear examples of this occurring or only high-level discussion of comments being incorporated without specifics.
  - No: There is no evidence of, or reference to, incorporating comments on the draft plan.
  - Note: Plans that did not receive any public comments were assigned no assuming no specific examples were provided in the plan of incorporating comments from meetings or workshops into the plan.
- *Translation/interpretation efforts made? (notices, meetings, materials, GSP)*
  - GSP sections: Plan Area and Basin Setting, Notice and Communication (Reg. § 354.10) and Communication and Engagement Plan (where applicable)
  - Keywords searched: Translation, interpretation, Spanish, language, English, bilingual
  - Yes: There is more than one example effort at translation/interpretation documented (e.g. translation of materials, meeting interpretation provided, non-english language mailers or media)
  - Somewhat: There is one example of translation/interpretation documented (eg meetings or materials but not both), translation efforts are said to have taken place but are not well described or translation efforts were made for subbasin wide coordinated outreach and engagement but no reference to any efforts at the GSP level are found (where different).
  - No: No reference to language access efforts documented.

- Notes: Like all stakeholder outreach and engagement efforts, plans to provide translation in communications and engagement plans or other planning documents were not counted when exclusively provided in future tense with no indication they occurred.
  - *Is there a plan for inclusive public engagement during GSP implementation?*
    - GSP section: Plan Area and Basin Setting, Notice and Communication (Reg. § 354.10), Plan Implementation and Communication and Engagement Plan (where applicable)
    - Yes: There is a discussion of plans for stakeholder outreach and engagement for plan implementation that includes specific mechanisms for involvement (workshops, advisory committee, communications) that go beyond public noticing and meetings.
    - Somewhat: There are high-level references to the continuation of stakeholder outreach and engagement for GSP implementation but lacks specific details about what this will look like.
    - No: There is no discussion of stakeholder engagement during implementation
- **DRINKING WATER AFFORDABILITY**
  - *Is drinking water affordability discussed in the plan and/or are accommodations for affordability made (e.g. exemptions/reductions/rebates for fees or penalties for low-income users)?*
    - GSP sections: Introduction, Agency Information (Reg. § 354.6), Implementation, Estimated Cost of Implementing the GSP and the GSA's Approach to Meet Costs
    - Keyword searches: affordability, low-income
    - Yes: Plan includes discussion of affordability for drinking water users specifically. This may include how the plan might impact affordability, incorporating affordability into assessment of funding options or plans to employ low-income rates or reduced fees/penalties.
    - Somewhat: Affordability is mentioned but not specifically related to the GSP or addressed/accommodated for. Discussion is vague or high-level.
    - No: No mention or discussion.
- **PROJECTS AND MANAGEMENT ACTIONS**
  - *Does the plan include projects/actions that specifically address drinking water needs? (generally reducing pumping or increasing supply not counted whereas targeted recharge to improve water quality while*

*increasing supply or targeted recharge to protect domestic or otherwise vulnerable wells from dewatering would count)*

- GSP section: Projects and Management Actions to Achieve Sustainability Goal (Reg. § 354.44)
- Yes: One or more project or management actions have specific drinking water benefits as discussed in plan. For example water quality benefits centered around Title 22 standards, targeted recharge near public water systems or domestic wells that is discussed as benefiting those drinking water users, water conservation programs etc. General recharge projects or efforts that support sustainability generally without having unique drinking water related benefits are not counted even when led by a drinking-water provider.
- No: None of the included projects or management actions have specific drinking water benefits.
- Notes: Potential projects that are discussed as possibilities are excluded from consideration. Where a GSP projects/management action are prioritized or ranked, only top priority/tier/planned projects are considered in this assessment.
- *Does the plan include projects/actions that directly benefit a DAC/SDAC? (same stipulations as above)*
  - GSP section: Projects and Management Actions to Achieve Sustainability Goal (Reg. § 354.44)
  - Yes: One or more project or management actions have specific DAC benefits. For the purposes of this review DAC benefits means that the project is discussed or proclaimed as having direct benefits to one or more DAC/SDAC such as targeted recharge, well rehabilitation, water conservation programs, infrastructure improvements etc. General recharge projects or efforts that support sustainability generally without having unique DAC related benefits are not counted.
  - No: None of the included projects or management actions have specific DAC benefits.
  - NA: No DACs/SDACs in plan area according to our 2016 DWR reference data (see Appendix B).
  - Notes: Potential projects that are not committed to are excluded from consideration. Where a GSP projects/management action are prioritized or ranked, only top priority/tier/planned projects are considered in this assessment.

- MITIGATION



- *Does the GSA propose any actions/projects to mitigate for impacts to drinking water wells caused by the actions (or lack of actions) of the GSA? Impacts may include dry wells, contamination plume etc. Programs may include mitigation funds, drinking water wells technical assistance, protection zones near DACs and SDACs and other options.*
  - GSP sections: Projects and Management Actions to Achieve Sustainability Goal (Reg. § 354.44) also Sustainable Management Criteria, Minimum Thresholds (Reg. § 354.28) and Basin setting, Management Areas (as Applicable) (Reg. § 354.20).
  - Yes: The plan includes discussion of one or more planned efforts to protect drinking water users outside of setting minimum thresholds.
  - Somewhat: Plan includes discussion of potential mitigation efforts but they are not fully committed to.
  - No: No such projects or management actions are planned or considered in the GSP.
- *Does the plan go beyond aiming to prevent further degradation and strive to remediate groundwater conditions and advance the human right to water?*
  - GSP sections: Sustainable Management Criteria, Measurable Objectives (Reg. § 354.30) for degraded groundwater quality and declining groundwater levels indicators
  - Yes: Both the MO for declining groundwater levels and the MO for degraded water quality are fully or mostly set above recent lows.
  - Somewhat: Either the MO for declining groundwater levels or the MO for degraded water quality are set above recent lows but not both.
  - No: Neither the MO for declining groundwater levels nor the MO for degraded water quality are set above recent lows
- GSP GOVERNANCE (this section is only applicable where there are multiple GSPs in a basin or subbasin, deleted for all other plans)
  - Descriptives
    - *Description of plan-wide governance/decision-making system for GSP development if applicable*
    - *Description of plan-wide advisory or stakeholder committee for GSP development if applicable*
      - Notes: Technical advisory committees were not counted as stakeholder or advisory committees. Committees by other names (eg groundwater planning commission, rural communities committee) were counted where their purpose was discussed as supporting involvement of stakeholders or

beneficial uses/users inclusive of drinking water stakeholders.

- *Drinking water stakeholders represented on stakeholder/advisory committee? (NA for those without committee)*
  - GSP sections: Introduction, Agency Information (Reg. § 354.6) and Notice and Communication (Reg. § 354.10), Communications and Engagement Plan (where applicable). When committee is discussed but composition is not detailed in the plan, also consulted GSA website
  - Keywords searched: stakeholder committee, advisory committee
  - Yes: The stakeholder/advisory committee explicitly includes one or more drinking water stakeholder including domestic well owners, city residents, city staff/officials, public water system representatives
  - No: The stakeholder/advisory committee does not include one or more drinking water stakeholders explicitly (“landowners” and “growers” were not assumed to be domestic well owners unless specified as such)
  - NA: No GSP wide stakeholder or advisory committee mentioned in plan.
  - Unclear: Plan nor website provides enough information to know the composition of the mentioned committee.
  - Notes: Where drinking water stakeholders were non-voting members they were not counted as represented.
- *DAC stakeholders represented on stakeholder/advisory committee? (NA for those without committee)*
  - GSP sections: Introduction, Agency Information (Reg. § 354.6) and Notice and Communication (Reg. § 354.10), Communications and Engagement Plan (where applicable). When committee is discussed but composition is not detailed in the plan, also consulted GSA website
  - Keywords searched: stakeholder committee, advisory committee
  - Yes: The stakeholder/advisory committee explicitly includes one or more DAC stakeholder including residents, public water system representatives from a system serving a DAC/SDAC, city officials/staff where that city is a DAC, or community organizations or environmental justice organizations noted as being related to DACs.
  - No: The stakeholder/advisory committee does not include one or more DAC stakeholders explicitly.

- NA: No GSP wide stakeholder or advisory committee mentioned in plan.
  - Unclear: Plan nor website provides enough information to know the composition of the committee
  - Notes: Where DAC stakeholders were non-voting members they were not counted as represented.
- GSA GOVERNANCE (this section is repeated for each GSA listed as affiliated plan per the SGMA portal submitted GSP database)
  - Descriptives
    - *Description of GSA governing board*
    - *Description of GSA advisory/stakeholder committee (NA if none)*
      - Notes: Technical advisory committees were not counted as stakeholder or advisory committees. Committees by other names (e.g. groundwater planning commission, rural communities committee) were counted where their purpose was discussed as supporting involvement of stakeholders or beneficial uses/users inclusive of drinking water stakeholders.
  - *Is this GSA a drinking-water provider, or if the GSA is an MOU/JPA or special act district, is one or more drinking-water representatives on the board?*
    - GSP section: Introduction, Agency Information (Reg. § 354.6)
    - Yes: Either the GSA itself is a community/public water system or city, one or more member agencies represented on the GSA board is a community/public water system or city or there is one or more appointed seats on the governing board for domestic well or drinking water system representation.
    - No: None of the above criteria apply
  - *Does this GSA directly represent a DAC? Or if the GSA is an MOU/JPA or special act district, is one or more DAC representatives on the board?*
    - GSP section: Introduction, Agency Information (Reg. § 354.6)
    - Yes: Either the GSA itself represents a DAC/SDAC (city or community water system serving a DAC/SDAC), one or more member agencies on the GSA board represents a DAC/SDAC or there is an appointed seat for DAC/SDAC representation on the board. See notes below on what constitutes an agency that represents a DAC/SDAC.
    - No: None of the above criteria apply
    - Notes: Agencies representing a DAC/SDAC were considered to be agencies that primarily represent one or more DACs/SDACs

meaning the DAC/SDAC make up more than half of the agency's service area/connections. Larger regional districts like Counties, irrigation districts, Investor Owned Utilities, storm water districts etc are not counted.

- *Are there specific drinking water stakeholders represented on stakeholder/advisory committee? (NA for those without committee)*
  - GSP sections: Introduction, Agency Information (Reg. § 354.6) and Notice and Communication (Reg. § 354.10), Communications and Engagement Plan (where applicable). When committee is discussed but composition is not detailed in the plan, also consulted GSA website
  - Keywords searched: stakeholder committee, advisory committee
  - Yes: The stakeholder/advisory committee explicitly includes one or more drinking water stakeholder including domestic well owners, city residents, city staff/officials, public water system representatives.
  - No: The stakeholder/advisory committee does not include one or more drinking water stakeholders explicitly ("landowners" and "growers" were not assumed to be domestic well owners unless specified as such)
  - NA: No stakeholder or advisory committee mentioned in plan.
  - Unclear: Plan nor website provides enough information to know the composition of the committee
  - Notes: Where drinking water stakeholders were non-voting members they were not counted as represented.
- *Are there specific DAC stakeholders represented on stakeholder/advisory committee? (NA for those without committee)*
  - GSP sections: Introduction, Agency Information (Reg. § 354.6) and Notice and Communication (Reg. § 354.10), Communications and Engagement Plan (where applicable). When a committee is discussed but the composition is not detailed in the plan, we also consulted the GSA website.
  - Keywords searched: stakeholder committee, advisory committee
  - Yes: The stakeholder/advisory committee explicitly includes one or more DAC stakeholder including residents, public water system representatives from a system serving a DAC/SDAC, city officials/staff where that city is a DAC, or community organizations or environmental justice organizations noted as being related to DACs.
  - No: The stakeholder/advisory committee does not include one or

more DAC stakeholders explicitly.

- NA: No such committee mentioned in plan.
- Unclear: Plan nor website provides enough information to know the composition of the committee.
- Notes: Where DAC stakeholders were non-voting members they were not counted as represented.

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*References:*

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