Staff Report for October 17, 2019: ESJ GWA Board Meeting
Comment Review Ad Hoc Committee Findings & Recommendations

Submitted by Woodard & Curran

Board Meeting Agenda

1. **Approval of September Meeting Minutes** (No accompanying staff report)
2. **Adopt Resolution Reinstating WID to the ESJGWA** (No accompanying staff report)
3. **Comment Review – Ad Hoc Committee Findings & Recommendations** (Staff Report)
4. **Implementation - Ad Hoc Committee Findings & Input** (Staff Report)
5. **GSA GSP Adoption Process** (No accompanying staff report)
6. **DWR Update** (No accompanying staff report)
7. **November Agenda Items** (No accompanying staff report)

Agenda Item#3: Comment Review Ad Hoc Committee Findings & Recommendations

ISSUE SUMMARY

The Sustainable Groundwater Management Act (SGMA) places tremendous importance on community engagement throughout the creation of a groundwater sustainability plan (GSP). SGMA requires a groundwater sustainability agency (GSA) encourage the active involvement of diverse social, cultural, and economic elements of the population within the groundwater basin prior to and during the development and implementation of the GSP. (Wat. Code, §10727.8(a).) SGMA requires each GSP include a summary of the notification and communication the GSA provided to agencies and interested parties. (23 CCR § 354.10.) The summary must include comments on the GSP and a summary of responses provided by the GSA. (23 CCR §354.10(c).) In reviewing the adequacy of the GSP, the Department of Water Resources (DWR) will consider whether an agency has adequately responded to the comments which raise credible technical or policy issues within a plan during its review of a GSP. (23 CCR §355.4(b)(10).)

In the DWR Guidance Document for the Sustainable Management of Groundwater Sustainability Plan (GSP) Annotated Outline published in December 2016, DWR interpreted the requirements above to recommend the GSP contain an appendix of comments received and responses thereto. (DWR Guidance Document for the Sustainable Management of Groundwater Sustainability Plan Annotated Outline, at 10.)

In order to comply with the above requirements and DWR recommendations, the GWA will need to review the GSP comments and determine how to appropriately respond, and if a response is necessary. The GWA released the draft GSP on July 10, 2019 for a public comment period of 45 days ending on August 25, 2019. The GWA instructed the public to provide comments electronically to info@esjgroundwater.org and requested comments be submitted on a template provided on the website.

At the September 11, 2019 GWA Board Meeting, the Board provided direction to confirm the following processes and protocols.

- Provide the GWA members access to comments through a shared FTP location to ensure each individual GSA can individually access and review GSP comments.

- Appoint a temporary, Comment Review Ad-Hoc Committee that is open to staff members from each member without causing a quorum issue of the advisory committee or GWA Board. The comment review ad hoc committee would convene for 2-3 Workshops prior to the October Board meeting to review the comments, summarize the comments, and provide recommendations regarding responses to comments and potential changes to the GSP.

- Adopt a protocol that requires each GWA member agency forward any GSP comments it receives to the consultant within 3 business days of receipt. The consultant will post comments to the shared database to allow all GWA members access to the comments.

The Comment Review Ad-Hoc Committee was formed by Chair Winn in September 2019 and convened for three Workshops on the following dates: September 19, 2019; September 24, 2019; and October 4, 2019. Discussion focused on substantive comments received on the Draft GSP, including on the following topics:

- Monitoring Network (23)
- Projects and Management Actions (20)
- Basin Setting (17)
- GDEs (18)
- Interconnected Surface Water (18)
- Groundwater Quality (16)
- Flood Risk (16)
- Water Budget (13)
- Plan Implementation (7)
- Sustainable Management Criteria (7)

- Groundwater Storage (6)
- Groundwater Levels (6)
- Model Uncertainties (6)
- Well Permitting (5)
- Climate Change (5)
- Seawater Intrusion (4)
- Outreach (2)
- DMS (2)
- Subsidence (1)
- Interbasin Coordination (1)

The Comment Review Ad-Hoc Committee discussed comments received and provided recommendations for addressing comments. The Ad-Hoc Committee has also identified areas requiring additional discussion at the GWA Board level.

Substantial proposed changes to the Plan include:

Projects and Management Actions

Comment Areas Resulting in Changes to the Draft GSP:

- The Plan does not satisfy GSP Rule 355.4(b)(5) because the Plan does not contain or present substantial evidence to conclude that the projects and management actions identified to achieve sustainable yield are effective or feasible or not likely to prevent undesirable results or to ensure that the basin is operated within its sustainable yield.
- The GSP project and management actions focus on supply augmentation, with only three projects intended to conserve groundwater through metering and systems optimization. Though the GSP reserves the flexibility to implement demand-side management. In the future, there are no specifics as to how the ESJGA would implement demand management. Considering the ESJ Subbasins' current unsustainable rate of groundwater consumption and considering the cost and timing challenges associated with supply augmentation projects, a balanced portfolio approach to achieve groundwater sustainability should include demand-management strategies.

Proposed Response to Comment:

- The GWA acknowledges that many of the projects are in preliminary planning stages. The GWA has a twenty-year planning timeframe to bring the projects online, and will continue to evaluate project benefits, impacts, and costs. The Eastern San Joaquin Water Resources Model (ESJWRM) was used to calculate basin-scale planning targets based on projected future water demands. There is uncertainty in these estimates, which will be refined in coming years through model updates and verification studies. Further, this GSP is an adaptive plan, driven by annual monitoring reports. The data in these reports, as well as individual GSA-level water budgets, will provide a means of project evaluation, and will assess potential for undesirable results. The three tiers of projects, which total to a combined 187,967 AFY, have been developed to respond to the uncertainty in planning targets and provide greater flexibility in how sustainability will be achieved. The Subbasin may need to recharge and/or offset more or less water than the estimated 78,000 AFY to reach sustainability and can pull from the highest benefit and most feasible projects to do so.
- GSP projects have been proposed by individual GSAs and will be implemented at the GSA level. The GWA's role in project implementation will be to oversee essential coordination and evaluation activities, but the GWA does not have authority to direct project design, timeline, or initiation.
- The Ad-Hoc Committee proposes adding a subsection to GSP Section 6.1 (Projects and Management Actions) that outlines a process for management actions if the identified projects do not progress, or if monitoring activities demonstrate that the projects are not effective in achieving stated recharge and/or offset targets. Example text: "Although the GWA does not provide direct authority to require GSAs to implement projects, the GWA will be working on GSA-level water budgets and will be requesting annual or biannual progress reports to evaluate progress. If the projects do not progress, or if monitoring efforts demonstrate that the projects are not effective in achieving stated recharge and/or offset targets, the GWA will convene a working group to evaluate the implementation of groundwater pumping curtailments."
- The GWA acknowledges that there are many factors that could affect the availability of surface water, and that has to be evaluated by GSAs in the implementation of projects. The process of GSAs providing biannual reports will allow for the GWA to update the Plan and adjust the implementation course as needed based on conditions.

- Language was added to the GSP referencing existing conservation management actions (including Urban Water Management Plans and Agriculture Water Management Plans). Additionally, language was added to Section 6.2.2 (Project Implementation) to emphasize the pathway toward sustainability: "Projects will be administered by the GSA project proponents. GSAs may elect to implement projects individually or jointly with one or more GSAs or with the GWA. As the GWA develops GSA-level water budgets, the GSAs will have a better understanding of how project will be implemented at the GSA-level and can better evaluate progress toward completion."

Groundwater-Dependent Ecosystems (GDEs)

Comment Areas Resulting in Changes to the Draft GSP:

- The GSP method only considers the presence of vegetation communities and wetlands. GSP Regulations stipulate that "species" dependent on groundwater should also be considered (i.e. the presence of fish and wildlife species that rely on riparian wetlands and/or flow in rivers influenced by gaining reaches.)
- GDEs may depend on shallow groundwater regardless of the presence of alternative water sources.
- The removal of potential GDEs with a depth to groundwater greater than 30 relies on a single-point-in-time baseline hydrology. Specifically, this 2015 baseline falls several years into a historic drought.

Proposed Response to Comment:

- Section 2.2.7 (Groundwater-Dependent Ecosystems) was revised to classify NCCAG areas that access co-occurring surface water as data gap areas requiring further refinement. Section 2.2.7.1 (Methodology for GDE Identification) was updated to better articulate the methodology used and the describe data gaps within the NCCAG dataset. A footnote was added indicating referencing the use of 2015 groundwater levels in the GDE analysis: "This analysis uses 2015 groundwater levels (winter, spring, summer, and fall), which may be deeper than representative levels due to drought conditions, a factor which will be considered in future GDEs analyses." Figure 2-68 was updated to show removed NCCAG areas as data gaps.
- Language was added to Section 4.7 (Data Gaps) to identify NCCAG areas not identified as GDEs to be data gap areas requiring further refinement (NCCAGs that either access co-occurring surface water or were identified as located in an area with groundwater levels deeper than 30 feet bgs). The purpose of this is to identify potential existing GDEs that may have been incorrectly classified through this screening process.
- Language was added to Section 4.7 (Data Gaps) to indicate that the GWA would evaluate using the GDE Pulse Tool and other tools to monitor GDEs.
- The GSP as written includes the list of freshwater species provided by The Nature Conservancy as Appendix 1-F: Freshwater Species in the Eastern San Joaquin Subbasin as beneficial users of groundwater. Language was added to Section 2.2.7 (Groundwater-Dependent Ecosystems) and Section 4.7 (Data Gaps) to indicate that fish and wildlife species associated with GDEs are a data gap area.

Interconnected Surface Water

Comment Areas Resulting in Changes to the Draft GSP:

- The use of the existing representative groundwater level monitoring wells is inadequate to assess whether or not surface waters are depleted by groundwater extraction wells near surface waterways.
- Evidence that a "significant correlation exists between groundwater elevations" not robustly supported in the GSP.
- Only one of the representative monitoring wells appears to be located near those areas Specific monitoring should be described to further evaluate, monitor, manage and protect areas with interconnected surface waters and GDEs.
- Groundwater level monitoring alone may be insufficient to establish a linkage between groundwater extraction and potential impacts to interconnected surface water.
- The uncertainty regarding the groundwater interconnection of streams in the Subbasin should be identified as a data gap.
- The historical model calibration period covers the water years 1996-2015. Section 354.16 of the California Code of Regulations stipulates that each Plan shall provide a description of current and historical groundwater conditions in the basin.
- Even if the stream is only connected 25% of the time, it is still connected, and that short period of connectivity may be during critical times for select species or provide a cooling or biogeochemical effect during a critical period.
- Section 351 of the Regulations defines "interconnected surface water" as surface water that is hydraulically connected at any point by a continuous saturated zone to the underlying aquifer and the overlying surface water is not completely

depleted.

- The definition of undesirable results is overly narrow and recognizes only a limited subset of the environmental beneficial users of interconnected surface waters.
- Any surface water depletions attributable to groundwater pumping are likely to be significant and unreasonable. CDFW does not believe groundwater levels above the proposed minimum thresholds and below the proposed measurable objectives (in the margin of operational flexibility) will allow the basin to achieve sustainability.

Proposed Response to Comment:

- The GWA recognizes that depletion of interconnected surface water is a data gap area and supports the use of groundwater levels as a proxy, as this represents the best information currently available. The GWA has identified a need for future study and refinement of interconnected surface water and will continue coordination efforts to better inform basin conditions.
- Language has been added to Section 4.7 (Data Gaps) identifying interconnected surface water as a data gap area for future study and refinement. The section has also been updated to clarify and better articulate the GWA's focus on installing additional monitoring wells near streams, which can be evaluated for use as representative monitoring wells in the future.
- The Draft GSP identifies areas in the Subbasin that the GWA believes to be interconnected based on the best available information but recognizes that these are may require additional analysis and will be updated with future model verification and validation efforts. Figures 3-64 and 3-65 were reviewed for consistency based on comments received. Language in Section 2.2.6 (Interconnected Surface Water Systems) was updated to describe gaining and losing streams as "gaining most of the time" and "losing most of the time" and Figure 2-65 was updated accordingly. Figure 2-66 was updated to display stream nodes gaining most of the time as interconnected and the language was updated to "interconnected more than 75 percent of the time" and "interconnected less than 25 percent of the time."
- Language was added to Section 2.2.6 (Interconnected Surface Water Systems) clarifying that the ESJWRM historical calibration model results represents the best available information for both current and historical conditions related to interconnectivity between surface water and the groundwater system: "This analysis was based on modeling results from the historical calibration of the ESJWRM for approximately 900 stream nodes in the Eastern San Joaquin Subbasin, which represents that best available information for current and historical conditions."
- The GSP as written includes the list of freshwater species provided by The Nature Conservancy as Appendix 1-F: Freshwater Species in the Eastern San Joaquin Subbasin as beneficial users of groundwater.
- Language was added to Section 4.7 (Data Gaps) to indicate that the GWA would evaluate using the GDE Pulse Tool and other tools to monitor GDEs.
- The GWA considers current minimum thresholds and measurable objectives to be protective of beneficial uses and users in the Subbasin and to be protective of existing in-stream flow requirements for fish and wildlife.

Seawater Intrusion

Key Comment Area:

- The minimum threshold and measurable objective for seawater intrusion are too high to avoid undesirable effects and would not be protective of environmental and agricultural beneficial users.

Proposed Response to Comment:

- Salinity concerns from connate water and other sources are addressed through the Degraded Water Quality Sustainability Indicator.

Groundwater Quality

Comment Areas Resulting in Changes to the Draft GSP:

- The case for setting MTs only for salinity based on the fact that other constituents are managed through existing regulatory programs is not persuasively supported.
- The GSP wrongly abdicates responsibility for specific constituents by implying there is no nexus between specific groundwater contaminants and groundwater pumping (arsenic, CAFOs, point-source contaminants).
- The minimum threshold and measurable objective for salinity places agriculture at risk from yield losses.
- Anticipated shift to lower tolerance crops and the accumulation of salts in the soils.
- The minimum threshold and measurable objective for salinity are too high and not protective of crops. This level of

salinity places agriculture at risk from yield losses. Anticipated shift to lower tolerance crops and the accumulation of salts in the soils.

Proposed Response to Comments:

- A new subsection has been added to Section 3.2.3 (Section 3.2.3.4: Monitoring for Additional Constituents), which states that additional monitoring is needed to identify water quality conditions and trends related to additional constituents including arsenic and nitrate. This new subsection references Chapter 4 (Monitoring Networks) and describes the informational monitoring efforts that will take place as part of the Broad monitoring network for water quality, specifically, the monitoring for arsenic and for cations/anions - which includes nitrate. The subsection also references the existing regulations through existing water resources monitoring and management programs (described in Section 1.2.2). Language has been added to indicate that if existing regulations are violated, or if monitoring efforts indicate concerning trends, the GWA will evaluate developing minimum thresholds and measurable objectives for additional constituents, as well as to take steps to coordinate with regulatory agencies. Additionally, language has been added stating that the GWA may require GSAs that are drinking water suppliers to report to the GWA if constituents of concern exceed their MCL. While these reports do not reflect the water quality of private well owners, it would provide a useful basin-wide screen to better inform basin groundwater quality.
- Language has been added to Section 3.2.3.2: Minimum Thresholds referencing Section 3.2.3.4 and indicating the monitoring efforts for additional constituents, including nitrate and arsenic.
- Language was modified in Section 3.2.3.1.1 (Description of Undesirable Results (Degraded Water Quality) to indicate new monitoring efforts in the Subbasin that will occur as part of the Broad monitoring network for Water Quality) and to highlight coordination efforts with existing regulatory agencies to determine if existing regulatory requirements are met. Language stating no nexus was removed and replaced with language stating that new monitoring efforts and coordination with existing regulatory agencies will allow the GSAs to determine if groundwater pumping activities are contributing to undesirable effects related to degraded water quality.
- The minimum thresholds are intended to define levels that are significant and unreasonable and are not the desired state of the subbasin. The GWA considers minimum thresholds and measurable objectives for groundwater quality to be protective of agricultural uses. Language was added in Section 3.2.3.2 (Degraded Water Quality Minimum Thresholds) to include information on salinity tolerances of Subbasin crops.

Outreach

Comment Areas Resulting in Changes to the Draft GSP:

- The GSP and Communication Plan do not specify how the DACs were specifically engaged. The failure to identify small community water systems calls into question how and whether adequate outreach to DACs was conducted.

Proposed Response to Comments:

- An appendix has been added to the GSP which documents the 432 community water systems that received hard copy outreach materials throughout the GSP development process. The appendix is referenced in Section 1.3.4.4 (Stakeholder Database); this section was also updated to list the dates that outreach materials were mailed to community water systems. An analysis was performed to map community water systems that are DAC or SDAC areas, and the results of this analysis are presented in the added appendix.
- Section 1.3.1 (Beneficial Uses and Users in the Subbasin) was updated to include community water systems and reference the added appendix. Additionally, the bullet reference public water systems was changed to reference Figure 1-13 rather than Section 1.1.4.3.
- Language was added to Section 1.3.4.4 (Stakeholder Database) indicating that many GSAs conducted local outreach within their jurisdiction, including direct mailings to parcels served as part of a small water system.

QUESTION FOR CONSIDERATION:

1. How should the GWA respond to public comments to best comply with SGMA and DWR recommendations?

COMMENT REVIEW AD-HOC COMMITTEE RECOMMENDATION

- Include a comment response matrix as an appendix to the GSP that summarizes comments received and GWA responses. GSP responses to comments developed by the Comment Review Ad-Hoc Committee are identified above for additional discussion. See Draft Comment Response Matrix Excel spreadsheet for

additional details.

BOARD RECOMMENDATION
Board to consider on October 17, 2019

AGENDA ITEM #4: Implementation – Ad Hoc Committee Findings & Input

ISSUE SUMMARY
The process for implementation and cost sharing of implementation items needed to be developed for roll-out after the GSP is adopted.

QUESTION FOR CONSIDERATION: What is the GWA implementing, how much does it cost annually, and how will the costs be shared?

INTRODUCTION:

The Implementation Ad Hoc Committee meet regularly over the last two months to consider implementation plan cost refinements and allocation methodology. Several mechanisms for cost share were evaluated including total acreage, developed acreage, population, ability to pay, total water use, and groundwater pumping.

RECOMMENDATION
The Ad Hoc Committee recommendation is that costs are distributed through a mix of cost allocation principles. It is proposed that monitoring and reporting will largely be paid for by the County Zone 2 funds (with the exception of Eastside GSA which is not covered by the Zone 2 area) with GSAs completing their own monitoring and reporting through in-kind services. Basin-wide water quality review, administration of the GWA, outreach and website updates, and assumed biennial basin-wide grant applications costs are proposed to be evenly distributed among the 16 GSAs. Model refinement and 5-Year Plan Update costs are proposed to be shared through a formula of 50% of the total distributed based on population of GSAs and 50% of the total distributed based on future groundwater pumping. See Draft Cost Allocation Excel spreadsheet for additional details.

BOARD RECOMMENDATION
Board to consider on October 17, 2019