

EKI TECHNICAL PRESENTATION #34

COSUMNES SUBBASIN GSP DEVELOPMENT

4 NOVEMBER 2021

COSUMNES SUBBASIN WORKING GROUP MEETING

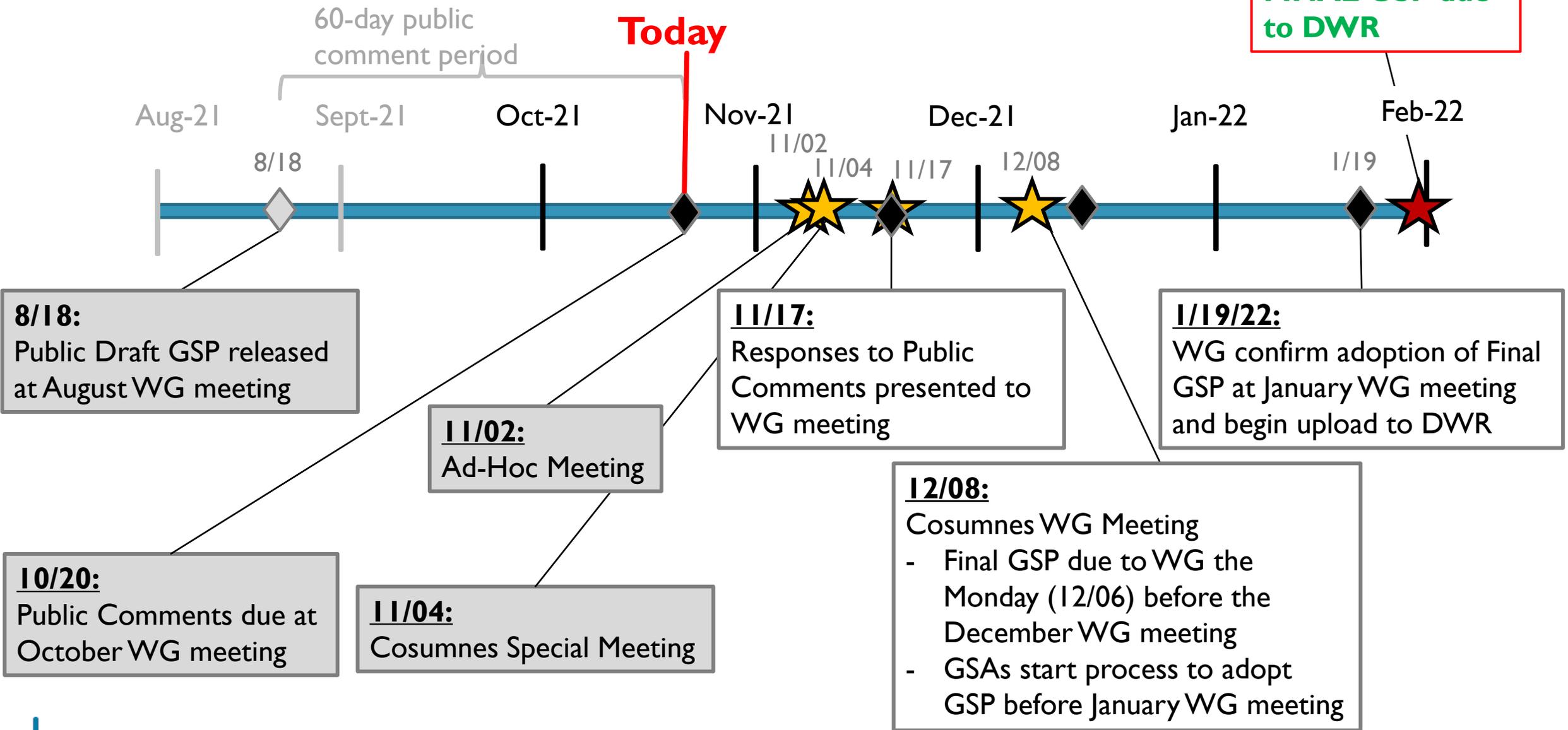
AGENDA ITEM #2

GSP PREPARATION AND SUBMISSION

- GSP Update 3-month look ahead
- Stakeholder/Agency Comments and Responses

GSP 2021- 3 MONTH LOOK AHEAD

1/31/22:
FINAL GSP due to DWR



PUBLIC COMMENTS

General responses posted on Cosumnes website

35 correspondences

Source	Count
Survey Monkey Form	11
Mailed	13
Emailed	11
Sum	35

145 total comments

General Topic	Count	Lead
Technical	81	EKI
PMA's	30	Working Group Ad-Hoc
Implementation	11	Working Group Ad-Hoc
Outreach/Engagement	23	Working Group Ad-Hoc
Sum	145	

<https://cosumnes.waterforum.org/draft-gsp-comment-period>

RESPONSE TO PUBLIC COMMENTS (1 OF 12)

Projects and Management Actions

Comment #2: **The plan you have been working on for years has no real projects planned for the foreseeable that would recharge our aquafer [sic].** (Ralph Hofmeier)

Response: Add clarifying text and updated information from PMA Committee to Section 18 “Projects and Management Actions” and Section 19 “Plan Implementation.”

Explanation: *The first 5 years of GSP implementation will be focused on working with farmers to develop the following program, conducting feasibility studies, exploring options for small scale, local projects, and establishing the CGA.*

RESPONSE TO PUBLIC COMMENTS (2 OF 12)

Projects and Management Actions (cont.)

- Section 18 “Projects and Management Actions” – incorporate clarifications
- Section 19 “Plan Implementation”
 - 19.1.5 Project and Management Action Implementation – Phase I
 - Following program development and implementation
 - Flood-MAR feasibility studies
 - Additional PMA studies (e.g. conservation, distributed projects, etc.)
 - Regional Groundwater Recharge Coordination
 - Groundwater Banking Policy
 - Harvest Water
 - SAFCA Program
 - 19.1.8 Periodic GSP Evaluations – 5-year update
 - Progress on plan implementation
 - Review and reconsideration of GSP elements
 - Integration of new data and information (relevant to water rights, coordination with other sub basins, negotiations with state/federal agencies, etc.)
 - 19.2 Implementation costs
 - Update Table PI-1

RESPONSE TO PUBLIC COMMENTS (3 OF 12)

Implementation

Comment #5: **Info on the past, current and proposed budget.** (Tish Espinosa)

Response: Update Table PI-1.

Explanation: *The budget for GSP development is included in the Final Cosumnes Cost Share Agreement: <https://cosumnes.waterforum.org/wp-content/uploads/2018/08/4-Cosumnes-Cost-Share-Agmt-52450-Revised-Draft-2018-08-10.pdf> . The estimated costs to implement the GSP are found in Table PI-1. These costs have been updated as a result of on-going efforts by the Working Group.*

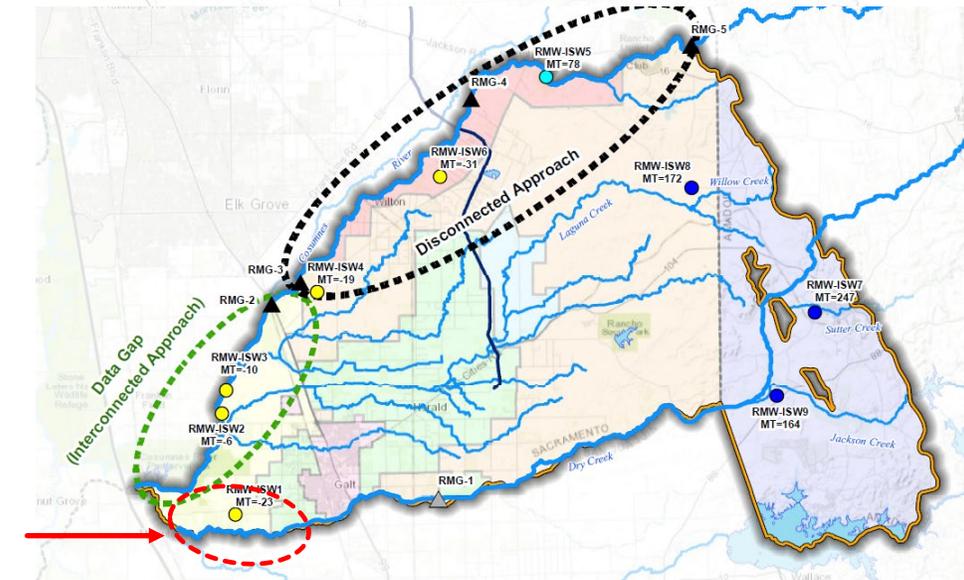
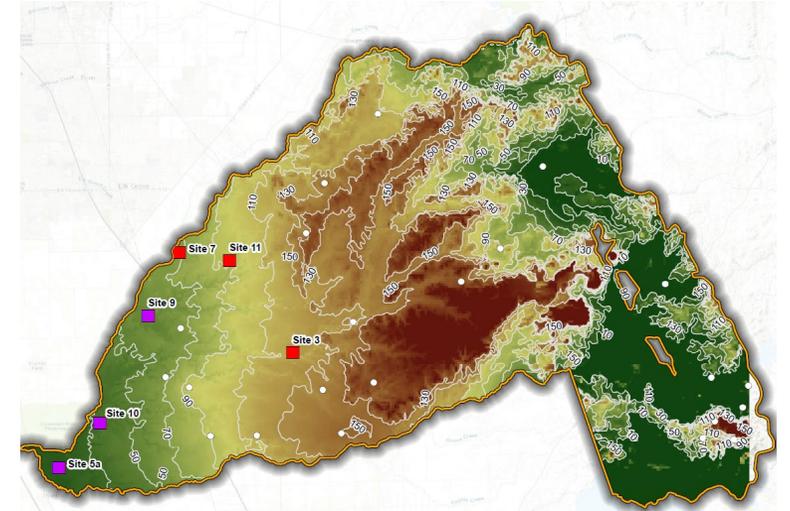
RESPONSE TO PUBLIC COMMENTS (4 OF 12)

Technical - Interconnected Surface Water

Comment #19: **Correlate explanation in the GSP text to a map of stream reaches in the subbasin, with reaches clearly labeled as interconnected or disconnected. On the stream reach map, include reaches with data gaps as potential ISWs. (TNC, Audubon, LGC, Union of Concerned Scientists, Action Fund)**

Response: Add stream traces to Figure GWC-04 (Calculated Depth to Groundwater 2018), update Prop 68 monitoring well construction plans, and identify data gaps/assumed interconnected reaches.

Explanation: *The depths to groundwater in the Principal Aquifer are 50 feet or more beneath almost all surface water features, except for the most westerly portion of the Basin underlying the Cosumnes River and Dry Creek.*



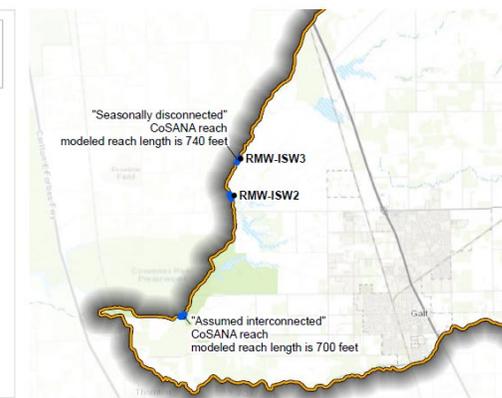
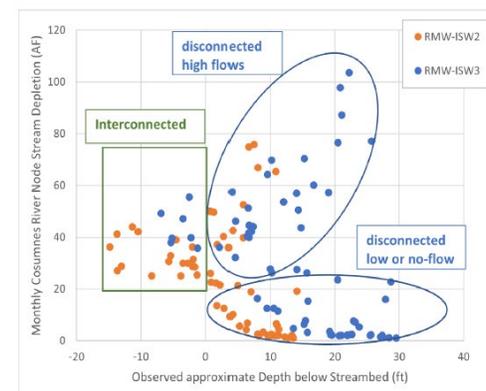
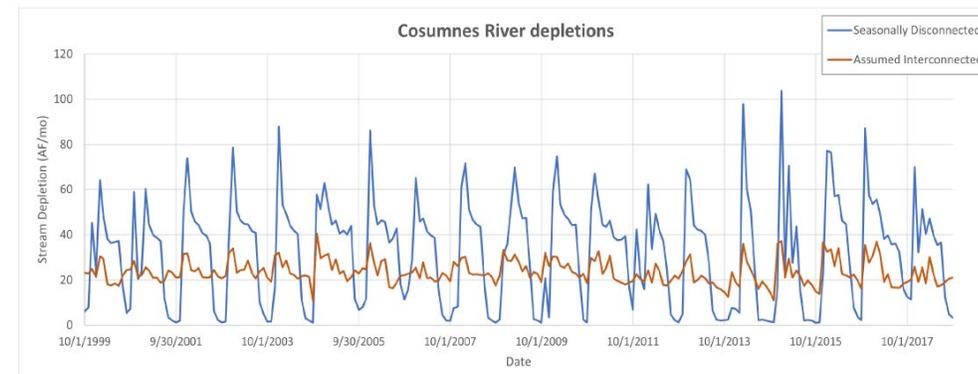
RESPONSE TO PUBLIC COMMENTS (5 OF 12)

Technical - Interconnected Surface Water

Comment #44: Table presenting the long-term average monthly depletions, in both the interconnected and disconnected reaches, would improve clarity. Quantifying depletions by month and reach will improve understanding of depletions. (CDFW)

Response: Add table of monthly model-calculated depletions for the two reaches presented in Figure GWC-16.

Explanation: *The information presented in Figure GWC-16 is a combination of measured and model-calculated results for two lengths of river (each ~700 feet in length). These river sections are adjacent to shallow monitoring wells whose water level data were used to classify them as “seasonally disconnected” and “assumed interconnected.” This is explained in Figure GWC-16, but not repeated in the text. The text will be modified accordingly.*

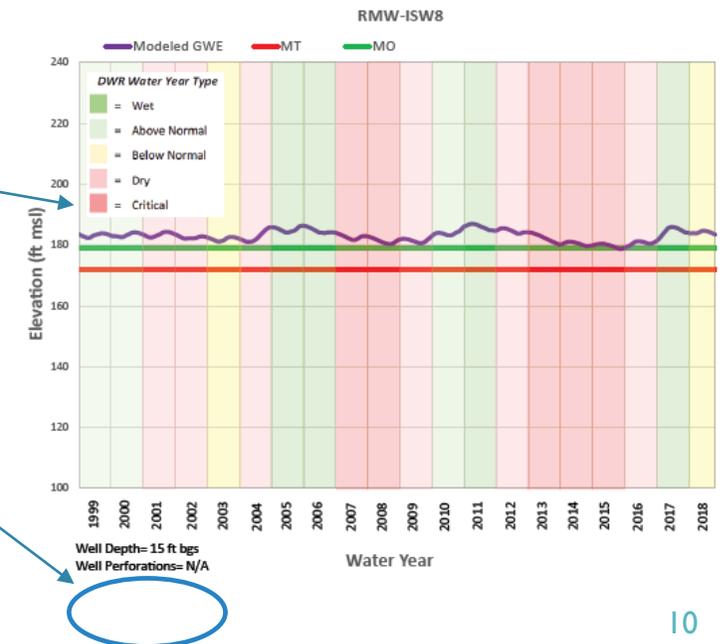


RESPONSE TO PUBLIC COMMENTS (6 OF 12)

Technical - Interconnected Surface Water

Comment #51: **Without a ground surface elevation reference, it is difficult to determine the depth to groundwater below the ground surface for evaluation of potential impacts to groundwater dependent ecosystems. (CDFW)**

Response: Post numeric value of ground surface elevation on each hydrograph.



RESPONSE TO PUBLIC COMMENTS (7 OF 12)

Technical - Groundwater Dependent Ecosystems

Comment #33: Add the following info to this section: recent monitoring has identified shallow perched aquifer areas that supply water to GDEs in the corridor between Deer Creek and the Cosumnes. The vegetation in this area is groundwater dependent (though not regulated by SGMA) riparian forest, contributing resource to multi-benefit projects that contribute to both water security and ecological uplift. (ECOS)

Response: Recommend multi-benefit projects including Flood Plain Projects.

Explanation: Note in GSP that the vegetation in the areas that reportedly rely on perched groundwater can represent an opportunity where multi-benefit projects can contribute to both water supply reliability and ecological support. Coordinate with Agency and NGO partners working with willing landowners near the Cosumnes River to develop projects that offer recharge and agricultural and/or habitat preservation benefits.

RESPONSE TO PUBLIC COMMENTS (8 OF 12)

Technical - Groundwater Dependent Ecosystems

Comment #50: GSP states that other indicators of GDE health will be monitored in the subbasin (e.g., Normalized Difference Vegetation Index (NDVI)), it is unclear how those metrics will be used by the Working Group to determine if a management response is needed, because no ‘trigger threshold’ is defined. (CDFW)

Response: Add to implementation process to determine triggers based on monitoring data as part of 5-year update.

Explanation: *Monitoring plan already includes groundwater levels, climate, satellite imagery, and timing and magnitude of Cosumnes River flow (e.g. TNC GDE Pulse). Evaluation of these data coupled with periodic site visits to verify conditions of GDEs will be considered to develop triggers and the required response.*

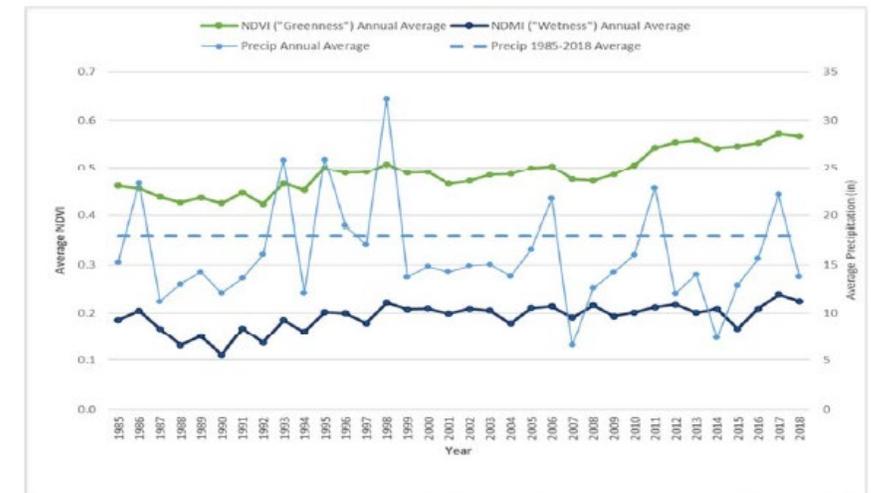


Figure 14. GDE Pulse derived NDVI and NDMI trends for NCCAG GDEs in the Cosumnes Subbasin and average annual precipitation.

RESPONSE TO PUBLIC COMMENTS (9 OF 12)

Technical - Groundwater Dependent Ecosystems

Comment #48: The GSP does not include information related to the species potential groundwater dependence or spatial extent. The GSP fails to adequately discuss the potential impacts that would occur to groundwater dependent ecosystems, interconnected surface waters, and the species present within the subbasin as it relates to identified sustainable management criteria. (CDFW)

Response: Include at the beginning of Appendix K information on the dataset provided by the TNC and a link to the TNC database.

Explanation: *The TNC provided a list of freshwater species potentially located within the Basin to evaluate species reliant on surface water. This list was acknowledged in the GSP and included as one of the appendices. As stated in the GSP, additional work supported by wildlife surveys is needed to both confirm the presence of the species in the Basin provided by the TNC and assess reliance on groundwater and/or interconnected surface water. Regardless, throughout the Basin water levels are typically too deep to sustain groundwater dependent ecosystems.*

RESPONSE TO PUBLIC COMMENTS (10 OF 12)

Technical – Land Use

Comment #22: Discuss and map the presence of managed wetlands in the subbasin. Quantify and present all water use sector demands in the historical, current, and projected water budgets with individual line items for each water use sector, including managed wetlands. (TNC, Audubon, LGC, Union of Concerned Scientists, Action Fund)

Response: Add clarifying text below to GSP and that delineation of Managed Wetlands be considered as part of the planned updates and verification of land uses by the GSAs.

Explanation: *The DWR land use categories include "Native Water," which includes "managed wetlands," but it's not possible to distinguish between lakes, ponds, wetlands, etc. The Native Water land use is aggregated in the water budget calculations as "riparian," and is considered a component of "Native Vegetation".*

RESPONSE TO PUBLIC COMMENTS (11 OF 12)

Technical - Land Use

Comment #92: **I do not believe we have native lands in this area anymore** (Tish Espinosa).

Response: Add clarifying text as needed to GSP sections and tables.

Explanation: *DWR's land use categories emphasize agricultural land, and the "Native Vegetation" category refers to undeveloped lands.*

RESPONSE TO PUBLIC COMMENTS (12 OF 12)

Technical - Water Quality

Comment #32: Manganese is a constituent of concern (COC) and identify management strategies. Additional manganese data for both public and domestic wells are available (ECOS).

Response: Investigate potentially missing Manganese data and integrate as appropriate into the 5-year update.

Explanation: Manganese (Mn) is regulated by a 0.05 mg/L secondary maximum contaminant level (MCL). The MCL was established for aesthetic concerns (discoloration). Though Mn can be considered a neurotoxin, this is typically from inhalation at very high levels, not from ingestion (EPA, 2004; WHO, 2004). SWRCB only recommends removal of Mn at levels in groundwater ten times the notification level. Hence, it is not necessary to consider Mn a COC. In 2019, EKI accessed available water quality data from numerous sources (e.g., California Data Exchange Center, United States Geologic Survey (USGS) National Water Inventory System, California Department of Water Resources (DWR) National Water Quality Monitoring Council (NWQMC) Water Quality Portal (WQP), State Water Resource Control Board via NWQMC WQP, Environmental Protection Agency National Aquatic Resources Survey via NWQMC WQP, Department of Health Services via Groundwater Ambient Monitoring and Assessment (GAMA) Groundwater Information System (GIS), DWR via GAMA GIS, USGS via GAMA GIS, GeoTracker, NWQMC WQP, and Safe Drinking Water Information System). As noted by the reviewer, contemporary access efforts to the GAMA GIS provides data that was not available in 2019. EKI is investigating the potentially missing data and assessing its implications for the GSP. Most likely, any additional data will need to be verified and included in the DMS to consider for the 5-Year update as appropriate.

THE END