Surface Water Advisory Group
Compiled Comments from SWAG Meeting #2

Updated: October 13, 2020

Context: SWAG members were invited to submit written comments on the content discussed at Meeting #2 on September 25 (Refer to the Meetings Page for materials). This document compiles the submitted comments. (Note: Commenters' contact information was intentionally removed)

Contents

Ted Rauh, Sacramento Central Groundwater Authority

Interim Report to SCGA Working Group Regarding

Surface Water Advisory Group

Ted Rauh – October 2, 2020

Introduction:

The SCGA Working Group (Group) requested that I be one of the Group's representatives on the Surface Water Advisory Group (SWAG). The SWAG was established by the Cosumnes Subbasin Working Group (made up of representatives of the Cosumnes Subbasin's Groundwater Sustainability Agencies) to advise it on surface and groundwater interaction, and Groundwater Dependent Ecosystem (GDE) issues in support of the development of a subbasin Groundwater Sustainability Plan (GSP). To date the SWAG has met twice. Technical materials presented to the SWAG as well as comments from SWAG members are available for review on the Cosumnes Subbasin Working Group website. This report does not attempt to draw any initial technical conclusions regarding these documents but instead attempts to offer a direction which could lead to improved inter-subbasin coordination and cost effective solutions to both the analysis of surface water interactions and GDE impacts in both subbasins.

Background:

The Cosumnes Subbasin Working Group has invested a portion of its GSP and Prop 68 resources in the establishment of the SWAG and the technical investigation of the south side of the Cosumnes River as it pertains to the requirements of SGMA. The SWAG is providing extensive technical and policy input from a consortium of regional, statewide, and national NGAs and university experts that have experience and expertise on this subject, as well as, local affected residents and other interested parties. The Cosumnes Working Group, and by extension SCGA, are fortunate that this regional effort has drawn the expertise from such a broad base of technical and local experience. In addition, SCGA's technical consultant and Interim Executive Director have participated in the SWAG meetings and this participation has led to shared technical analysis that has improved the process.

Recommendations for Coordinated Analysis and Action:

1. SCGA does not need to duplicate a SWAG like process for the lower Cosumnes River. The SWAG has representation from a full range of interested parties including agriculture residential property owners, some of who appear to reside in the Central Subbasin area. SCGA originally envisioned the potential need to create a group like SWAG to address similar issues along the Cosumnes River but it appears the SWAG group is providing necessary and applicable input for SCGA's purposes as well. In addition, some of the technical recommendations coming from the

SWAG have general applicability to areas of concern regarding groundwater and surface water interaction and GDE identification and protection throughout the Central subbasin area. These recommendations should be considered by SCGA staff and consultants as they assess and study the entire Central Subbasin area.

For the Cosumnes river area, SCGA should approach the Cosumnes Working Group and suggest more inter-basin coordination including the expansion of the geographic reach of the SWAG to include agricultural and home owner interests adjacent to the Cosumnes River residing in the Central Subbasin area. SCGA can provide the community outreach necessary to advise these stakeholders about the SWAG, its work to date, and encourage them to attend future SWAG meetings. Additional Group members may also wish to participate in future SWAG meetings.

2. SCGA's technical staff and consultants should continue to participate in the SWAG meetings and SCGA's technical team should present their findings regarding the north side of the Cosumnes River. Examples of this sharing to date include Laura Foglia's approach of using satellite imaging to identify when the Cosumnes River ceases to flow. Going forward it is important that both technical teams supporting the GSAs and the GSAs themselves reach an informed and consistent view regarding the conditions of the Cosumnes River and the ecosystems it supports. This outcome will be best served by the sharing and coordination of technical data and analysis, and the conclusions reached from this work.

3. If possible, within the grant award, money SCGA set aside in the Prop 68 grant for a sponsored SWAG like group and meeting structure should be reprogramed to additional technical analysis and monitoring well construction to augment the work already done along the Cosumnes River. Likewise, careful consideration should be given to the biological assessment and other analysis already done on the Cosumnes River. SCGA may not need to duplicate some or all of these efforts and may be able to rely on them, thus freeing up resources for the additional monitoring effort required. While current technical analysis presented to the SWAG provided indications of where surface water interaction with the aquifer may be taking place, further coordinated work on both sides of the river is needed to identify specific edges of interaction and appropriate ground water elevations at these points so MOs and MTs can effectively be established for both subbasins.

4. Both GSPs need to portray and manage their respective subbasins consistent with the geology and hydrogeology including the suspected perched groundwater found along portions of the lower Cosumnes River. As we know, significant findings of deficiency in SCGA's Alternative Plan gave clear direction regarding where our GSP needs to focus in this area. To this end, both GSPs need to contain an accurate and jointly agreed upon depiction of water elevation(s) and movement across the Cosumnes River channel. While current monitoring systems may meet SGMA guidelines for other areas of concern it is not clear that they are sufficient to monitor impacts to both the Cosumnes river and GDEs the system supports. The joint need exists to identify where the river's ground water connection exists and ceases – both in the southern and

northern reaches. Understanding these factors will assist in developing consistent, meaningful MTs and MOs along with an adequate monitoring system to protect the river and GDEs from any further degradation while the Cosumnes Subbasin adjusts and returns to 2015 levels. To achieve these joint goals, it may be necessary to establish MOs and MTs for the Cosumnes River area that are different from those established for other areas of each subbasin.

5. Joint discussions between the two GSA working groups need to begin now to discuss the expansion of the SWAG, the sharing of technical information and resources, and the goals and objectives for the Cosumnes River and the associated GDEs.

6. Joint discussions between the two GSA working groups need to begin now to discuss operational projects to be included in each GSP that address the issues of maintaining Cosumnes surface water connectivity and GDE preservation, manage the flow of groundwater southward below the Cosumnes River channel, and contribute toward restoring the Cosumnes Subbasin to 2015 storage levels. The implementation of projects that benefit the Cosumnes River and its attendant environmental resources, as well as the other stated objectives, work to the advantage of both subbasins and positively impact the attainment of their GSPs. How and when these benefits are paid for is a complex issue and may be beyond the immediate reach of one or both GSA groups. In addition, land resources for some of the project options may need to be acquired as one initial step. It is important that the need for these projects be identified as early as practical so that all interests, including funding sources, can be marshaled to ensure needed projects can be implemented.

Reclaimed water from the Regional Sanitation District can play a significant role in projects addressing the maintenance and health of the lower Cosumnes GDEs as well as the surface water connectivity of the river. Reclaimed water projects can also improve groundwater levels in both subbasins. Actions are needed now to secure important land resources that can be used to spread a significant amount of the reclaimed water.

Likewise, the Sacramento Area Flood Control Authority is proposing recharge projects in the central area of the boarders of both subbasins as well as in the Cosumnes subbasin. Recharge projects in these areas could help reduce the rate of the flow of groundwater out of the Central Subbasin, help improve conditions of surface water connectivity and GDE protection along the Cosumnes River, and contribute to restoring the Cosumnes Subbasin to 2015 groundwater levels.

These projects and others require commitments of land and resources. The achievement of these commitments requires, in part, the commitment of the GSAs to these projects' GSP relevance. The conceptual agreement of both GSA groups to the concept of these projects now, thereby signaling the intention to include them in the final GSPs, can play an important role in their advance.

Bridget Gibbons, CA Department of Fish & Wildlife

On Oct 9, 2020, at 1:49 PM, Gibbons, Bridget wrote:

Hi Stephanie and Bennett,

I hope you are both doing well. Below are comments related to SWAG Meeting #2:

Proposed Monitoring Network:

- The update regarding the monitoring network for ISW, including wells with confirmed access and those planned with TSS funding, is appreciated. Suggested that figures representing the monitoring network also identify the location of stream gauges. Additional monitoring wells that can be used to monitor the lateral gradient between near-stream groundwater levels and locations where significant pumping occurs may be helpful in identifying drivers of any ISW depletions for management actions.

Sustainable Management Criteria:

- In the process identified for developing sustainable management criteria, the "Check" step states that SMCs will be developed to avoid negatively affecting beneficial users, such as domestic well users. SMCs should be developed to be demonstrably protective of all beneficial users, including groundwater dependent ecosystems and environmental beneficial users of interconnected surface waters, and should be stated in the narrative.
- Please clarify if and how the GSP is distinguishing shallow or perched groundwater areas from the "principal aquifer," and identify planned management actions for these areas within the basin, as they may provide significant support to groundwater dependent ecosystems. Consider identifying shallow or perched groundwater areas as a second "principal aquifer" that provides significant yield to GDEs.
- The presented possible approach for developing SMCs for interconnected surface waters outlines two sets of MOs and MTs for river reaches that are determined to be connected or disconnected from groundwater. Due to the current data gap related to identification of the location, timing, and quantities of depletion of interconnected surface waters, it is possible that areas identified as disconnected may prove to be connected as additional monitoring takes place. There is also likely to be uncertainty around the precise location of the transition from connected reaches to disconnected, or vice versa. As improved monitoring and data may prompt reclassification of a reach's connectivity status, adaptive management will be necessary in order to change the SMC and associated management strategy. Additionally, it should be demonstrated that the SMCs for the disconnected reaches will not unreasonably impact nearby or downstream connected reaches. SMCs should be protective of environmental beneficial users of ISWs.

Thank you,
Bridget

Bridget Gibbons
Environmental Scientist | Water Rights Coordinator
California Department of Fish & Wildlife | North Central Region

ECOS, The Nature Conservancy, Environmental Defense Fund, and Cosumnes Coalition

On Oct 8, 2020, at 10:08 PM, Melinda Frost-Hurzel wrote:

Hi All--

Please find initial comments from ECOS, The Nature Conservancy, The Environmental Defense Fund, and Cosumnes Coalition attached.

Cheers,

Melinda

ECOS, The Nature Conservancy, Environmental Defense Fund, and Cosumnes Coalition Initial Comments and Responses to SWAG Meeting # 2, September 25, 2020

Thank you again for the opportunity to review and comment on the materials and discussion from the second meeting of the Cosumnes Subbasin Surface Water Advisory Group. Comments are organized according to the key questions raised in the meeting or as more general feedback regarding the monitoring network or Sustainable Management Criteria (SMCs).

What input does this group have on the proposed SGMA Monitoring Network?

It is clear that the monitoring network is being designed to meet SGMA requirements. A few points for feedback/consideration:

- The Cosumnes River flow is affected by diversions (both in the reach of concern and upstream), groundwater pumping, return flows from agricultural operations and wastewater, precipitation amount and timing, and geology affecting groundwater storage/flow rate. Impacts of flows and groundwater levels vary with timeline. Opportunities for multi-benefit management require insight to all of these factors, some of which will be monitored in compliance with SGMA. Management actions that address SGMA obligations may find funding in multi-benefit projects.

- The Environmental Defense Fund (EDF) white paper *Addressing Regional Surface Water Depletions in California* is a resource with respect to monitoring network design that offers some recommendations for monitoring interconnected surface water (ISW). Key points include:
    - Maintain the gradient between the aquifer and the stream at January 2015 level;
    - There is a need for both longitudinal (streamwise) and laterally spaced monitoring locations. Monitoring wells within 2,000 feet of a river or stream are valuable for documenting near-stream conditions but are not useful for determining whether or not interconnected surface water is being depleted due to influence of stream flow on levels in this zone; and,

    - Ideally, there will be a monitoring well at an intermediate location between pumping centers and a stream to determine the gradient between the stream and aquifer.
    - The current ISW monitoring network appears to be limited to near-stream wells and thus inclusion of additional lateral wells is recommended in a manner consistent with the document.
    - Monitoring wells should be spaced at cross-sections every 4-6 miles along the stream corridor. Please verify if the current network achieves this goal. The monitoring network should also account for geomorphic breaks along the corridor such as the presence of large man-made structures, major tributary confluences, and substantial longitudinal changes in valley width, bed slope, bed material type, and/or lithology, such that each 'geomorphic reach' has at least one monitoring cross-section.

- Propose designing monitoring network with both SGMA compliance and grant funded projects (that require adaptive management) in mind. Congratulations on taking advantage of the DWR Technical Services Grant and installing a well with screening at multiple levels in the OHWD jurisdictional area, providing important insights to groundwater flow behavior that affect both GDEs and water supply.

- Suggest ensuring both vertical and horizontal heterogeneity are captured in the monitoring design.

- Suggest developing a joint monitoring network in coordination with the South American Subbasin GSA working group that goes beyond minimal SGMA requirements and allows for monitoring of GDE health.

Where might this group be able to supplement the monitoring network / fill data gaps?

Suggest that the Cosumnes Working Group continue to work closely with other entities working in the river corridor currently or in the past: UC Davis Watershed Center, S. American Subbasin GSAs, Reg San, Cosumnes River Preserve, Omochumne Hartnell Water District, Cosumnes Coalition, Sacramento Area Flood Control Agency. Consider a coordinating outreach e-mail or meeting on a regular basis to gather info on current projects or monitoring resources added to avoid duplication and to take advantage of resources available to improve the regional data available.

Suggest coordinating closely with the S. American Subbasin to take advantage of opportunities for sharing monitoring resources and strategies, such as satellite imagery to refine understanding of river connection behavior, gaging station installation and maintenance, and so on.

What input does this group have on the proposed SMCs for Interconnected Surface Water?

It appears that the proposed approach for developing SMCs for interconnected surface water will not actually result in sustainability; that is, groundwater levels won't be required to be in

reach of root systems. If GDEs are unable to survive or reproduce, it won't be possible to attract multi-benefit funding to sustain these resources.

- Suggest that MOs should be set at a level that are *demonstrably* sustainable for ISWs/GDEs based on evidence/analysis[1], or suggest using an average groundwater level from the 2005-2015 time period[2].

- Suggest tracking gaging station flows for this first five years of SGMA and using that data to develop better informed MOs for surface water/groundwater interaction.

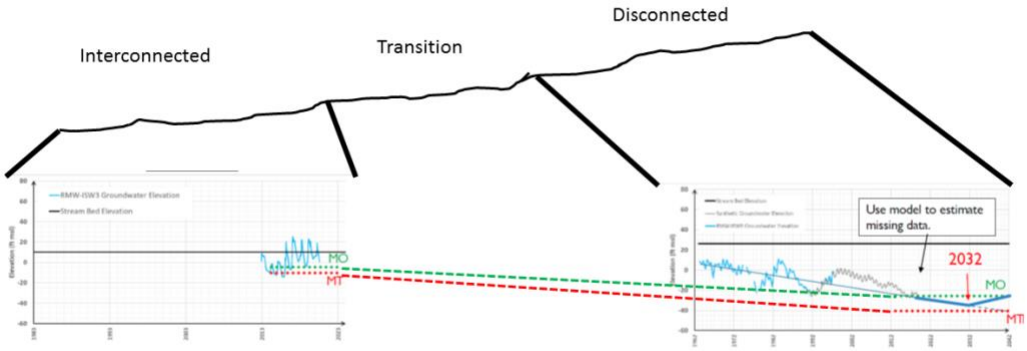
- Suggest defining perched aquifer areas to inform management actions.

- If 2015 groundwater levels will be used to define the MO, it is necessary to provide evidence that these groundwater levels are not adversely impacting ISWs, GDEs, or other beneficial uses. For example, a GDE or specific species may have been capable of surviving under 2015 groundwater levels for a period of time due to drought management attributes, however in the long term these groundwater levels may still lead to crown dieback, lack of sapling recruitment, decreasing returns of anadromous fish, etc. In this case, these groundwater levels would be unsustainable.
- Two approaches for SMCs were presented in the 9/16 Working Group meeting brief depending on if a river reach is determined to be interconnected or disconnected. If this strategy is identified as the preferred methodology please address the following comments:
    - This strategy relies on discrete mapping of reaches as interconnected vs disconnected and that these boundaries remain stationary through time. It may be difficult to clearly identify boundaries of interconnection and it is likely such boundaries are subject to fluctuation through time (see next comment).

    - Having two management strategies may create challenges at transitions from interconnection-to-disconnection (or visa-versa) as it creates a step change in MO/MT criteria. It may be necessary to create buffer regions between management units where interconnectedness is less clear to ensure management in disconnect reaches does not result in significant and undesirable impacts to interconnected reaches through propagation of declining groundwater levels that results in surface water depletions. In these buffer regions a separate management strategy may be needed with linear, sigmoidal, or other functional transitions between reaches (see concept figure below). In the absence of or even with this consideration in mind it must be shown that the SMCs for disconnected areas which allow continued lowering of GW tables will not impact nearby ISWs or the ability to achieve interconnected SMCs (Boulton & Hancock, 2006).

[1] See TNC's GDE Guidance Document for GSPs, here: https://groundwaterresourcehub.org/public/uploads/pdfs/GWR_Hub_GDE_Guidance_Doc_2-1-18.pdf

[2] See suggested approach in CADWR's 'Water Budget Best Management Practice' guidance, here: https://water.ca.gov/Programs/Groundwater-Management/SGMA-Groundwater-Management/Best-Management-Practices-and-Guidance-Documents



- The SMCs for interconnected reaches, as proposed, provide no safeguard that existing seasonal interconnections would be maintained despite the potential for climatic forcing and consumptive trajectories that are likely to increase GW level declines and put pressure on hydrologic processes that maintain these important connections. Further, there is as of yet no analysis, beyond hydro-statistical underpinnings, from a scientific basis for how ISW SMCs would avoid significant and unreasonable changes to beneficial uses (e.g. fluvial-riparian ecosystems and associated hydrogeomorphic processes and organisms that utilize these habitats) (see other comments above and below on this matter).
- SMCs for Interconnected reaches should ensure the maintenance of existing spatial and temporal GW-SW connections as evidence supports that any increase in SW depletion constitutes a significant and unreasonable impact due to the importance of these connections as well as to the uncertainty of ecosystem and biological responses to an increase in any amount of disconnection (see EDF report as well as Bogan et al., 2019; Boulton & Hancock, 2006).

- Specifying ISW SMCs based on short-term records may be problematic (see slide 24 for example) as such periods may not adequately reflect baseline conditions or may otherwise be unrepresentative of the region's hydro-climatic variability. It is understood that data limitations exist and model simulations may be used to supplement historic measurements. Will a minimum period of record such as 2005-2015, be set when establishing SMCs?

- The SMCs for disconnected reaches allow for groundwater levels to decline for a period before P&MAs result in the conceptualized 'V' shaped recovery toward MO's. The impact of these continued declines may have uncertain consequences along the river corridor particularly on riparian communities, GDEs, and channel morphology. For example, if continued GW lowering results in mortality to riparian tree communities this could enhance bank instability and erosion. Such issues should be researched to have a conceptual level understanding of the

consequences of these trajectories. Many of these communities may also be GDEs to which there are additional comments in this document.

What represents an Undesirable Result? How would you define a "significant and unreasonable" change in the system?

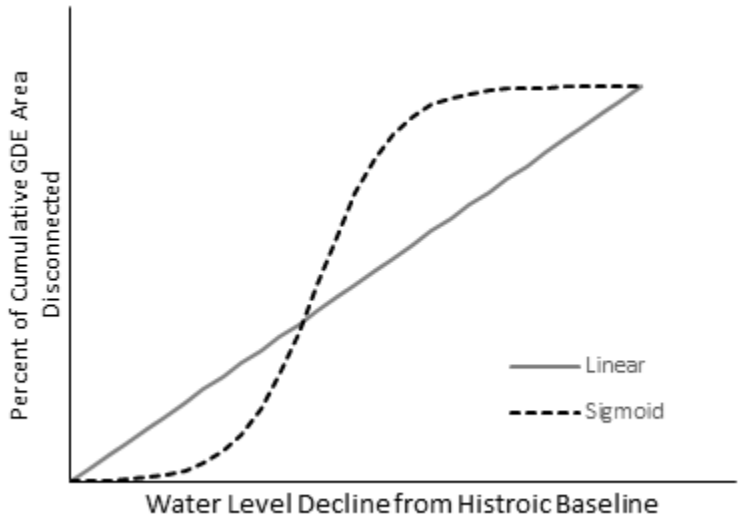
We suggest that part of the answer to this question is based on what we hope to accomplish with our partners in this basin. If these goals are not being achieved, then it is very likely that impacts are "significant and unreasonable." Goals for the Cosumnes subbasin should include:

- Sustain water supply for agricultural, residential, and municipal use;
- Create fall flow conditions that allow salmon migration for spawning
- Sustain outgoing flow conditions for juvenile salmon migration
- Sustain/improve groundwater levels in riparian corridor to support existing GDEs from highway 16 to highway 99; and
- Sustain/improve groundwater levels for riparian forest and associated GDEs from highway 99 to highway 5 as necessary (groundwater levels are higher in this area).

In addition, when addressing undesirable result "6," depletions of interconnected surface water [Water Code §10721(w)(6)], any additional depletions beyond January 2015 levels should be deemed "significant and unreasonable" and, therefore, an undesirable result. This is due to the history of overdraft in the subbasin, the massive public investment in the Cosumnes River Preserve (in excess of $100 million), and the State Water Resources Control Board's (State Water Board) designation of the Cosumnes River and other streams in the subbasin as "fully appropriated streams" (FAS). The Cosumnes is a FAS from July 1st to October 31st, the South Fork Cosumnes River is from April 15th to October 31st, and Deer Creek is from May 1st to October 31st (see Order WR 98-08). Due to these factors, the GSP should assume that any further depletions of interconnected surface water are impacting beneficial uses and are, therefore, "significant and unreasonable." For a more detailed discussion of this topic see EDF's white paper "Addressing Regional Surface Water Depletions in California."

It is possible that during normal, above normal, and wet water year types there will be "excess" water flowing in the Cosumnes River and other streams in the subbasin. In this case, some depletions of interconnected surface water may be reasonable, but much more detailed hydrologic analysis will be required to determine when there is truly excess water available before the GSP allows further depletions. The State Water Board's guidance for diversion of surface water to underground storage may be a useful standard in the interim for determining if a depletion of interconnected surface water is reasonable. This guidance suggests that when stream flows exceed 90% of historical average daily flow between December 1st and March 31st it is safe to divert additional surface water for the purpose of groundwater recharge. We acknowledge this guidance is intended for a different purpose than assessing depletions of interconnected surface water, but believe it is a good rule of thumb until a more thorough analysis of the existing demands and beneficial uses along the streams of the subbasin is completed.

Lastly, several currently proposed SMCs cite 2015 water levels as the MO. As discussed in the section above it is possible this water level was already impacting beneficial uses (domestic wells/GDEs/ISWs) in the Basin. Please provide an analysis of the impact of this water level on these uses relative to a reasonable alternative baseline condition (e.g. average from 2005-2015 or longer period of record). This could be in the form of plots of incremental (i.e. 1 ft) water level declines from baseline vs resource metrics. Resource metrics could include: i) percentage of domestic wells that are dry; and ii) percent area of GDEs that become disconnected. The shape of such plots may be useful in understanding and classifying impacts (e.g. a liner response is much different than a sigmoidal response where a clear threshold of increased impact is present – see conceptual figure below).



Recognizing that arresting the long-term decline in groundwater levels in this Basin will require significant resources, what ideas does this group have for how sustainability can be achieved?

Note that groundwater levels can be maintained higher at some locations; it is not necessary to increase groundwater elevations across the entire basin to improve undesirable results at other locations.

Suggest a combination of demand side management (strategic fallowing, water conservation) and multi-benefit projects (flood MAR, reclaimed water for reuse, incentives, water markets, GW banking, floodplain re—connection).

Increase coordination with the South American Subbasin GSA working group to identify opportunities for technical collaboration, coordinated funding proposals, and general information sharing.

General comments on approaches to designate SMCs for groundwater level lowering, ISWs, and GDEs.

- In setting SMC criteria for GDEs please consider the following factors:
    - There is variability in groundwater requirements for the various ecologic components that make up a GDE (e.g. response/requirements of different

vegetation; seasonal requirements; life-history requirement of biota that inhabit GDEs) (Easmus & Froend, 2006);
    - There may be a lagged response of GDE health to alteration of GW conditions requiring conservative approaches to what GW alterations are acceptable (Easmus & Froend, 2006);
    - GDE health responds differently depending on the rate and magnitude of GW decline. Vegetation appears to be more resistant/resilient to low rates and magnitudes of GW declines compared to more rapid and larger declines which could force GDEs over a 'tipping point' toward an alternative ecological state (Easmus & Froend, 2006; Froend & Sommer, 2010; Kath et al., 2014); and
    - GDE recovery after a 'tipping point' is exceeded may be uncertain or unlikely (Kath et al., 2014).
- In setting MT criteria, the use of linear fits to extrapolate future conditions is sensitive to the period of record. It is recommended that a standardized or minimum period of record be used if this is the selected approach to setting MTs. The period should be sufficient to capture long-term GW trends and regional hydroclimatic variability that includes inter-decadal processes.
- Current MTs for many sustainability indicators allow for continued declines in GW levels that appear to assume stationarity in the processes driving GW declines. The ability to achieve MOs based on future declines following these trajectories should be thoroughly analyzed and built into interim measurable objectives with associated management actions should future trajectories not follow these patterns, which could be the case given non-stationarity in GW trends and increased withdrawals and GW declines from climate change related factors.

References

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Amelia VanKeuren, Ag-Res (Elk Grove)

Comments for the 9/25/2020 SWAG meeting

Amelia Vankeuren, Ph.D.
Assistant Professor of Geology, Sacramento State
Elk Grove resident
Member of the Greater Sheldon Rural Estates Homeowners Association

SGMA monitoring network

- It is vital that the groundwater elevation monitoring network include a distribution of wells both spatially and with depth, including wells at the typical depth of domestic wells. If most or all monitoring wells are deeper public supply or irrigation wells, there could be locally confined conditions that would cause monitoring wells to show a higher groundwater elevation than domestic wells actually have. Thus domestic wells could reach groundwater elevations lower than the sustainable management criteria without the monitoring network catching the problem and triggering a response.
- It is critical that the groundwater *quality* monitoring network also include a distribution of wells both spatially and with depth, including wells at the typical depth of domestic wells. If all wells used for monitoring groundwater quality are for public supply (as would be the case with wells from the Public Water System), they may not catch changes to groundwater quality that occur in the shallower portion of the aquifer. For instance, nitrate is often at higher concentration in shallower wells since it is typically transported from the surface to depth.
- It is necessary to be able to determine the location at which the Cosumnes River becomes disconnected. I am concerned that the network used to determine depletions of interconnected surface water is not sufficiently dense where the river is expected to shift from disconnected to connected to the river. While the groundwater elevation contours in TM6 figures GWC-01 and GWC-02 showed dashed lines indicating the groundwater elevations near the river are uncertain, figure GWC 15 does not take into account that level of uncertainty; it instead suggests that the possible locations of GDEs only extend slightly farther upstream than the Cosumnes Preserve, not as far upstream as the McConnell Station. The new monitoring network would benefit from more well/river stage monitoring pairs, particularly in the region where the river likely connects between the McConnell station and the most downstream monitoring point.

Sustainable Management Criteria

- It is essential that domestic well users still have access to groundwater at the level of the GSP Measurable Objective. I am concerned that if that level is set to the 2015 water level, there may be tens or hundreds of domestic wells that go dry. As Anona mentioned, the community well survey showed that close to 200 domestic wells may have gone dry in 2015 as a result of the drought, which is about 6% of domestic wells in the subbasin. While I recognize that some of those wells may not have been in use,

some of them (or other wells) may have. The fact that no one has heard anecdotal evidence of wells going dry does not prove that they did not. 200 stakeholders filling out a survey on well conditions is a good start, but if there are close to 3,000 wells in the subbasin then clearly we have not heard from everyone. I have many neighbors with domestic wells who do not have a clue about SGMA or the GSP process. This suggests that there may be other domestic well owners who are not tuned into the process and don't know who to tell that their well went dry. There should be efforts to track down the wells that may have gone dry and connect with the well owners to verify the status of their wells during the drought. If the wells did go dry, that may necessitate altering the measurable objective.

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