

Cosumnes Subbasin SGMA Technical Advisory Committee

DRAFT Meeting Summary #4

Meeting held September 13, 2017

Prepared by the Consensus Building Institute

MEETING IN BRIEF

At its fourth meeting, the Cosumnes Subbasin Technical Advisory Committee reviewed elements of the Cosumnes subbasin draft Proposition 1 application. The application will focus on groundwater sustainability plan (GSP) development as the primary project, with a potential additional project to install monitoring well infrastructure. EKI, the subbasin's independent technical advisor, presented an early draft of the work plan for GSP development and requested GSA feedback by September 20. TAC members discussed the pros and cons of an accelerated timeline for GSP development (2020 vs. 2022); the Working Group will resume this discussion at its upcoming meeting. In an effort to integrate a broad range of interests and perspectives into TAC discussions, the TAC received presentations from a guest panel composed of Pablo Garza, Political Director, Environmental Defense Fund; Graham Fogg, UC Water Security and Sustainability Research Initiative, UC Davis; and Melinda Frost-Hurzel, Cosumnes Coalition.

ACTION ITEMS

| Who | What |
|---------------|--|
| CBI | Post and email all presentations and handouts from TAC meeting, including EKI maps and relevant Nature Conservancy study |
| Water Forum | Invite representatives from E. San Joaquin to TAC meeting to continue addressing issues related to GSP coordination |
| Working Group | Discuss 2020 vs. 2022 GSP timeline at Sept. meeting |
| TAC members | Provide feedback on draft Work Plan to Anona Dutton/EKI by 9/20 |
| TAC members | Invite stakeholders/interested parties to attend TAC/Work Group meetings, or suggest that they present at a TAC meeting |
| TAC members | Share all available technical data and resources with EKI |
| GSAs | Send EKI information for additional Projects/Project elements (if applicable) |
| EKI | Revise draft Work Plan, share with TAC in advance of 10/11 meeting |

DISCUSSION – KEY THEMES

Below is a summary of key themes discussed at the TAC meeting. This summary is not intended to be a meeting transcript. Rather, it focuses instead on the main points covered during the group's discussions.

WELCOME AND UPDATES

Facilitator Bennett Brooks welcomed participants to the fourth meeting of the Technical Advisory Committee (TAC), which works in service of and provides recommendations to the Cosumnes Subbasin SGMA Working Group. Mr. Brooks provided the following updates:

- All seven GSAs in the subbasin approved the SGMA Working Group [Framework Agreement](#), which provides a strong foundation for near-term work in the subbasin.
- The Water Forum fully executed EKI's contract for independent technical advisory services for the Cosumnes Subbasin. EKI's primary scope of work is to develop the work plan and budget for the Cosumnes Subbasin Proposition 1 grant application. The EKI team is led by Vice President Anona Dutton.
- The Proposition 1 proposal solicitation package (PSP) was released on September 8; the application is due by November 13 2017.

COSUMNES SUBBASIN PROPOSITION 1 PROPOSAL DEVELOPMENT

Prop. 1 Status and Updates

The Prop. 1 PSP was released on September 8 and is due November 10, 2017. The GSA grantee and all entities named as project proponents or sub-grantees must meet eligibility requirements outlined in the PSP. DWR requires a single, consolidated application per basin.

What changed from the draft PSP

- The start date to apply cost sharing expenses is **backdated to January 1, 2015**.
- Basins submitting alternative plans are now eligible for funding. This adds 64 basins to the potential applicant pool.
- The final PSP has no guaranteed minimum/maximum funding allocations for Category 2 projects, thereby indicating less certainty about the amount of available funding.
- The final PSP removed reference to the need to document financial need for Category 2 proposals and removed the associated evaluation criterion.
- The final PSP removed reference to requiring supporting documentation for access to private property for proposed projects (this requirement would meaningfully impact the drilling of new monitoring wells).

Phase 1: Draft Prop. 1 Grant Application

The Cosumnes subbasin Prop. 1 application will focus on GSP development as the primary project, with a potential additional "project" to install monitoring well infrastructure. This additional project would require significant detail in the workplan and budget. Given that the score assigned to each Prop. 1 application is an average of the application's project scores, each project within the application needs to be well-planned and thoughtfully conceived.

Status of information request

While no projects were submitted to EKI as of 9/12/17, GSAs submitted the following studies and background information:

- Amador Water Agency provided a groundwater supply study and IRGWMP for Lake Camanche WID #7.
- Sloughhouse Resource Conservation District provided two proposals for work to better delineate the presence of gravel channels and to identify potential sites for groundwater recharge near the Cosumnes River.

Inter-basin coordination - a key component of the work plan - involves a series of tasks that will occur in each planning phase. There is a near-term opportunity for basin boundary line adjustment, between January and March, 2018.

SGMA undesirable results (UR)

SGMA legislation uses 2015 as a baseline against which to measure undesirable results. Ms. Dutton provided an overview of each of the undesirable results identified under SGMA, as well as shared an initial scan (based on readily available data) of the extent to which URs appear to be factors in the Cosumnes Basin. Below is a list of each of the six URs, as well as a quick snapshot of its relevance within the subbasin:

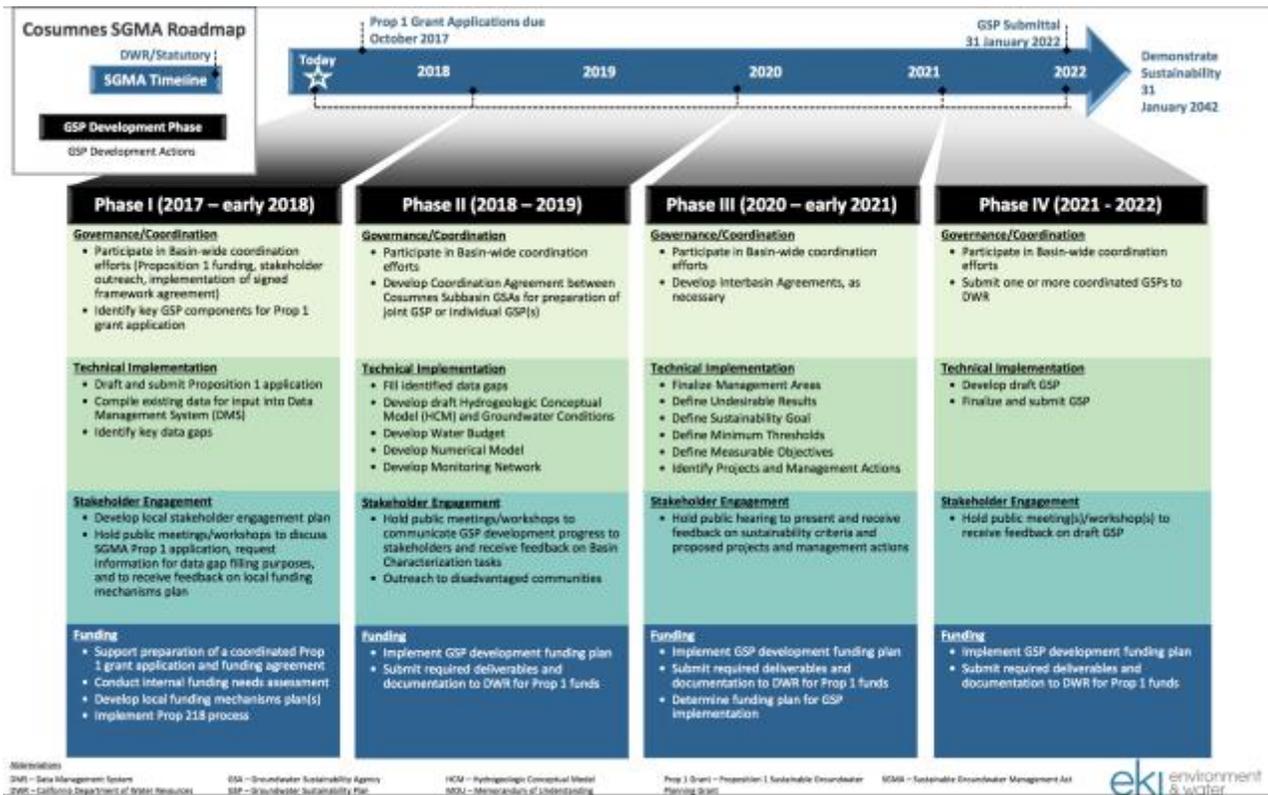
1. **Chronic lowering of groundwater levels** indicating a significant and unreasonable depletion of supply
2. **Significant and unreasonable reduction of groundwater storage**
 - Data show persistent groundwater level declines and storage depletion in the subbasin, as a long-term trend from 1965 to present. It is important to understand spatial trends related to this UR.
 - Amador County data exhibits some resilience in short-term data from 2013 to 2017.
3. **Significant and unreasonable seawater intrusion** - *not an issue in the Cosumnes Subbasin*
4. **Significant and unreasonable degraded water quality**
 - Groundwater quality is not well quantified in the subbasin. Limited monitoring has been focused on constituents such as total dissolved solids, arsenic and nitrates.
 - EKI used publicly available data to observe water quality issues and trends within the subbasin and found that there is a *large data gap for publicly-accessible data*. EKI flags this as *critical data-gap*, which the subbasin will need to address in order to better understand the issue.
 - Water quality data likely has been privately collected from wells. TAC members suggested that perhaps **GSAs can share data**.
 - EKI mapped known **contamination sites** and welcomes further GSA input and data contributions
 - The Prop. 1 grant application needs to establish the story of the subbasin's technical need: the working group is composed of a collection of seven entities that have always worked locally and are now coming together without a pre-existing legacy of basin-wide monitoring.
5. **Significant and unreasonable land subsidence**
 - Small subsidence (between one to three inches) was observed in the 2015-2016 time period, with the highest rate observed in the Amador County area.
6. **Surface water depletions that have significant and unreasonable adverse impacts on beneficial uses of surface water and/or groundwater**
 - EKI does not currently have much data on interconnected surface water and groundwater-dependent ecosystems (GDEs). They will continue to work with experts to build knowledge and data in this area.
 - In response to TAC member interest, EKI is to share a relevant Nature Conservancy study and EKI maps (in which darker blue shading indicates more groundwater-dependent watersheds); CBI to post these materials on the subbasin website.

Sloughhouse will provide EKI with additional technical studies. Anona Dutton reiterated her request that GSAs share any available technical data and resources with EKI.

EKI's initial work on developing a GSP scope has included a preliminary assessment of available data and data gaps related to undesirable results.

Draft work plan for GSP development

EKI developed the following draft work plan for GSP development and requests GSA feedback on the draft by September 20:



The draft work plan comprises four phases (Phase I through IV) and four major components:

1. Governance and Coordination - *inter-basin and intra-basin coordination.*
2. Technical Implementation - *how the subbasin will develop data for the GSP.*
3. Stakeholder Engagement - *as articulated in the stakeholder outreach and engagement plan and executed during GSP development and beyond.*
4. Funding - *Prop. 1 application and beyond.*

A budget will accompany the work plan. Each task in the work plan will have a corresponding budget line item. EKI will develop a draft budget in advance of the October TAC meeting.

Accelerated timeline for GSP development

The TAC discussed the merits and challenges of accelerating the timeline for development of the Cosumnes Subbasin groundwater sustainability plan (GSP) from January 31, 2022 (standard SGMA deadline for GSP-development in medium- and high-priority groundwater basins; the Cosumnes Subbasin is a medium-priority basin) to January 31, 2020 (SGMA deadline for GSP-development in critically overdrafted basins, including the Eastern San Joaquin Subbasin to the south of the Cosumnes Subbasin).

Assuming that GSP-development begins in early 2018 (when Prop. 1 funds become available) and is completed by the January 31, 2022 deadline, the subbasin would have approximately four years for GSP development. Shifting to the 2020 deadline would cut the time available for GSP development to two years and accelerate the end date for becoming sustainable (20 years later).

TAC members were asked to share their views on the merits and/or disadvantages of shifting to an accelerated timeline. Below is a synopsis of the views expressed. The issue is to be discussed again at the September 20 Working Group meeting.

| Pros of Accelerated Timeline | Cons of Accelerated Timeline |
|--|---|
| <ul style="list-style-type: none"> • Keep pace with Eastern San Joaquin subbasin’s 2020 GSP development timeline, thereby ensuring the Cosumnes Subbasin isn’t disadvantaged in cross-basin coordination • DWR will provide technical support services in the future. The Cosumnes may receive priority funding if the subbasin is shovel-ready earlier than its 2022 deadline. • GSP preparation will likely be more cost-effective (i.e. shorter timeframe, lower consultant costs, fewer meetings, etc.) • Subbasin can shift more quickly to local control/implementation • Timeline is a driver of efficiency; earlier deadline will focus participation and effort <ul style="list-style-type: none"> ○ Regardless, the subbasin needs to collect data quickly so that the process is not overly rushed at the end. • Potentially “lower bar” in Prop. 1 evaluation by demonstrating to DWR the subbasin’s <i>proactive and collaborative approach</i> to SGMA compliance. <ul style="list-style-type: none"> ○ Note: DWR’s Hong Lin commented that there is no “lower bar.” The evaluation does not include criteria for an accelerated timeline. | <ul style="list-style-type: none"> • GSP will include less certainty/more unknowns as there will be less time to evaluate and understand subbasin conditions <ul style="list-style-type: none"> ○ Note: If the basin opts to stick with its 2022 filing deadline, several TAC members suggested frontloading the necessary technical work to foster cross-basin coordination consistent with ESJ’s 2020 filing timeline. • May lose economies of scale as the implementation efforts may be more fragmented (e.g. monitoring network development) • More intensive work effort in the near-term; may overly tax GSA partners and short-circuit important fact-finding and dialogue • Likely to accelerate SGMA compliance timeline (20-year implementation starts when GSP is approved by DWR, not the initial 2022 filing deadline) <ul style="list-style-type: none"> ○ EKI and the Water Forum will seek clarification from DWR on this issue. • There is no real reason to rush GSP-development -- besides “getting it over with.” |

Outstanding questions and necessary information related to an accelerated timeline:

- How technically solid a GSP can the subbasin develop by 2020? Does accelerating GSP-development compromise GSP integrity? What are the vulnerabilities?
- If the Cosumnes’ GSP development timeline is not accelerated, is it possible to frontload analyses to ensure the Cosumnes can engage on key cross-border coordination issues prior to ESJ’s 2020 deadline? What would that require?

- Could the Prop. 1 proposal include a 2020 timeline in an open-ended way? **Or** would the subbasin be locked into adhering to the 2020 timeline and ultimately penalized if it fails to meet the early deadline?
- Hong Lin noted that E. San Joaquin received \$250k grant to proactively develop its model. She suggested inviting ESJ to again present on its current modeling work.

Timeframe for TAC/Working Group decision on 2020 vs. 2022 GSP development:

The Working Group needs to determine GSP-development timeframe within the month, as the decision will impact the Prop. 1 budget. Though the overall scope will remain unchanged, a shorter timeframe will change the coordination scope and the associated cost. The Working Group will discuss this matter at its September meeting.

SGMA Monitoring Requirements

SGMA will require a dedicated monitoring network to measure basin performance against sustainability criteria. EKI highlighted the possibility of including monitoring as a component of the Prop. 1 funding application. The TAC discussed the following points:

- EKI recommends identifying where data gaps currently exist in the groundwater monitoring network.
- Potential monitoring well locations include areas of groundwater-surface interaction and in the vicinity of rivers.
- To be used for monitoring, a well would first need to be taken out of service.
- TAC participants highlighted the value of establishing a coordinated monitoring effort that would involve the Irrigated Lands Program and other programs.
- Data indicating subsidence in the Amador County area bears further investigation. Graham Fogg suggested that the data could be inaccurate or that subsidence could be due to non-groundwater related phenomena.
- In gathering and assessing data, it will be important to clarify between groundwater-related undesirable results and undesirable results that are caused by factors not having to do with groundwater.
- DWR will evaluate every GSP against its own data and information.

Next Steps for Prop. 1 Proposal Development

- **GSAs** – send EKI information for additional Projects (if applicable)
- **GSAs** – send EKI comments on draft work plan and schedule **by 9/20**
- **EKI** – Prepare second draft of work plan (95% complete) **by 10/3**
- Next TAC meeting on **Oct. 11**
- Prop. 1 submission to DWR due **by 11/10**

AFFECTED WATER USER/USES PERSPECTIVES

The TAC hosted a panel discussion with three representatives of beneficial water uses and users: Pablo Garza, Political Director, Environmental Defense Fund; Graham Fogg, UC Water Security and Sustainability Research Initiative, UC Davis; and Melinda Frost-Hurzel, Cosumnes Coalition. The panel format offers an opportunity to hear how other uses and users think about groundwater planning issues and inform the subbasin's development of its GSP. Panel discussions are also a concrete way to demonstrate to DWR that the TAC and Working Group are actively fostering dialogue across stakeholder interests.

Pablo Garza, Political Director, Environmental Defense Fund

The Environmental Defense Fund (EDF) is tracking SGMA at the state level and at the basin level in some areas. Mr. Garza explained that the intent of SGMA is to change how Californians manage groundwater, and that meeting the goals of SGMA will require a change from “business as usual.” Mr. Garza noted that significant resources have been allocated to protect habitat in the Cosumnes Subbasin (notably the Cosumnes River Preserve and Cosumnes River Corridor). As such, significant data and information are available on groundwater dependent ecosystems in the Cosumnes Subbasin. It is, he noted, critical to monitor undesirable results, as many groundwater-dependent ecosystems exist within the subbasin.

Graham Fogg, UC Water Security and Sustainability Research Initiative, UC Davis

(www.ucwater.org)

With regard to undesirable results within the subbasin, Mr. Fogg is primarily concerned about chronic groundwater decline, which leads to storage depletion. To address overdraft, the subbasin must either decrease pumping or increase recharge. UC Water is researching how to maximize total surface and groundwater storage in the basin, including significant augmentation of groundwater recharge – a move that would have the twin benefit of addressing storage depletion and enriching groundwater dependent ecosystems. Currently the unused storage space for additional groundwater storage in central and southern Sacramento County is on the order of two-thirds the storage capacity of Folsom Lake.

UC Water Activities to Maximize Water Security in the American-Cosumnes Subbasin:

- Floodplain recharge on the Cosumnes River corridor
- Whole-watershed maximization of groundwater and surface water storage
- Targeted recharge capitalizing on the heretofore unknown subsurface architecture of the aquifer system
- Installation of groundwater observatory to monitor system response to groundwater pumping and recharge
- Initiative with Stanford to fly airborne electromagnetics in entire Central Valley to better characterize subsurface architecture

Additional UC Davis research:

- The UC Davis team is exploring the concept of moving levees back (referred to as levee setbacks) to allow the floodplain to flood/inundate. The team is interested in monitoring the groundwater recharge benefits of levee setbacks.
- A UC Davis team is working with existing groundwater models to look at opportunities for maximizing groundwater storage between Folsom Lake and the American-Cosumnes Basin.
- UC Davis’s work on the American-Cosumnes Basin serves as a pilot for what can be done elsewhere in California.
- The UC Davis team analyzed American River flows over the past century, including water availability in high flows. They found that skimming water from the high flows would make substantial water available for recharge.
- Implication for GSP: Basins in deficit need to develop a plan to address the deficit. These basins have two options - to decrease pumping or increase recharge.
- An advanced, high-resolution groundwater model of Sacramento County used large numbers of well logs (1,100) to define the subsurface architecture and prime opportunities for recharge. The modeling analyses indicate substantial differences in recharge potential depending on location relative to the subsurface framework of aquifer and non-aquifer units. For example, the analyses show that finding and developing the most

geologically advantageous locations can result in substantially higher (65x) recharge rates as compared to locations chosen without consideration of the subsurface geology.

- While recharge occurs locally, the benefits are regional.

Melinda Frost-Hurzel, Cosumnes Coalition

Ms. Frost-Hurzel's presentation focused on outlining the potential for shared benefits associated with groundwater recharge projects, as well as providing an overview of the off-season groundwater recharge irrigation project the Coalition will be conducting in partnership with the Omochumne Hartnell Water District.

Ms. Hartnell first underscored the potential for recharge to provide a win-win solution for the Cosumnes, meeting both water supply and ecosystem objectives. The Cosumnes Subbasin is particularly important, she noted, given several key factors:

- Supports important agricultural region
- Municipal and agricultural water supply
- High quality salmon habitat
- Largest remaining Valley riparian forest
- Last live connection to the Delta
- Above sea level Sand Hill Crane and other threatened species habitat
- Reference reach

Ms. Frost-Hurzel noted that the Cosumnes Coalition works on the watershed scale given that changes in upper watershed flows (due to increasing population and water demand) will impact the lower watershed. She also reviewed the range of options available to the subbasin to increase recharge, including:

- Flow augmentation
- Off season irrigation
- Flood plain restoration
- Irrigation with recycled water/stormwater diluent
- Recharge basins
- Levee setbacks
- Deep drywells
- Seasonal wetlands
- Real time monitoring is critical for adaptive management
- Groundwater models are valuable tools for identifying recharge areas.

TAC SCHEDULE

The TAC agreed to cancel its tentative September 25 meeting in order to give EKI time to develop a more complete work plan for its review in early October. TAC participants completed forms to aid the Water Forum in identifying a standing TAC meeting schedule beyond October.

MEETING PARTICIPANTS

Gene Mancebo, Amador County Groundwater Management Authority
Damon Wykoff, Amador County Groundwater Management Authority

Mike Israel, Amador County Groundwater Management Authority
Herb Garms, Sloughhouse Resource Conservation District
Phil Williams, Sloughhouse Resource Conservation District
Scott Morris, Sloughhouse Resource Conservation District
Leo VanWarmerdam, Galt Irrigation District
John Mulrooney, Galt Irrigation District
Rick Wohle, Clay Water District
Sue Wohle, Clay Water District
Mark Stretars, Omochumne-Hartnell Water District
Mike Wackman, Omochumne-Hartnell Water District
Kerry Schmitz, Sacramento County
Rodney Fricke, Sacramento County
Tom Gohring, Water Forum
John Lowrie, Water Forum
Aaron Lewis, EKI
Anona Dutton, EKI
Bennett Brooks, CBI
Julia Golomb, CBI

PRESENTERS

Pablo Garza Environmental Defense Fund
Graham Fogg, UC Davis
Melinda Frost-Hurzel, Cosumnes Coalition

For questions regarding this meeting summary, please contact Tom Gohring at the Water Forum or Julia Golomb at the Consensus Building Institute.

Visit cosumnes.waterforum.org for the latest meeting information and materials.