

Cosumnes Subbasin SGMA Working Group Meeting

Meeting #31

Meeting held July 17, 2019

Prepared by the Consensus Building Institute and the Water Forum

MEETING-IN-BREIF

At the Cosumnes Subbasin Working Group’s thirty-first meeting, the EKI technical consulting team presented its preliminary water budget. EKI and Working Group participants discussed how to reduce uncertainty in the water budget. GSAs will receive a list of high priority data needs from EKI. The Working Group also reviewed recommendations from a subset of GSA representatives who met to discuss the Proposition 68 grant application, including what projects the Cosumnes Subbasin should propose, which entity should serve as contract administrator, and whether to accept cost share funds from SAFCA. The next Working Group meeting will begin at 8:30 am on August 21, 2019.

ACTION ITEMS

Who	What
EKI	Review ESJ draft GSP against comments previously submitted, prepare summary of review findings for GSA review.
GSAs	Review ESJ public draft and send comments to EKI for inclusion in draft comment letter.
EKI	Develop a prioritized list of info needed from GSAs (highest priority, secondary data needs; GSA-specific requests).
GSAs	Forward data based on EKI request. Specific data needs identified during the meeting include: * GSAs to review and verify or revise land use data and irrigation source (EKI/WF provide detailed land use overlay to support GSA feedback) * Mike Wackman to follow with Galt ID on EBMUD data * GSAs to provide localized rainfall source data * Amador to provide, if possible and relevant, (1) Mokelumne diversion data, (2) PG&E climate data * Water Forum to work with Clay WD to develop information on land acreage by residential property owner
Water Forum	Invite SAFCA to August 21 Working Group meeting.
Water Forum	Follow up with SAFCA re: funding for Prop. 68 development (potential to exceed \$25k).
Water Forum	Explore ability to provide match funding for Prop 68 (excess Prop. 1 match available).

Sac. County and OHWD	Conduct due diligence on ability to serve as contract administrator for proposal development, with OHWD as first choice.
Sac. County	Follow up with financial team to identify whether Sac. County could be a viable grant administrator.
Small planning group (Linda, Barbara, Austin, Mark, Darrell, WF)	Develop recommendations for a geophysical workshop (open to the public); need to sharpen objective, focus, participants and target audience.
Water Forum/CBI/EKI	Develop recommendation to foster more in-depth GSA discussions of technical work (e.g. water budget).

DISCUSSION – KEY THEMES

Below is a summary of key themes discussed at the meeting. This summary is not intended to be a meeting transcript. Rather, it focuses on the main points covered during the group’s discussions and any action items.

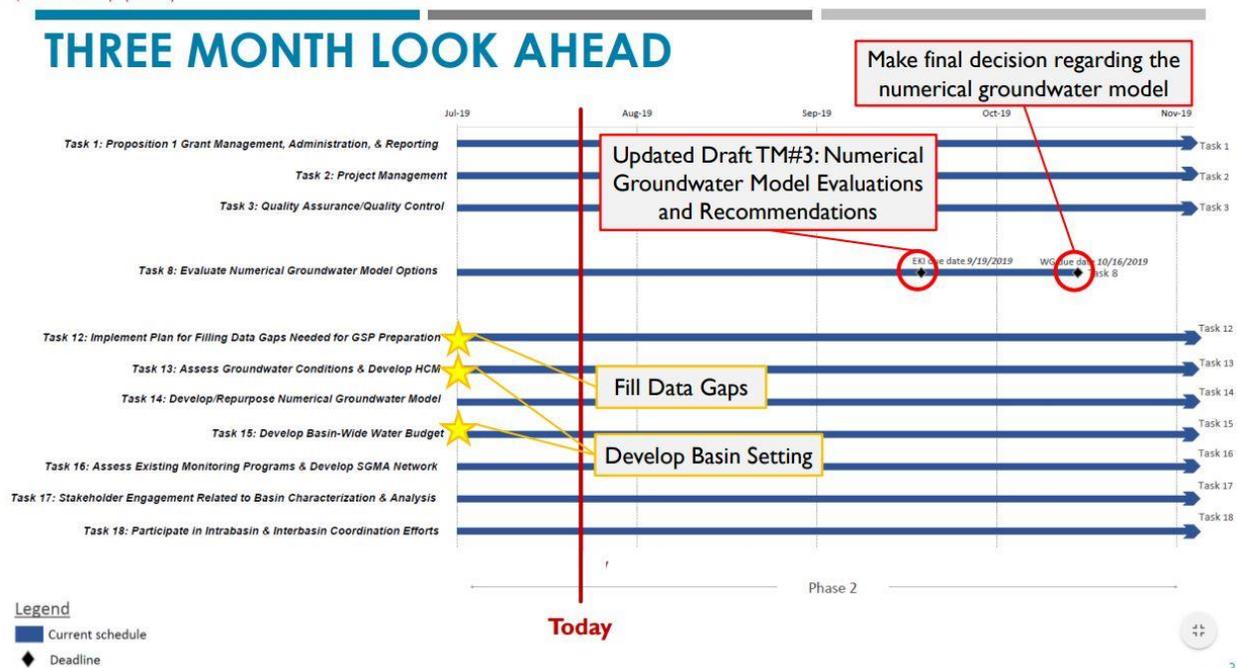
UPDATES

GROUNDWATER SUSTAINABILITY PLAN UPDATES

Three-month look-ahead

EKI shared a three-month look-ahead, included in [EKI Technical Presentation #9](#).

Draft – For discussion purposes only



Groundwater modeling coordination with CoSANA

John Fio, EKI, reported that Cosumnes/South American/North American Subbasin (CoSANA) modelers shared progress on the grid mesh. EKI was satisfied that the CoSANA modelers took the Cosumnes Subbasin's input very seriously in developing the mesh. Fio also shared that the CoSANA team may need groundwater sustainability agency (GSA) involvement as they reconcile the alignment of different GIS map coverages so that the model will represent desired areas. The CoSANA team has asked for data - including historical water levels, pumping, confirmation of land uses - to begin populating the model.

Discussion – Groundwater modeling coordination with CoSANA:

- A Sloughhouse Resource Conservation District (SRCD) representative expressed concerns that he did not see representation of an underground river and that USGS flow data did not account for augmented flows. Fio responded that it is premature to incorporate subsurface features into the model. Fio also reminded the group that EKI requested but never received flow augmentation data from GSAs.
- An Amador Water Agency representative asked whether GSAs were seeing impacts from illegal cannabis farms extracting water from rivers, and remarked that effects are seen on certain stretches of the Mokelumne River. Other GSA representatives did not know of current impacts, but commented that it is important to be aware of the issue. Fio noted that this issue was also raised in the Santa Cruz Subbasin.

Technical Support Services grant

Omochochumne-Hartnell Water District (OHWD) submitted a Department of Water Resources (DWR) well service report. Amador Water Agency representatives reported that a well has been drilled at the site near the confluence of Dry Creek and Jackson Creek, as part of the DWR Technical Support Services (TSS) grant. The second site selected for Amador Water Agency was problematic due to the presence of a sensitive species of salamander. Amador Water Agency is working to select an alternate site. A DWR representative present at the meeting confirmed that the well drilled in Amador County is likely the first well drilled as part of the TSS grant.

ESJ Updates

EKI reported that the Eastern San Joaquin County Groundwater Authority (ESJ) held a meeting focused on outstanding issues with the draft ESJ groundwater sustainability plan (GSP), released the prior week. The review period for the ESJ draft GSP ends August 25. EKI and GSAs will need to review the draft and document concerns, paying special attention to whether ESJ addressed issues that the Cosumnes Subbasin raised with initial drafts.

Discussion – ESJ Updates:

- Mike Wackman, OHWD, reported that the North San Joaquin GSA reached out with an offer to discuss issues with the ESJ draft GSP.
- DWR clarified that after the plan is submitted to DWR, there will be an additional public comment period.
- EKI noted that some comments already submitted by the Cosumnes Subbasin were quite significant (e.g. that climate change was not represented), and ESJ will likely not be able to address them.

Next steps – ESJ Updates:

- EKI will review the ESJ draft GSP against comments previously submitted and prepare a summary of review findings for GSA review.
- GSAs will review public draft and send comments to EKI for inclusion in draft comment letter.

GENERAL UPDATES

Financial/ grant related issues

Sacramento County reported that it received a first payment from DWR.

Relevant updates from Subbasin GSAs

SRCD reported that Pelayo Alvarez will talk about carbon farming and opportunities to help with groundwater recharge at the July 23 SRCD meeting.

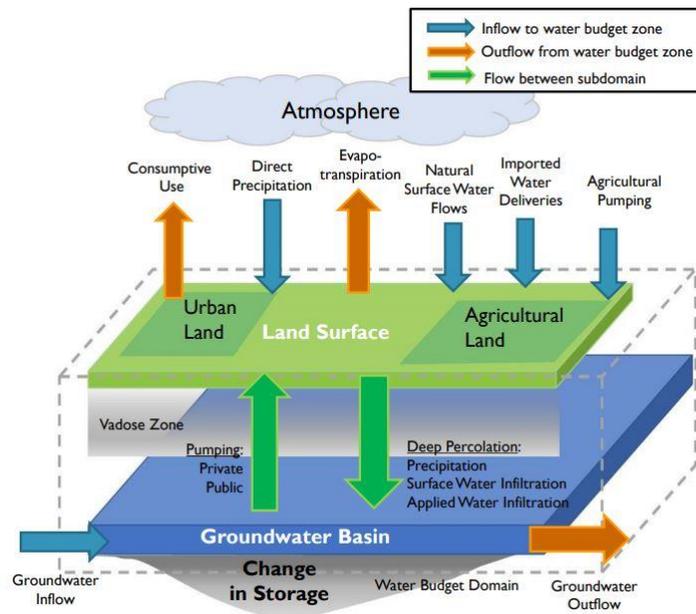
Public Comment

A representative from DWR commented that it expects an alternative plan decision to be posted shortly.

WATER BUDGET

Bennett Brooks, CBI, and John Fio, EKI, introduced EKI's water budget presentation by emphasizing that the results are preliminary and that GSA representatives should flag areas where they can provide data to reduce uncertainty in modeling results.

EKI presented **EKI Technical Presentation #9** ([link](#)). Fio reminded the Working Group that the water budget is required by SGMA and is a way to quantify groundwater inputs and outputs to the subbasin, as well as storage.



The water budget will quantify conditions for three periods: current (2015-2018), historical (1999-2018), and projected (estimated 50-year future baseline conditions). The preliminary water budget utilizes data in the data management system (DMS) to make estimates, and Fio detailed the sources of all the required components.

Check List/Status	Components Required to Calculate WB
<input checked="" type="checkbox"/>	Land use summary
<input checked="" type="checkbox"/>	Rainfall data
<input checked="" type="checkbox"/>	Evapotranspiration data
<input checked="" type="checkbox"/>	Pumpage data
<input checked="" type="checkbox"/>	Surface water diversions
<input checked="" type="checkbox"/>	Imported water totals

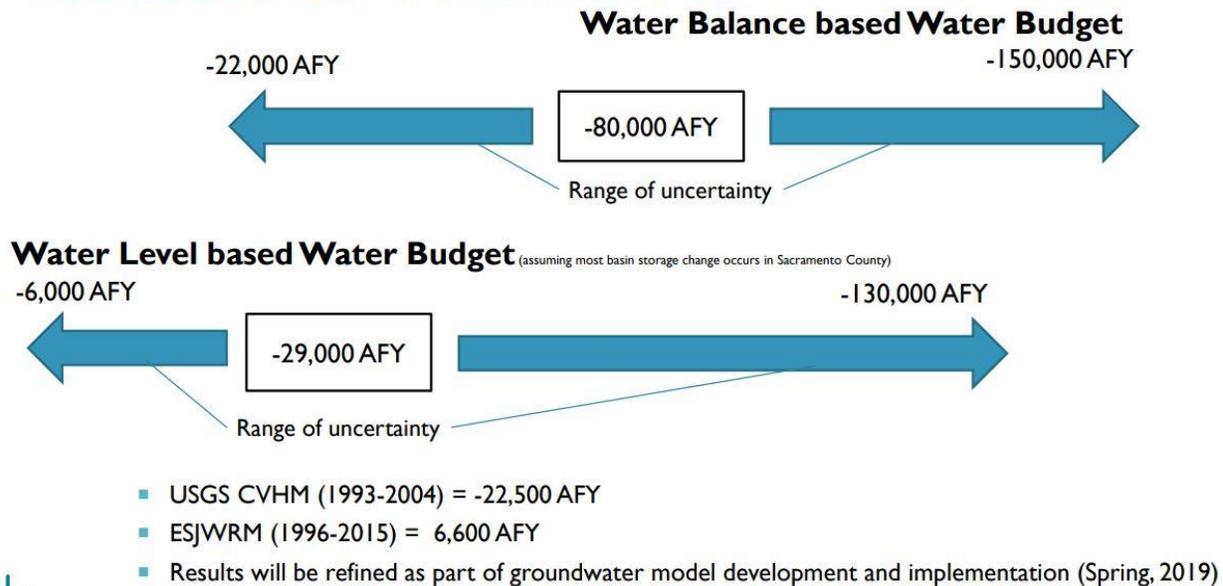
The early work on the water budget returned the following preliminary results:

- Estimated subsurface flows range from **24,000 acre-feet per year (AFY)** to **-87,000 AFY**
- Estimated annual average storage change of **-80,000 AFY**

The water level-based storage change estimate showed:

- Statistically significant downward trends in Sacramento County; Median water level trend of -0.5 ft/yr. No consistent trend in Amador County.
- Storage change of **-29,000 AFY**, with uncertainty leading to a range of -6,000 to -130,000 AFY.

WATER BUDGET COMPARISONS



Fio asked that GSAs assist with data refinement and verification for the following data sets:

- Cosumnes Subbasin specific climate data
 - Rainfall stations (JVID, others?)
 - ETo (OHWD, others?)
- Water Demand and Pumping (estimates and/or verification)
 - Assumed application efficiency
 - Demand estimates by land use type (e.g., application rates)
 - Metered pumpage (by season, irrigation event, etc.)
- Semi-ag pumping estimates and verification
- Rural residential pumping Sacramento County
 - Per acre water use rate.
 - Residential area (map or acres) in Clay and Herald census designated places.
- Rural residential pumping Amador County
 - Per acre water use rate.
 - Rural areas.
- Surface water diversion data
 - Pre 2009 data
 - Verify reported values and inferred area of use
 - JVID data for Jackson Creek

Discussion – Water Budget:

- A GSA representative asked that EKI overlay GSA boundaries on the land use map.

- A GSA representative asked that EKI rename the “native vegetation” category to “naturally occurring.”
- A GSA representative commented that historical data on which lands are irrigated with surface water should be incorporated. Fio responded that this would be appropriate later, when finer scale analysis is being completed, and asked that GSAs provide this data to EKI. The GSA representative advocated for including this data gathering task in the Prop. 68 grant application.
- Rodney Fricke, Sacramento County, suggested a possible data set that would help refine rainfall data. A GSA representative also suggested requesting rainfall data from a grape grower and those commissioned by TV stations to collect data.
- Fio discussed the importance of quantifying reductions in runoff as a result of storage in stock ponds.

Next steps – Water Budget:

- EKI will develop a prioritized list of info needed from GSAs (highest priority, secondary data needs; GSA-specific requests).
- GSAs will forward data based on EKI’s request.

Specific data needs identified during the meeting include:

- GSAs to review and verify or revise land use data and irrigation source (EKI/WF provide detailed land use overlay to support GSA feedback)
- Mike Wackman to follow with Galt ID on EBMUD data
- GSAs to provide localized rainfall source data
- Amador to provide, if possible and relevant, (1) Mokelumne diversion data, (2) PG&E climate data
- Water Forum to work with Clay to develop information on land acreage by residential property owner
- The Water Forum may meet with Clay Water District representatives to map the ~27 parcels in Clay WD.

There were no comments from members of the public.

PROPOSITION 68 – GRANT APPLICATION DEVELOPMENT

A subgroup of GSA representatives and the planning team met on June 26, 2019 to develop recommendations for the Cosumnes Working Group about the Cosumnes Subbasin’s approach to the Proposition 68 grant application (**meeting notes** are available at this [link](#)). Tom Gohring, Water Forum, **presented** ([link](#)) the outcomes of this meeting.

Gohring explained that the small group of GSA representatives that met to discuss the Proposition 68 grant application reached consensus on the following points, for consideration by the Working Group:

- The planning group recommends that the Working Group accept \$25,000 from Sacramento Flood Control Agency (SAFCA) to support grant proposal development, with the stipulation that SAFCA would not have decision-making power over the project;
- EKI agreed to prepare the application;

- The group recommends developing a Prop. 68 scope based on six tasks: all five tasks suggested by EKI, plus a task to define de minimis/characteristic water use for ag-res.

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PROP 68 - PROPOSED TASKS

Task/Project	Outcome	Benefit	Relative Cost
Install and monitor meters on cooperative agricultural-residential water wells (domestic use)	Measured groundwater extractions by agricultural-residential areas	Basin specific estimate of agricultural-residential water use.	\$50,000 – \$100,000
Identification/Verification of GDEs <ul style="list-style-type: none"> • Aerial photo analysis • Field verification 	Field verified distribution and composition of GDEs	<ul style="list-style-type: none"> • Confirm shallow groundwater areas • Map areas of ecological interest • Identify GW monitoring needs • Improved HCM and GC reliability 	\$50,000 - \$100,000
Isotopic Recharge Study <ul style="list-style-type: none"> • Analyze select surface water samples • Analyze select well water samples • Analyze rainfall samples 	<ul style="list-style-type: none"> • Isotopic signature for Cosumnes River recharge and local rainfall • Isotopic signature for groundwater representing variable mixtures of local rainfall and river recharge. 	<ul style="list-style-type: none"> • Improved understanding of surface water and groundwater interactions • Delineate recharge areas and primary recharge sources • Enhance the HCM and WB 	\$75,000- \$100,000
Install monitoring wells at key distances and depths from the Cosumnes River	<ul style="list-style-type: none"> • Measured depth distribution of interconnected surface water and groundwater response to well extractions • Establish SGMA compliant monitoring wells 	<ul style="list-style-type: none"> • Potential addition to the monitoring network • Reliable use of groundwater levels as proxy for depletion of interconnected surface water • Enhanced accuracy of the HCM, GC and WB • High quality data for sustainability indicators (Lowering GW Levels, Degraded Quality, etc.) 	\$200,000
Geophysical studies <ul style="list-style-type: none"> • Map additional transects, adjacent to rivers, creeks and Folsom South Canal Service area. • Validate using borehole information from DMS 	<ul style="list-style-type: none"> • Extrapolated subsurface conditions between boreholes and adjacent to surface water features 	<ul style="list-style-type: none"> • Increase HCM reliability by better characterization of water-bearing and non-water bearing zones • Improved quantification of interconnected surface water and groundwater • Inform selection of new well sites 	\$75,000- \$200,000
Incorporate new recharge and interconnected surface water and groundwater data into groundwater-flow model	Improved modeling capabilities through: <ul style="list-style-type: none"> • Refined representation of recharge • Improved water table characterization • Aquifer properties informed by geophysical data • Calibration targets based on wells near river 	Increased model reliability for evaluating: <ul style="list-style-type: none"> • Pumping impacts on Cosumnes River flows • Movement and fate of intentional recharge • Effectiveness of conjunctive use projects (e.g. Flood-MAR) 	\$100,000 - \$300,000
Total			\$550,000-\$1,000,000

Brooks and Gohring also asked that the Working Group consider which entity should contract with EKI to prepare the application. OHWD and the Water Forum each expressed willingness in the planning meeting; however, the Water Forum noted at the Working Group meeting that it be would required to put the proposal drafting out to bid, which would likely add a delay (see below).

Discussion – Prop. 68 Grant Application Development:

- The Working Group agreed with the recommendations of the planning meeting team and will move forward with the tasks outlined and cost share with SAFCA.
- John Fio, EKI, explained that \$25,000 would likely not be sufficient funding for EKI to develop a grant application for all six or seven tasks. When asked what tasks Fio would recommend prioritizing, he answered geophysical studies, GDE-focused studies, isotopic recharge studies, modeling and/or metering.
- Gohring explained that the Water Forum, as part of the City of Sacramento, is required to go through a competitive bidding process which could delay the contract. OHWD is exempted from competitive bidding requirement for contracts under \$30,000, making it a more ideal entity to serve as contract manager. SRCD also offered to serve as contract entity if needed.

Decisions and Next Steps – Prop. 68 Grant Application Development:

- EKI is to use existing funding to advance a grant application as far as possible focusing on geophysical studies, GDE-focused studies, and isotopic recharge studies while exploring options to fund additional work.
- The Working Group reached consensus that OHWD would serve as the contract entity to pay EKI to prepare the grant, pending OHWD board approval and confirmation of its ability to move forward with a contract over \$25,000 without going out to bid. If OHWD is unable to administer the grant, whichever entity does not have a bid requirement will be the second choice for contract administrator.

PROPOSITION 68 – GRANT PROPOSAL APPROACH

The Working Group discussed the planning group's recommendation ([link](#)) to use both Water Forum and SAFCA funds as cost share and bridge funding. If a GSA serves as grant administrator, SAFCA has offered to help with cash flow issues (to cover the gap between paying EKI and DWR reimbursement).

The Working Group also reviewed planning group recommendations regarding which entities should be considered as candidates to administer the Prop 68 contract. The planning group recommends a Cosumnes Subbasin GSA, the Southeast Sacramento County Agricultural Water Authority (SSCAWA), or another entity to serve as contract administrator.

Discussion – Prop. 68 Grant Proposal Approach:

- John Lowrie, Water Forum, shared that the Water Forum could shift excess work being done on Prop. 1 grant administration to cover cost-share needs associated with Prop. 68. He also suggested that in the future, GSA in-kind contributions could be represented as cost-sharing funds.
- Working Group participants support exploring the use of SAFCA and Water Forum funds as a cost share and bridge, with the stipulation that SAFCA would not have creative control over development of the Proposition 68 grant proposal.
- While the option of Sacramento County as a grant administrator was discussed and strongly supported by at least one GSA (SRCD), a County representative voiced strong doubts that the County has the capacity to administer the Prop. 68 grant given its existing grant administration responsibilities. However, Sacramento County agreed to further investigate options for the County serving as grant administrator and report back at the August Working Group meeting. An SRCD representative advocated for Sacramento County to remain on the list of GSAs to be considered as grant administrators.
- SRCD proposed holding a workshop to learn more about geophysical studies. SRCD representatives already reached out to Rob Gailey and Jeremy Wire about presenting at a workshop. Working Group participants agreed that the workshop would be a helpful way to become more informed about potential for geophysical studies as part of the Prop. 68 grant proposal. The Water Forum accepted SRCD's invitation to facilitate the workshop.

Next Steps - Prop. 68 Grant Proposal Approach:

- A team consisting of Barbara Washburn, Austin Miller, Jay Schneider, Linda Dorn, Mark Stretars, Darrell Evensen, Kat Perkins and Tom Gohring will organize a geophysical workshop.

- At the August Working Group meeting, participants will further discuss cost share and contract administration for the Prop. 68 grant proposal.

Public Comment – Prop. 68 Grant Proposal Approach: A member of the public commented that they thought the workshop was a good idea and that the Working Group should work to ensure that the information presented is as unbiased and accessible as possible.

NEXT MEETING

The Working Group will next meet in person on Wednesday, August 21, 2019 at the Galt Police Department Community Room, 455 Industrial Drive, Galt, CA. The Working Group will meet from 8:30 am to 10:00 am, followed by a geophysical workshop from 10:00-12:00; the Working Group will then resume its meeting from 12:00-1:00 pm.

MEETING PARTICIPANTS

Darrel Evenson, Amador County Groundwater Management Authority
Gene Mancebo, Amador County Groundwater Management Authority
Gary Thomas, Amador County Groundwater Management Authority
Herb Garms, Sloughhouse Resource Conservation District
Austin Miller, Sloughhouse Resource Conservation District
Jay Schneider, Sloughhouse Resource Conservation District
Barbara Washburn, Sloughhouse Resource Conservation District
Mike Wackman, Omochumne-Hartnell Water District
Mark Stretars, Omochumne-Hartnell Water District
Leland Schneider, Omochumne-Hartnell Water District
Mark Clarkson, City of Galt
Michael Selling, City of Galt
Sue Wohle, Clay Water District
Rick Wohle, Clay Water District
Kerry Schmitz, Sacramento County
Rodney Fricke, Sacramento County
Linda Dorn, Sacramento County
John Fio, EKI
Anona Dutton, EKI (phone)
Bennett Brooks, CBI
Julia Golomb, CBI (phone)
Tom Gohring, Water Forum
John Lowrie, Water Forum
Katherine Perkins, Water Forum

Additionally, members of the public and DWR attended the meeting.

GLOSSARY

Below is a list of commonly used terms:

CBI	Consensus Building Institute - The organization that facilitates SGMA implementation in the Cosumnes Subbasin
CoSANA	A groundwater model being developed by Woodard & Curran which covers the Cosumnes, South American and North American subbasins.
DWR	California Department of Water Resources
EKI	The firm that currently serves as independent technical consultant for the Cosumnes Subbasin
Galt ID	Galt Irrigation District (link) - One of the seven GSAs in the Cosumnes Subbasin
GSA	Groundwater Sustainability Agency
GSP	Groundwater Sustainability Plan
OHWD	Omochumne-Hartnell Water District (link) - One of the seven GSAs in the Cosumnes Subbasin
QAQC	Quality Assurance and Quality Control Plan (link)
RFP	Request for Proposal
RFQ	Request for Qualification
Prop. 1	Proposition 1
SGMA	California Sustainable Groundwater Management Act (link)
SRCD	Sloughouse Resource Conservation District - One of the seven GSAs in the Cosumnes Subbasin
SSCWA	Southeast Sacramento County Agricultural Water Authority (link)
TAC	Cosumnes Subbasin Technical Advisory Committee – An advisory body, with representatives from each of the seven GSAs, that develops recommendations for approval by the Working Group.
WF	Sacramento Water Forum (link)

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.