EASTERN SAN JOAQUIN GROUNDWATER AUTHORITY

ADVISORY COMMITTEE MEETING

AGENDA

Wednesday, July 11, 2018
9:00 a.m. – 10:30 a.m.

San Joaquin County – Robert J. Cabral Agricultural Center
2101 E. Earhart Avenue – Assembly Room #1, Stockton, California

I. **Call to Order/Pledge of Allegiance & Safety Announcement/Introductions**

II. **SCHEDULED ITEMS** – ***Presentation materials to be posted on ESJGroundwater.org and emailed prior to the meeting. Copies of presentation materials will be available at the meeting.***

A. Discussion /Action Items:

1. Approval of Minutes of June 13, 2018 (See Attached)
2. Minimum Thresholds
3. Projected Water Budget (Update on Assumptions)
4. Hydrogeologic Conceptual Model Discussion
5. Water Accounting Framework Approach
6. Schedule Recap

B. Informational Items:

1. June 12, 2018, Email and Letter from Mary Elizabeth, Sierra Club/Delta-Sierra Group, "Comments for the Technical Advisory Committee and Eastern San Joaquin Groundwater Authority"

III. **Public Comment (non-agendized items)**

IV. **Future Agenda Items**

V. **Adjournment**

Next Regular Meeting
August 8, 2018 at 9:00 a.m.
San Joaquin County - Robert J. Cabral Agricultural Center
2101 E. Earhart Ave., Assembly Rm. #1, Stockton, California

Action may be taken on any item

Agendas and Minutes may also be found at http://www.ESJGroundwater.org
Note: If you need disability-related modification or accommodation in order to participate in this meeting, please contact San Joaquin County Public Works Water Resources Staff at (209) 468-3089 at least 48 hours prior to the start of the meeting.

EASTERN SAN JOAQUIN GROUNDWATER AUTHORITY
Advisory Committee Meeting Minutes
June 13, 2018

I. Call to Order/Pledge of Allegiance & Safety Announcement/Roll Call

The Eastern San Joaquin Groundwater Authority (GWA) Advisory Committee meeting was convened by Ms. Carolyn Lott at 9:04 a.m., on June 13, 2018, at the Robert J. Cabral Agricultural Center, 2101 E. Earhart Ave. Stockton, CA. Following the Pledge of Allegiance, the required safety information was provided.

In attendance were the following Advisory Committee Members: Michael Bolzowski, George Biagi, Reid Roberts, Greg Gibson, Lance Roberts, Elba Mijango, Mel Lytle, Peter Martin, Dave Fletcher, Mike Henry, Emily Sheldon, Kris Balaji, Scot Moody, Peter Rietkerk, and Doug Heberle.

II. SCHEDULED ITEMS

A. Discussion Items:

1. Approval of Minutes of May 9, 2018

Mr. Mike Henry approved, and Mr. David Fletcher seconded the approval of the May 9, 2018 meeting minutes.

2. Discussion of Minimum Thresholds and Undesirable Results for Sustainability Indicators

Ms. Alyson Watson (Woodard & Curran) led a discussion of Minimum Thresholds.

Discussion Related to Groundwater Levels:

Mr. Mike Henry indicated that he would like to see the waterways superimposed on the map for clarity on well locations. Ms. Watson also indicated that a zoomed version for each GSA will be made available for orientation. Mr. Ali Taghavi (Woodard & Curran) noted that the groundwater elevation maps are based on elevation data collected, it is not an output from the model. Mr. Peter Rietkerk noted that the groundwater levels in the southern parts of the south county have not fluctuated. Since then, they have seen small declines in groundwater, but those levels might not be an undesirable result. Ms. Watson reiterated that this is why the consultant team will work individually with each GSA to confirm the proposed minimum thresholds.

Mr. Greg Gibson asked who was doing the monitoring for CASGEM. Mr. Brandon Nakagawa, Water Resources Coordinator, San Joaquin County – Department of Public Works, answered that it is the County, EBMUD, or Stockton/Lodi. Mr. Gibson indicated that he thinks there are local wells that are not included and would like to know how deep the wells are. Mr. Bill Brewster (DWR) noted that data is available on the SGMA Data Viewer, which is a new tool to view CASGEM and voluntary data. Stakeholders can also use it to access hydrographs and well construction information. Additionally, Mr. Brewster asked if there is consideration between aquifers or just spatial locations. He noted that there are shallow aquifers with domestic wells and deeper aquifers for larger municipal wells. In some cases, you may see different minimum thresholds depending on the aquifer. Ms. Watson indicated that this has not yet been considered but will be driven by undesirable results. Mr. Mike Henry asked if that consideration would be made at that individual level. Ms. Watson clarified that a minimum threshold should be identified for each well within the monitoring network.

Mr. Lytle provided a historical perspective on 1992 levels, indicating that the low point was 1992 and the high point was 1986. Mr. Lytle noted that he thinks there needs to be a basin-wide threshold in order to avoid confusion and help the boundaries between GSAs get resolved. Ms. Watson answered that the conversations need to happen first with GSAs to understand their threshold needs, then this would be looked at together.

Ms. Mary Elizabeth (Sierra Club) asked if the meetings with individual GSAs would be noticed or just working with staff and Board. Ms. Watson answered that the intent is to be working with staff and these meetings will not be noticed. Once analysis is ready, it will come to the Board.

Discussion Related to Groundwater Storage:
Ms. Yolanda Park (Catholic Charities of the Diocese of Stockton) asked how long of a drought the storage could maintain. Ms. Watson indicated that it could last for centuries but extraction would be the challenge. Mr. Lytle noted that the plot is interesting and needs to relate to the idea of deepening wells. He indicated that the groundwater basin is such that there are various lenses, and as you deepen, the yield decreases. Even though the water might be available, it may potentially not be available for use. A member of the public asked a clarification question on the graph. It was indicated that the layers are cumulative, adding to 53 MAF.

Discussion Related to Sea Water intrusion:
Ms. Mijango asked if more information could be provided on the Water Quality sustainability indicator. Ms. Watson noted that it will be covered in the next sustainability indicator segment and at the next meeting.

Discussion Related to Degraded Water Quality:
Mr. Gibson asked if there is any consideration for manmade salinity plumes. He indicated that there is a superfund site in Lathrop and noted that it could also be introduced from agricultural practices. Ms. Watson responded that there is a need to look at manmade salinity. Ms. Mijango noted that some of the salinity points shown are outside of the Subbasin and asked how much we are coordinating outside the basin with respect to water quality. Ms. Watson answered that we are looking into subsurface flows for boundary conditions and that there is more coordination planned with neighboring basins.

3. Model Recap (Historical Water Budget)
Mr. Taghavi gave a recap of the model and updates. The model is near final calibration, and as moving forward, uncertainties will be evaluated as they arise.

4. Baseline Water Budget
Mr. Taghavi presented the Baseline Water Budget. He noted that the plan is to extend to 50 years of hydrology. Mr. Paul Wells (DWR) noted that 50 years is required in the Water Code. Mr. Gibson commented on the water budget, indicating that what is reflected in the UWMP does not provide good data on industrial users or agricultural users. He asked which estimates were used for groundwater pumping. Mr. Taghavi answered that industrial water use has not been included separately yet and that the data was requested. He further indicated that GPCD is incorporated into the UWMP numbers but that they will be refined. Mr. Gibson indicated that Simplot uses groundwater for their process and that Sharp Army Depot historically had a well. Mr. Taghavi indicated that recycled water is not explicitly in the baseline. Mr. Gibson noted that agricultural users could use groundwater, surface water, or recycled water.

5. Future Water Budget
Mr. Taghavi presented on the Future Water Budget. Ms. Carolyn Lott clarified that the GSP needs to be updated every five years and the assumptions for growth could be adjusted in the future. Mr. Mike Henry asked where the data came from that did not have an UWMP. Sara Miller (Woodard & Curran) noted that the data from San Joaquin County Government Data for unincorporated areas was utilized.
Mr. Nakagawa indicated the issue of dry-grazed agricultural land to irrigated agriculture. He asked if there are water rights-driven scenarios that can be run with the model. For example, what if every inch of ground was planted with high water-use crops, or very low demand? Mr. Taghavi answered that there is an opportunity and flexibility for running different scenarios for assumptions with water use. Mr. Gibson

indicated that Glass plant has their own wells but will now go on City water after previously using their own water. He noted that he wants to make sure that transfer in supply sources is captured.

6. Schedule Recap

Ms. Alyson Watson presented topics to be covered at the next meeting.

B. Informational Items:

III. Public Comment (non-agendized items):

Ms. Mary Elizabeth indicated that more time was needed to review materials before the meeting. She also indicated that the website was down this morning. She indicated that if someone is going to review or submit written comments, more time is needed for reviewing the material. She asked for at least 72 hours to review material that will be presented so there can be more thoughtful questions. Ms. Carolyn Lott noted that the team is working toward making those improvements.

IV. Future Agenda Items:

No discussion took place.

V. Adjournment:

The meeting was closed at 10:29 am.

Next Regular Meeting: July 11, 2018 at 9:00 a.m.
San Joaquin County - Robert J. Cabral Agricultural Center, 2101 E. Earhart Ave., Assembly Rm. #1, Stockton, CA

Eastern San Joaquin Groundwater Authority

ADVISORY COMMITTEE

Sign-In Sheet

June 13, 2018

INITIAL	AGENCY	MEMBER
MB	California Water Service Company	Bolzowski, Michael
GB	Central Delta Water Agency	Biagi, George
M	Central San Joaquin Water Conservation District	Roberts, Reid
GG	City of Lathrop	Gibson, Greg
LR	City of Lodi	Roberts, Lance
EM	City of Manteca	Mijango, Elba
M	City of Stockton	Lytle, Mel
PM	Eastside San Joaquin GSA	Martin, Peter
DF	Linden County Water District	Fletcher, David
MH	Lockeford Community Services District	Henry, Mike
	North San Joaquin Water Conservation District	Flinn, Tom
ES	Oakdale Irrigation District	Sheldon, Emily
KW	San Joaquin County	Balaji, Kris
	Stockton East Water District	Moody, Scot
DMK	South San Joaquin GSA	Rietkerk, Peter
	Woodbridge Irrigation District GSA	Heberle, Doug

OTHER INTERESTED PARTIES		
NAME	AGENCY	EMAIL
C. Lott	Cardno Consulting	carolynlott@sbcglobal.net
Alyson Watson	Woodard & Curran	awatson@woodardcurran.com
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Alicia Connelly	SJC PW Dept	
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Yolanda Park	Catholic Charities	ypark@ccstockton.org
Fritz Buchman	SJ County	
Paul Wells	CA DWR	

ATTACHMENT II
B.1.

Villalpando, Kelly

From:	Mary Elizabeth <mebeth@outlook.com>
Sent:	Tuesday, June 12, 2018 6:11 AM
To:	ESJGroundwater; Paul.wells@water.ca.gov; Coreen Weintraub; jclary@cleanwater.org; Restore the Delta; ypark@ccstockton.org; Jane Wagner-Tyack; Dfries.audubon@gmail.com; colin@ejcw.org; editor@recordnet.com; DSG-EXCOM-LISTSERV
Subject:	ESJ Subbasin Model and Water Budget 061218 DSG
Attachments:	DSG Model Water Budget 061218 final.pdf

Attached are my comments for the Technical Advisory Committee and Eastern San Joaquin Groundwater Authority. I plan to attend the June 12, 2018 Stakeholder Committee meeting and the June 13, 2018 Technical Advisory Committee and Groundwater Authority meetings.
Sincerely,
Mary Elizabeth M.S., R.E.H.S
Delta Sierra Group Conservation Chair
Sierra Club

SIERRA CLUB
FOUNDED 1892

Delta-Sierra Group
Mother Lode Chapter
P.O. Box 9258, Stockton CA 95208

Eastern San Joaquin Groundwater Authority
P. O. Box 1810
Stockton, CA 95201

11 June 2018

Re: Model and Water Budget

The Sierra Club Water has adopted a water policy to promote proper management for a healthful and aesthetically pleasing natural environment. The policy calls for thorough water inventories including historic water yields and uses, with priority where substantial demands are anticipated. The Eastern San Joaquin Subbasin is a high priority basin which is critically overdrafted requiring that managers of the resource, the Eastern San Joaquin Groundwater Authority, develop a groundwater sustainability plan by January 2020 that must contain four main components:

1. A description of the plan area and groundwater basin setting (including an assessment of current and future groundwater conditions) and a **water budget**.
2. Sustainability goal which must avoid all six undesirable results
3. Projects and management actions that will achieve the community's sustainability goal, and
4. A monitoring plan that will measure progress over time.

I began asking for model and water budget information in 2017, continuing by email in February and April 2018 and was told that water budget information was not available for public review. On May 8, 2018 at 10:47 AM a pdf of the presentation of the model and water budget was sent out to interested parties on the ESJGA email list. On May 9, 2018 the Eastern San Joaquin Groundwater Authority unanimously approved the motion: approve of the use of the groundwater model in support of the development of the GSP, which include efforts to verify calibration with specific water agencies that have been identified. The model and water budget which was approved did not include references and descriptions of the source of information used.

May 9, 2018 Presentation Water Budget Summary
We were informed that the Model Development was open and transparent with the following Stakeholder Participation:

- California Water Services
- Calaveras County Water District
- Central Delta
- DWR North Central District
- Escalon, City of
- Lathrop, City of
- Linden County Water District
- Lockeford Comm. Services District
- Lodi, City of
- Manteca, City of
- North San Joaquin Water Conservation District
- Oakdale Irrigation District
- Ripon, City of
- San Joaquin County
- South San Joaquin Irrigation District
- Stanislaus County
- Stockton, City of
- Stockton East Water District
- Woodbridge Irrigation District

This list does not include many of the SGMA identified stakeholders, general public, domestic well owners, public water systems, environmental interests, the federal government, California Native American tribes and disadvantaged communities.

We were informed that the Integrated Water Flow Model (IWFM) used is a public domain model developed and maintained by the California Department of Water Resources and has the same model platform as C2VSim. The model includes land-surface processes, groundwater flow, streamflow, physical systems integration and water budgets. Of concern is that details were missing about how the summary values were derived and the sources of data. Also, cropping patterns have changed considerably since 2015 as reflected in the recent increased numbers of permanent crops seen within the basin. The model's ability to capture this crop distribution change was not mentioned nor were acreages by crop type presented. We were informed that 63 wells were selected from 160 calibration wells and that 20 wells were used for statistical analysis. Descriptions of these wells or locations were not specified.

Questions and Request for Information

1. What is the actual water demand and source for each GSA area?
2. What are the boundary conditions for the 20 subregions or 17 GSA areas?
3. Why were SOI boundaries used as reference for cities?
4. What are the biggest groundwater gains and losses in our basin (top and bottom 20%)
5. What proportion of the groundwater wells are deeper than 500 feet and what fraction of the total pumping do these wells represent?
6. What portion is provided by individual domestic wells and/or irrigation wells (not associated with GSA entity)?
7. What are the data sources for water budget and model?
8. Provide summary well information and GSA location for the 160 calibrations wells 1995-2015, 63 selected and 20 used for statistical analysis.
9. Where in the Subbasin are the wells located that are most aligned with the model and where are the wells that deviate significantly from the model projections? What are some possible reasons if a pattern observed.
10. What are the land use assumptions for each GSA area?
11. What are the cropping patterns for each GSA area?
12. What were the categories used to get the estimated average annual groundwater budget?
13. How did the model perform when projecting conditions observed in 2016 and 2017?
14. How does the model include projected effects of climate change?
15. Can the model be used to perform a vulnerability analysis specifically relating to human and ecological communities that may be affected by management decisions, such as domestic well depths and species habitat, and groundwater-dependent ecosystem locations.

Thank you for your assistance and we are looking forward to reviewing the information requested.

Sincerely,

Mary Elizabeth M.S., R.E.H.S.
Delta-Sierra Group Conservation Chair
Sierra Club
Melizabeth.sierra@gmail.com