

Glenn Groundwater Authority

Groundwater Sustainability Agency

PO Box 351, Willows, CA 95988 | 530.934.6501

Board of Directors Meeting Materials

February 8, 2021 | 1:30 PM

LOCATION: Teleconference

Pursuant to Governor Newsom's Executive Order N-29-20 this meeting will be conducted by teleconference. The meeting can be accessed via telephone at **+1 (517) 317-3122** or by computer, smartphone, or tablet at:

<https://global.gotomeeting.com/join/850393973>

Meeting Access Code: 580-393-973

1. CALL TO ORDER

The Chairperson will call the meeting to order.

2. ROLL CALL

Roll call will be conducted.

3. APPROVAL OF MINUTES

- a. *Approval of meeting minutes from January 11, 2021.

Draft meeting minutes are attached.

Attachment

- Meeting minutes from January 11, 2021

Glenn Groundwater Authority

Groundwater Sustainability Agency

PO Box 351, Willows, CA 95988 | 530.934.6501

Meeting Minutes

Glenn Groundwater Authority Board of Directors

January 11, 2021 | 1:30 pm

LOCATION: Teleconference

Pursuant to Governor Newsom's Executive Orders N-29-20 this meeting was conducted by teleconference. The meeting was accessible via telephone, computer, smartphone or tablet.

Director Members Present:	Alternate/2 nd Alternate Directors	Agency Representing:
Grant Carmon	X Tom Arnold	County of Glenn
X Bruce Roundy	Pete Carr	City of Orland
	Ed Vonasek (2 nd)	City of Orland
X Gary Hansen	X Evan Markey	City of Willows
George Nerli	X Leslie Nerli	Glide Water District
X John Amaro	Thad Bettner	Glenn-Colusa Irrigation District
X Charles Schonauer	X Emil Cavagnolo	Orland-Artois Water District
	X Andrea Jones (2 nd)	Orland-Artois Water District
X Randy Hansen	Wade Danley	Kanawha Water District
	Michael Alves (2 nd)	Kanawha Water District
X Mark Lohse	Seth Fiack	Monroeville Water District
X Gary Enos	Lance Boyd	Princeton-Codora-Glenn Irrigation District/ Provident Irrigation District

Others in attendance:

Lisa Hunter, GGA/Glenn County; Valerie Kincaid, GGA Counsel; Jaime Lely; David Kehn, CalWater/GGA TAC; Joshua Dowell; Mary Fahey, CGA; Byron Clark, Davids Engineering, Inc.; Mathew Jones; Arne Gustafson; Don Bills, GGA TAC; Jenny Marr, DWR; Jessica Boyt; Mariana Rivera-Torres, CBI; Ryan Luster, TNC

1. CALL TO ORDER

John Amaro called the meeting to order at 1:30 pm.

2. ROLL CALL

Roll call was taken and indicated above.

3. APPROVAL OF MINUTES

- a. *Approval of meeting minutes from December 15, 2020.

The meeting minutes from December 15, 2020 were approved as presented.

Motion: Gary Hansen, Second: Gary Enos, Vote: Unanimous

Roll Call Vote

Bruce Roundy: AYE

Gary Hansen: AYE

John Amaro: AYE

Charles Schonauer: AYE

Randy Hansen: AYE

Mark Lohse: AYE
Gary Enos: AYE
Tom Arnold: AYE
Leslie Nerli: AYE

4. PERIOD OF PUBLIC COMMENT

None.

5. INTER-BASIN COORDINATION UPDATE

- a. Receive a presentation on Inter-basin Coordination efforts in the Northern Sacramento Valley.

Mariana Rivera-Torres from the Consensus Building Institute gave a presentation on the inter-basin coordination efforts in the Northern Sacramento Valley. She indicated these efforts include eleven subbasins within the region and highlighted four types of coordination: general coordination, technical coordination, conflict resolution process, and voluntary agreement. The participants indicated desired outcomes including technical coordination on cross-boundary flow, stream-aquifer interactions, and water budgets. The technical coordination has begun with information-sharing resources and compiling information. Future work may include coordination on GSP topics, process for identifying differences and resolving conflicts and making recommendations to the GSAs regarding voluntary agreement(s). Staff and consulting teams have recently focused efforts on preliminary findings from the information-sharing template and regional outreach and engagement strategies. Materials from these efforts can be found on the website hosted by Butte County. It was acknowledged that the subbasins are at different stages in GSP development and not all technical information is prepared and available for comparisons. The technical teams from neighboring basins will meet as necessary to compare and communicate technical topics. Key findings will be shared with GSAs and the public.

Mr. Amaro noted the GGA has had questions on these activities recently and the information provided was helpful.

6. STAFF UPDATES

Lisa Hunter indicated a Program Manger Report will be distributed later in the week. Ms. Hunter reminded Board members that FPPC Form 700s are due April 1. She noted that if members were due for ethics training, Golden State Risk Management is providing a compliant training on January 21. The multi-completion monitoring well being installed in the Corning Subbasin continues to move forward and a logistical site visit was completed recently. These efforts are funded by DWR through their Technical Support Services program. The Sustainable Groundwater Management Watershed Coordinator grant, submitted by the Colusa County RCD on behalf of the subbasin was not selected for funding. There was nearly \$7.5 million requested and only \$1.5 million available. Five projects out of 26 were funded. She also mentioned she will be providing an update to the Orland Rotary in the next month.

7. FINANCIAL REPORT

- a. *Review and accept Monthly Activities Report.
b. *Review and consider approval of claims.

There was a motion to approve the Monthly Activities Report.

Motion: Charles Schonauer, Second: Randy Hansen, Vote: 8-0 (one member- no audio)

Roll Call Vote

Bruce Roundy: NO AUDIO
Gary Hansen: AYE
John Amaro: AYE
Charles Schonauer: AYE
Randy Hansen: AYE
Mark Lohse: AYE
Gary Enos: AYE
Tom Arnold: AYE
Leslie Nerli: AYE

There was a motion to approve the claims.

Motion: Gary Enos, Second: Gary Hansen, Vote: 8-0 (one member- no audio)

Roll Call Vote

Bruce Roundy: NO AUDIO
Gary Hansen: AYE
John Amaro: AYE
Charles Schonauer: AYE
Randy Hansen: AYE
Mark Lohse: AYE
Gary Enos: AYE
Tom Arnold: AYE
Leslie Nerli: AYE

8. FISCAL YEAR 2019/2020 ANNUAL AUDIT

- a. Receive presentation of Draft *Glenn Groundwater Authority Groundwater Sustainability Agency Financial Statements and Supplementary Information Year Ended June 30, 2020*.

Mr. Amaro stated that the draft report was reviewed at the December 15, 2020 meeting. This item was postponed until the February 2021 meeting due to the final report not being available.

9. *AUTHORIZE SUBMITTAL OF 2020 MULTI-COUNTY AGENCY BIENNIAL NOTICE OF REVIEW OF THE GGA BOARD'S CONFLICT OF INTEREST CODE

Ms. Hunter introduced that this item is being brought to the Board for consideration later than normal due to some confusion in the process. Valerie Kincaid mentioned that normally an agency within multiple counties sends the requested form to the FPPC, while an agency within a single county submits the form to the County. She suggested completing the notice and submitting to the FPPC and then work with the FPPC to determine if that is the appropriate channel. She recommended checking the first box indicating the agency has reviewed its conflict of interest code and it is still valid based on the additional criteria listed. Ms. Hunter asked if the statement on the first page indicating the statements will be retained by the Glenn County Department of Agriculture on behalf of the agency would need to be updated more formally through this process. Ms. Kincaid felt the statement is not a substantive change that could be updated through notification to the FPPC after the Board approves the change at a Board meeting.

A motion was made to authorize submittal of the 2020 Multi-County Agency Biennial Notice of Review of the GGA Board's Conflict of Interest Code with no changes.

Motion: Gary Hansen, Second: Charles Schonauer, Vote: Unanimous

Roll Call Vote

Bruce Roundy: AYE

Gary Hansen: AYE

John Amaro: AYE

Charles Schonauer: AYE

Randy Hansen: AYE

Mark Lohse: AYE

Gary Enos: AYE

Tom Arnold: AYE

Leslie Nerli: AYE

10. THE NATURE CONSERVANCY AND DEPARTMENT OF WATER RESOURCES MULTI-BENEFIT RECHARGE PROJECT

- a. Receive a presentation on The Nature Conservancy and Department of Water Resources Multi-Benefit Recharge Project.

(This item was taken after item 12.) Ryan Luster with The Nature Conservancy (TNC) and Jenny Marr with DWR gave a presentation on the Sacramento Valley Flood-MAR Multi-Benefit Recharge Pilot Project. DWR published a White Paper on Flood-MAR in 2018 to look at opportunities and challenges to implement Flood-MAR type projects which look at multi-benefit recharge. It is a scalable strategy, which is one advantage to this type of project. TNC and DWR have partnered to look at how the multi-benefit recharge program through TNC could incorporate flood risk reduction as another potential benefit. They are interested in identifying pilot study sites for this project.

Ryan Luster mentioned TNC has been working with CGA on a multi-benefit recharge project which just completed its second season. They contract with private landowners to put about four inches of water on fields during particular times to attract migratory shorebirds. The target timeframe is mid-July to October. The spring window is mid-March through April. This also creates recharge opportunities so areas with groundwater declines are desired areas to pilot the study. The current program is testing mechanisms such as outreach and monitoring. This new two-year program is intended to target the first two benefits (shorebird habitat and groundwater recharge) and add the third benefit of flood risk reduction utilizing a flood nexus. He stated that row crop fields are eligible, but orchards are not. TNC contracts directly with the landowner and covers all costs including field work to prepare the site and monitoring equipment. The pilot project is being implemented in four counties (Yolo, Colusa, Glenn, Tehama).

Ms. Nerli asked if they have approached people with grounds set aside or already developed for habitat? Mr. Luster indicated that if the GSA is interested in working with them, the GSA could help decide which areas would benefit most, but all land is on the table. Ms. Nerli suggesting TNC provide a list of areas they are looking at to help inform the group. Mr. Luster answered they could work with Ms. Hunter to narrow down areas.

Don Bills asked if the team has evaluated or considered excessive ET. Mr. Luster stated instrumentation is used to collect data. Davids Engineering is currently contracted to install the equipment and analyze the data to determine how much recharge is occurring which accounts for ET.

Mr. Amaro asked if they have had good participation in the previous work. Mr. Luster said they are currently in the process of working with the GSAs for this project, but in the CGA project, which is a bit different, the participation has been successful.

Ms. Hunter stated a two-page flyer is included in the meeting packet. A more condensed version could be made available if there is interest.

11. COLUSA SUBBASIN GROUNDWATER SUSTAINABILITY PLAN

- a. Receive update on Plan development, activities, and outreach.
- b. Receive update on GSP Development Grants (Proposition 1 and Proposition 68).
- c. Receive update on Project Agreements.
- d. *Consider approval of amended Colusa Subbasin Sustainability Goal.

Ms. Hunter mentioned the Davids Engineering memo will be distributed when it is available. The memo provides good updates on current work. The TAC discussions have focused on water budgets sub-areas, sustainable management criteria (SMC), and management areas (MAs). She mentioned there is much interest in MAs, particularly in the CGA area and recommended having an item to focus on MA discussions at the next Board meeting. The SGMA-series public outreach meeting summaries are being prepared and will be posted to the website once complete. Social media continues to be updated. The Colusa Subbasin Logo and other branding is being finalized. The Projects and Management Actions solicitation form has been launched. The Well Monitoring Pilot Program flyer will be distributed today and the program workshop will be on January 25 at 4:00 pm.

Ms. Hunter noted the invoices and progress report for the **GSP Development Grants** is being prepared for submittal this month. The GGA will also be invoicing the CGA for the project costs to be included in the grant invoice.

Project Agreements include the two agreements with Davids Engineering. The Hydrogeologic Conceptual Model and Water Budget Project is approximately 95% complete with about \$17,000 remaining out of \$378,000. The draft section should be available soon. There were no updates for the GSP Development project. Approximately \$84,000 has been expended.

Mr. Amaro stated a few words were left out of the **Colusa Subbasin Sustainability Goal** approved at the last Board meeting and so it needs to be re-addressed.

There was a motion to approve the **Colusa Subbasin Sustainability Goal** with the proposed changes.

The sustainability goal for the Colusa Subbasin GSP is to maintain, through a cooperative and partnered approach, locally managed sustainable groundwater resources to preserve, and enhance the economic viability, social well-being and culture of all Beneficial Uses and Users, without experiencing undesirable results.

Motion: Leslie Nerli, Second: Charles Schonauer, Vote: Unanimous

Roll Call Vote

Bruce Roundy: AYE

Gary Hansen: AYE

John Amaro: AYE

Charles Schonauer: AYE

Randy Hansen: AYE

Mark Lohse: AYE

Gary Enos: AYE

Tom Arnold: AYE

Leslie Nerli: AYE

12. *ELECT VICE CHAIRMAN TO SERVE THE REMAINDER OF THE 2020/2021 TERM

Mr. Amaro opened nominations for the vacancy of Vice Chairman. Leslie Nerli nominated Gary Hansen. The nomination was seconded by Gary Enos. Bruce Roundy nominated Chuck Schonauer. Mr. Schonauer declined the nomination. Tom Arnold commented that he would like to be considered for this position in the future and he would like to be involved. A roll call vote was conducted for the election of Gary Hansen for Vice Chairman.

Motion: Leslie Nerli, Second: Gary Enos, Vote: Unanimous

Roll Call Vote

Bruce Roundy: AYE

Gary Hansen: AYE

John Amaro: AYE

Charles Schonauer: AYE

Randy Hansen: AYE

Mark Lohse: AYE

Gary Enos: AYE

Tom Arnold: AYE

Leslie Nerli: AYE

13. EXECUTIVE COMMITTEE VACANCY

- a. *Consider appointing Executive Committee member to fill vacancy.

Mr. Amaro suggested having Gary Hansen, Vice Chairman, to fill the Executive Committee vacancy. There was some discussion on the procedure to fill the vacancy. Ms. Kincaid noted the bylaws state at the discretion of the board for permanent committees. There was no opposition to Mr. G. Hansen filling the vacancy and there were no other interested individuals to serve in that capacity. Mr. Amaro appointed Gary Hansen to fill the Executive Committee vacancy.

14. TECHNICAL ADVISORY COMMITTEE VACANCY

- b. *Consider nominations from board members and appoint Technical Advisory Committee member.

Mr. Amaro referred to the letter of interest provided by Don Bills who has property in Glenn County. No other nominations were received. Ms. Nerli stated she listened to the last TAC meeting and noted Ms. Bills made good comments and nominated Mr. Bills to fill the TAC vacancy. Bruce Roundy seconded the nomination and added he is qualified and interested in serving.

Gary Enos asked Mr. Bills to share a little bit about himself. Mr. Bills shared that he was born and raised in the Orland area and attended CSU, Chico where he received a BS in Earth Studies and graduate studies in hydrology and water quality. He worked extensively in the ag industry in junior high through college. He also worked for California Division of Forestry as a Fire Prevention Officer. He moved to Arizona and worked for the US Geological Survey Arizona Water Science Center as a hydrologist. He has spent forty years working on various aspects of hydrology in the southwest. He has experience in setting up and collecting information and water resource assessments as well as surface water-groundwater interaction and an EIR/EIS study on the Colorado River. He also highlighted work around geophysical studies and groundwater well development and tribal engagement. He also mentioned he currently resides in Arizona, but plans to move back to the Orland area in

the next few years. Mr. Schonauer shared his family has deep roots in the Orland community and were active members of the community.

A roll call vote was conducted for the appointment of Don Bills to the GGA Technical Advisory Committee.

Motion: Leslie Nerli, Second: Bruce Roundy, Vote: Unanimous

Roll Call Vote

Bruce Roundy: AYE

Gary Hansen: AYE

John Amaro: AYE

Charles Schonauer: AYE

Randy Hansen: AYE

Mark Lohse: AYE

Gary Enos: AYE

Tom Arnold: AYE

Leslie Nerli: AYE

Mr. Amaro asked if there needed to be discussion regarding Brandon Davison's interest in serving as an ex-officio member. Ms. Hunter stated he serves on the CGA TAC and had asked a question if he held the same position in the GGA TAC. Ms. Hunter will follow up with Mr. Davison and bring back an item if necessary.

15. COMMITTEE UPDATES

- a. Executive Committee
 - i. CGA/GGA Joint Executive Committee
- b. Stakeholder Engagement Committee
- c. Technical Advisory Committee

Mr. Amaro stated the **Executive Committee** has not met since the last GGA Board meeting and has no additional updates.

The **Stakeholder Engagement Committee** has not met and has nothing to report.

Mr. Amaro called the Board's attention to the **Technical Advisory Committee** materials in the meeting packet. David Kehn, the TAC representative to the GGA Board, gave a report on TAC activities focusing on water budget, sustainable management criteria (SMC), management areas (MA), and reporting out to the GGA Board. The meeting packet contains detailed information. For the water budget, a state-provided model is being used which is under development. Graphs are included in the packet and understanding the water budgets will be an important part of GSP development. Three of the six sustainability indicators will rely on groundwater levels. The consultants presented different ways to set minimum thresholds (MT) and measurable objectives (MO). Modeling for potential surface water supply changes will continue to determine if those changes will impact the MTs and MOs. There was some discussion on the economic impacts of setting levels which will be further developed. There was discussion on MAs and whether or not they are needed. Some felt there is more local control with MAs while others felt it was more paperwork and the objectives could be accomplished without MAs. There was discussion on pros and cons of MAs. Mr. Kehn also noted they have not yet gotten to making formal recommendations to the GSAs, but have provided guidance based on local knowledge and technical expertise. The policy decisions will be brought to the Boards as recommendations.

Ms. Nerli summarized that different levels can be set without MAs or there could be, for example, a Colusa area and a Glenn area. Mr. Kehn clarified if you were to have county areas, those would be MAs; however, the MTs do not need to be uniform throughout the subbasin. Emil Cavagnolo confirmed that is his understanding as well. Ms. Kincaid clarified that many times, MAs are developed because there is a need for different MTs and MOs. Undesirable Results can be defined without MAs and in different ways. If one area has significantly different thresholds than a neighboring area (a lot of fluctuation) an MA may be desired. Even if the same threshold is set, for example 20%, that provides a different number at each monitoring point. MAs require more monitoring requirements, but can provide flexibility in enforcement. Ms. Nerli also mentioned the basin is judged as a whole and it is the entire basin's responsibility.

Byron Clark clarified the way the consultant team envisions establishing MT for each monitoring point, with or without MA, which will not be uniform throughout the basin. Undesirable Results need to be consistent throughout the basin. To define Undesirable Results, it will include some exceedance of MT over a certain number of wells over a specified period of time. There is flexibility in how they are defined. He also noted groundwater does not respect jurisdictional boundaries and paying for projects would likely need a benefits study.

Mr. Roundy appreciated the materials included in the meeting packet. He asked where subsidence and crop types (permanent, row, rice, nut) come into play and their implications for groundwater. Mr. Kehn stated actual measurements will be used for subsidence rather than groundwater levels. Crop types are accounted for in water budgets. Mr. Amaro commented that surface water may not be as available in the future and crop changes have been occurring. Crops that serve for some recharge have converted to crops that not recharging. Is that being considered? Mr. Kehn answered that to the extent it is updated in the model, it is accounted for. The model captures the overall trends and the model has been refined on local scale; however, it is unlikely that it is updated for current year. Mr. Amaro stated some areas may be adversely affected by these changes and it should be tracked and considered. Ms. Kincaid mentioned it will be important to review and ground-truth the current and historic water budgets. Mr. Schonauer noted the dry conditions and potential for well to go dry this year. Mr. Clark stated the draft water budgets were presented at the public workshops on December 9 and 10, which are available online.

16. MEMBER REPORTS AND COMMENTS

Tom Arnold mentioned he and Supervisor Carmen are looking forward to participating in this process.

17. NEXT MEETING

The next regular meeting is scheduled for February 8, 2021 at 1:30 pm.

18. ADJOURN

The meeting was adjourned at 3:17 pm.

4. PERIOD OF PUBLIC COMMENT

Members of the public are encouraged to address the GGA Board of Directors on items relevant to the GGA. Public comments are limited to no more than 5 minutes. No action may be taken on public comments.

5. STAFF UPDATES

The program manager will provide brief status updates. Reminders and/or clarifications may also be made at this time.

6. FINANCIAL REPORT

- a. *Review and accept Monthly Activities Report.
- b. *Review and consider approval of claims.

The Monthly Activities Report and Claims Summary are attached.

Attachments

- Monthly Activities Report
- Claims Summary
- Budget to Actuals

Monthly Activities Report

Glenn Groundwater Authority
 Monthly Activities Report
 December 2020

Description	Amount
Beginning Balance	\$ 661,935.16
Revenue	
DP CLOUSA GROUNDWATER AUTHORITY INV 20-GGA-20	\$ 93,162.50
PY DIRECT ASSMT 12/15/20 (PENALTIES/COST DELQ TAXES)	\$ 4.40
PY DIRECT ASSMT 12/15/20 (PENALTIES/COST DELQ TAXES)	\$ 3.93
INTEREST	\$ 2,492.36
PY DIRECT ASSMT 12/15/20 (SPECIAL ASSESSMENT)	\$ 44.55
CY SECURED APPN 12/10/20 (SPECIAL ASSESSMENT)	\$ 299,595.19
Total Revenue	
	\$ 395,302.93
Expenses	
Davids Engineering Inv 1178.03-4196	\$ 7,136.00
O'Laughlin & Paris LLP	\$ 1,260.00
Provost & Pritchard Inv 81501	\$ 643.10
ADMINISTRATIVE EXPENSE (CY SECURED APPN)	\$ 2,609.72
A-87 COST	\$ 220.75
Total Expenses	
	\$ 11,869.57
Ending Balance	\$ 1,045,368.52

Monthly Activities Report

Glenn Groundwater Authority
 Monthly Activities Report
 January 2021 DRAFT

Description	Amount
Beginning Balance	\$ 1,045,368.52
Revenue	
PY DIRECT ASMTS 1/20/21 (PENALTIES/COST DELQ TAXES)	\$ 45.63
PY DIRECT ASMTS 1/20/21 (PENALTIES/COST DELQ TAXES)	\$ 46.93
INTEREST (CY SEC 2ND QTR INT 20-21)	\$ 306.06
PY DIRECT ASMTS 1/20/21 (SPECIAL ASSESSMENT)	\$ 457.16
Total Revenue	\$ 855.78
Expenses	
Davids Engineering Inv 1178.01-4147	\$ 2,630.50
Davids Engineering Inv 1178.01-4283	\$ 3,030.25
Davids Engineering Inv 1178.03-4248	\$ 27,991.00
Davids Engineering Inv 1178.03-4291	\$ 30,637.75
Olaughlin & Paris LLP Inv. 1253	\$ 595.00
Davids Engineering Inv 1178.01-4195	\$ 11,200.00
A-87 COST	\$ 220.75
Total Expenses	\$ 76,305.25
Ending Balance	\$ 969,919.05

Claims Summary

Glenn Groundwater Authority
Invoices to be paid
Meeting Date: February 8, 2021

Invoice Date	Invoice Number	Description	Amount
12/31/2020	1178.03-4347	Davids Engineering, Inc. (GSP Development)	\$ 45,313.00
1/20/2021	21-WR-01	Glenn County- Admin Support (Oct-Dec 2020)	\$ 19,414.79
1/26/2021	2731746	CliftonLarsonAllen, LLP	\$ 9,000.00
2/1/2021	1324	O'Laughlin & Paris LLP	\$ 1,855.00
Total			\$ 75,582.79

Glenn Groundwater Authority Budget

FY 2020/2021 FINAL APPROVED 6/15/20

	Current Approved	Actual through Dec 2020	Remaining Budget	% Budget Remaining
REVENUES				
Grant Revenue				
Other		\$ -	\$ -	
Total Grants	-	\$ -	\$ -	
Other Government Agencies				
Colusa Groundwater Authority*	1,024,401	\$ 205,563.46	\$ 818,837.50	80%
Other		\$ -	\$ -	
Total Other Government Agencies	1,024,401	\$ 205,563.46	\$ 818,837.50	80%
Assessments				
Property Related Fee Per Acre (\$1.50/ac)	427,786	\$ 300,073.44	\$ 127,712.56	30%
Well Head Fee	-	\$ -	\$ -	
Extraction Fee	-	\$ -	\$ -	
Other	-	\$ -	\$ -	
Total Assessments	427,786	\$ 300,073.44	\$ 127,712.56	30%
Other				
Interest	3,000	\$ 5,103.84	\$ (2,103.84)	-70%
Total Other	\$ 3,000	\$ 5,103.84	\$ (2,103.84)	-70%
TOTAL REVENUES	1,455,187	\$ 510,740.74	\$ 944,446.22	65%
EXPENSES				
Administration- Contracted County Services	120,000	\$ 16,492.16	\$ 103,507.84	86%
Program Administration Support	-	\$ -	\$ -	
Legal Services	120,000	\$ 11,385.00	\$ 108,615.00	91%
Certified Public Accountant (Yearly Audits)	10,000	\$ -	\$ 10,000.00	100%
JPA Insurance	1,800	\$ 1,761.75	\$ 38.25	2%
County Bookkeeper	5,000	\$ 1,324.50	\$ 3,675.50	74%
GSP Development/Implementation	960,000	\$ 59,226.75	\$ 900,773.25	94%
Long Term Funding Options	-	\$ -	\$ -	
Professional Services	35,000	\$ 2,340.90	\$ 32,659.10	93%
Board Expenses	2,000	\$ -	\$ 2,000.00	100%
Special Department Expenses	25,000	\$ -	\$ 25,000.00	100%
Legal Notices	1,000	\$ -	\$ 1,000.00	100%
County Tax Roll Fee	5,000	\$ 2,609.72	\$ 2,390.28	48%
Contingency/Reserve	57,986	\$ -	\$ 57,986.00	100%
TOTAL EXPENSES	1,342,786	\$ 95,140.78	\$ 1,247,645.22	93%

Note: A-87 Cost allocated to County Bookkeeper line item
 * Includes deferred inflow (adopted budget \$912,000)

7. FISCAL YEAR 2019/2020 ANNUAL AUDIT

- a. **Accept Glenn Groundwater Authority Groundwater Sustainability Agency Financial Statements and Supplementary Information Year Ended June 30, 2020.*

On June 15, 2020, the GGA Board approved the CliftonLarsonAllen LLP (CLA) Engagement Letter to provide services to complete the Fiscal Year 2019-2020 Annual Audit. Staff coordinated with CLA staff throughout the audit process. On December 15, 2020, Joey Judson of CLA provided a presentation on the draft *Glenn Groundwater Authority Groundwater Sustainability Agency Financial Statements and Supplementary Information Year Ended June 30, 2020* report. Staff provided input on the Management's Discussion and Analysis portions of the report. The final report is attached.

Attachment

- *Glenn Groundwater Authority Groundwater Sustainability Agency Financial Statements and Supplementary Information Year Ended June 30, 2020*

**GLENN GROUNDWATER AUTHORITY
GROUNDWATER SUSTAINABILITY AGENCY**

**FINANCIAL STATEMENTS AND
SUPPLEMENTARY INFORMATION**

YEAR ENDED JUNE 30, 2020

DRAFT REPORT
FOR DISCUSSION
PURPOSES ONLY



CLAconnect.com

**WEALTH ADVISORY
OUTSOURCING
AUDIT, TAX, AND
CONSULTING**
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**GLENN GROUNDWATER AUTHORITY
GROUNDWATER SUSTAINABILITY AGENCY
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**GLENN GROUNDWATER AUTHORITY
GROUNDWATER SUSTAINABILITY AGENCY
LIST OF DIRECTORS
YEAR ENDED JUNE 30, 2020**

NAME	AGENCY	POSITION
John Viegas	County of Glenn	Director
Bruce Roundy	City of Orland	Director
Gary Hansen	City of Willows	Director
George Nerli	Glide Water District	Director
John Amaro	Glenn-Colusa Irrigation District	Director
Charles Schonauer	Orland-Artois Water District	Director
Randy Hansen	Kanawha Water District	Director
Gary Enos	Princeton-Codora-Glenn Irrigation District/Provident Irrigation District	Director
Mark Lohse	Monroeville Water District	Director
Vince Minto	County of Glenn	Alternate
Pete Carr	City of Orland	Alternate
Evan Markey	Cal-Water Local Manager, City of Willows	Alternate
Leslie Nerli	Glide Water District	Alternate
Thaddeus Bettner	Glenn-Colusa Irrigation District	Alternate
Emil Cavagnolo	Orland-Artois Water District	Alternate
Wade Danley	Kanawha Water District	Alternate
Lance Boyd	Princeton-Codora-Glenn Irrigation District/Provident Irrigation District	Alternate
Seth Fiack	Monroeville Water District	Alternate
Ed Vonasek	City of Orland	2nd Alternate
Andrea Jones	Orland-Artois Water District	2nd Alternate
Michael Alves	Kanawha Water District	2nd Alternate



INDEPENDENT AUDITORS' REPORT

Board of Directors
Glenn Groundwater Authority
Groundwater Sustainability Agency
Willows, California

Report on the Financial Statements

We have audited the accompanying financial statements of the governmental activities and the major fund, of the Glenn Groundwater Authority Groundwater Sustainability Agency (the Authority), as of and for the year ended June 30, 2020, and the related notes to the financial statements, which collectively comprise the Authority's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the governmental activities and the major fund of the Authority, as of June 30, 2020, and the respective changes in financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and budgetary comparison schedule on pages 3 and 17 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated January 22, 2021 on our consideration of the Authority's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Authority's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Authority's internal control over financial reporting and compliance.

CliftonLarsonAllen LLP

Roseville, California
January 22, 2021

REQUIRED SUPPLEMENTARY INFORMATION

DRAFT REPORT
FOR DISCUSSION
PURPOSES ONLY

**GLENN GROUNDWATER AUTHORITY
GROUNDWATER SUSTAINABILITY AGENCY
MANAGEMENT'S DISCUSSION AND ANALYSIS
JUNE 30, 2020**

This section of Glenn Groundwater Authority Groundwater Sustainability Agency's (the Authority), annual financial report provides an overview of the Authority's financial activities for the fiscal year ended June 30, 2020. This section should be read in conjunction with the Authority's financial statements, which immediately follow this section.

FINANCIAL HIGHLIGHTS

Key financial highlights for the fiscal year include the following:

- The assets of the Authority exceeded its liabilities at June 30, 2020 by \$764,700.
- The Authority's total assets increased by \$405,741.

AUTHORITY HIGHLIGHTS

- Began collecting Property Related Fee by placing the fee on the Glenn County tax bills (\$1.61 per acre)
- Groundwater Sustainability Plan (GSP) Projects in process
 - Hydrogeologic Conceptual Model and Water Budget Project
 - Colusa Subbasin GSP Development Project
- In May 2020 the Colusa Groundwater Authority was awarded a Proposition 68 grant on behalf of the Colusa Subbasin, which reimburses some GSP Development project costs.
- Continuing obligations for agency business and public participation (Board meetings, public outreach events, coordination with neighboring agencies, etc.)

OVERVIEW OF THE FINANCIAL STATEMENTS

This discussion and analysis is intended to serve as an introduction to the Authority's basic financial statements. The Authority's basic financial statements are comprised of three components, government - wide financial statements, fund financial statements, and notes to the basic financial statements. This report also includes additional required supplementary information in addition to the basic financial statements.

REQUIRED FINANCIAL STATEMENTS

Government-Wide Financial Statements are designed to provide readers with a broad overview of Authority finances, in a manner similar to a private-sector business.

The *Statement of Net Position* include information on the Authority's assets and liabilities and provide information about the nature and amounts of investments in resources (assets) and the obligations to Authority creditors (liabilities). Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position of the Authority is improving or deteriorating.

**GLENN GROUNDWATER AUTHORITY
GROUNDWATER SUSTAINABILITY AGENCY
MANAGEMENT'S DISCUSSION AND ANALYSIS
JUNE 30, 2020**

REQUIRED FINANCIAL STATEMENTS (CONTINUED)

The *Statement of Activities* presents information showing how net position changed during the most recent fiscal year. All changes in net position are reported as soon as the underlying event giving rise to the change occurs, regardless of the timing of related cash flows. Thus, revenues and expenses are reported in this statement for some items that will result in cash flows in future fiscal periods (e.g., uncollected taxes and earned but unused vacation leave).

Both of these government-wide financial statements distinguish functions of the Authority that are principally supported by intergovernmental revenues (governmental activities). The governmental activities of the Authority are Groundwater Sustainability Agency activities in compliance with the Sustainable Groundwater Management Act and related groundwater sustainability activities. There are no business-type activities.

Fund Financial Statements are groupings of related accounts that are used to maintain control over resources that have been segregated for specific activities or objectives. The Authority, like other state and local governments, uses fund accounting to ensure and to demonstrate finance-related legal compliance. The Authority's fund is a *governmental fund*.

Governmental funds are used to account for essentially the same functions reported as governmental activities in the government-wide financial statements. However unlike the government-wide financial statements, governmental funds financial statements focus on near-term inflows and outflows of spendable resources, as well as of balances of spendable resources available at the end of the fiscal year. Such information may be useful in evaluating the Authority's near-term requirements. Because the focus of governmental funds is narrower than that of the government-wide financial statements, it is useful to compare the information presented for governmental funds with similar information presented for governmental activities in the government-wide financial statements. By doing so, readers may better understand the long-term impact of the government's near-term financing decisions. Both the governmental funds balance sheet and the governmental funds statement of revenues, expenditures, and changes in fund balances provide a reconciliation to facilitate comparison between governmental funds and governmental activities.

Notes to the Basic Financial Statements

The notes provide additional information that is essential to a full understanding of the data provided in the government-wide and fund financial statements. The notes to the basic financial statements can be found immediately following the basic financial statements.

Other Information

In addition to the basic financial statements and accompanying notes, this report presents certain required supplementary information concerning the Authority's budgetary comparative information for the general fund.

**GLENN GROUNDWATER AUTHORITY
GROUNDWATER SUSTAINABILITY AGENCY
MANAGEMENT'S DISCUSSION AND ANALYSIS
JUNE 30, 2020**

GOVERNMENT-WIDE FINANCIAL ANALYSIS

The *Statement of Net Position* provides information about the financial position of the Authority as a whole, including all assets and liabilities on the full accrual basis. Over time, increases or decreases in the Authority's net position may serve as one useful indicator of the Authority's overall financial position. In the case of the Authority, total assets exceeded liabilities by \$764,700 as of the close of the fiscal year. This amount is the total net position as of June 30, 2020.

AUTHORITY'S NET POSITION

	<u>2020</u>	<u>2019</u>	<u>\$ Change</u>	<u>% Change</u>
Assets				
Current assets	\$ 941,257	\$ 535,516	\$ 405,741	75.77%
Total assets	<u>941,257</u>	<u>535,516</u>	<u>405,741</u>	<u>75.77%</u>
Liabilities				
Current liabilities	176,557	58,148	118,409	203.63%
Total liabilities	<u>176,557</u>	<u>58,148</u>	<u>118,409</u>	<u>203.63%</u>
Net position				
Unrestricted	764,700	477,368	287,332	60.19%
Total net position	<u>\$ 764,700</u>	<u>\$ 477,368</u>	<u>\$ 287,332</u>	<u>60.19%</u>

The Authority's net position increased by \$287,332, primarily from an increase in revenues.

AUTHORITY'S CHANGES IN NET POSITION

	<u>2020</u>	<u>2019</u>	<u>\$ Change</u>	<u>% Change</u>
Program revenues				
Agency Contributions	\$ 10,000	\$ 386,548	\$ (376,548)	-97.41%
Intergovernmental Revenues	242,915	26,596	216,319	0.00%
Total program revenues	<u>252,915</u>	<u>413,144</u>	<u>(160,229)</u>	<u>-38.78%</u>
General revenues				
Interest Income	38,919	8,407	30,512	362.94%
Special Assessment	455,734	-	455,734	0.00%
Taxes	1,214	-	1,214	0.00%
Total general revenues	<u>495,867</u>	<u>8,407</u>	<u>487,460</u>	<u>5798.26%</u>
Total revenues	748,782	421,551	327,231	77.63%
Program expenses	<u>461,450</u>	<u>246,454</u>	<u>214,996</u>	<u>87.24%</u>
Change in net position	287,332	175,097	112,235	64.10%
Net position - beginning	<u>477,368</u>	<u>302,271</u>	<u>175,097</u>	<u>100.00%</u>
Net position - ending	<u>\$ 764,700</u>	<u>\$ 477,368</u>	<u>\$ 287,332</u>	<u>60.19%</u>

**GLENN GROUNDWATER AUTHORITY
GROUNDWATER SUSTAINABILITY AGENCY
MANAGEMENT'S DISCUSSION AND ANALYSIS
JUNE 30, 2020**

The increase in special assessment is due to the newly adopted property related fee being placed on the Glenn County tax rolls for collection and disbursement to the Authority. The decrease in agency contributions is attributable to the conclusion of member agency contributions as agreed upon in the Joint Powers Agreement. Expenses in the current year increased over the prior year due to increased Groundwater Sustainability Plan development tasks, increased professional services, and the first year of paying A-87 costs.

Government-Wide Financial Statements are presented on an “*economic resources*” measurement focus and on the accrual basis of accounting, which is similar to the accounting used by most private-sector companies. All of the current fiscal year's revenues and expenses are taken into account regardless of when cash is received or paid.

BUDGETARY HIGHLIGHTS

Total expenditures were \$45,498 under budget. Special department expenses were underspent.

ECONOMIC FACTORS AND NEXT YEAR'S BUDGET

A five-year estimated budget was developed during the Proposition 218 Property-Related Fee process in 2019 which will be used to guide setting the annual budget. Factors include estimating administrative costs, insurance, legal fees, professional services, Groundwater Sustainability Plan development costs (examples: technical support, public outreach, studies, writing the plan) including reimbursement of costs from grants when possible, and other related tasks.

REQUESTS FOR INFORMATION

This financial report is designed to provide a general overview for those who are interested in the Authority's financial position. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to: Program Manager, Glenn Groundwater Authority, 225 N. Tehama Street, Willows, CA 95988.

BASIC FINANCIAL STATEMENTS

DRAFT REPORT
FOR DISCUSSION
PURPOSES ONLY

**GLENN GROUNDWATER AUTHORITY
GROUNDWATER SUSTAINABILITY AGENCY
STATEMENT OF NET POSITION
JUNE 30, 2020**

ASSETS

Cash and Investments	\$ 815,176
Due from Other Governments	119,080
Interest Receivable	<u>7,001</u>
 Total Assets	 <u>941,257</u>

LIABILITIES

Accounts Payable	151,698
Due to Other Governments	<u>24,859</u>
 Total Liabilities	 <u>176,557</u>

NET POSITION

Unrestricted	<u>764,700</u>
 Total Net Position	 <u><u>\$ 764,700</u></u>

DRAFT REPORT
FOR DISCUSSION
PURPOSES ONLY

See accompanying Notes to Basic Financial Statements.

**GLENN GROUNDWATER AUTHORITY
GROUNDWATER SUSTAINABILITY AGENCY
STATEMENT OF ACTIVITIES
YEAR ENDED JUNE 30, 2020**

EXPENSES	
Professional Services	\$ 453,979
Office Expense	5,671
Insurance	1,800
Total Expenses	461,450
 PROGRAM REVENUES	
Agency Contributions	10,000
Intergovernmental	242,915
Net Program Revenues (Expenses)	(208,535)
 GENERAL REVENUES	
Special Assessment	455,734
Taxes	1,214
Interest Income	38,919
Total General Revenues	495,867
CHANGE IN NET POSITION	287,332
Net Position - Beginning of the Year	477,368
NET POSITION - END OF YEAR	\$ 764,700

DRAFT REPORT
FOR DISCUSSION
PURPOSES ONLY

See accompanying Notes to Basic Financial Statements.

**GLENN GROUNDWATER AUTHORITY
GROUNDWATER SUSTAINABILITY AGENCY
BALANCE SHEET – GOVERNMENTAL FUND
JUNE 30, 2020**

ASSETS

Cash and investments	\$	815,176
Due from Other Governments		119,080
Interest Receivable		<u>7,001</u>
 Total Assets	 \$	 <u><u>941,257</u></u>

**LIABILITIES, DEFERRED
INFLOWS OF RESOURCES
AND FUND BALANCES**

Liabilities:		
Accounts Payable		151,698
Due to Other Governments		<u>24,859</u>
Total Liabilities		176,557
Deferred Inflows of Resources:		
Unavailable Revenue		<u>112,401</u>
Fund Balance:		
Unassigned		<u>652,299</u>
 Total Liabilities, Deferred Inflows of Resources, and Fund Balance	 \$	 <u><u>941,257</u></u>

DRAFT REPORT
FOR DISCUSSION
PURPOSES ONLY

See accompanying Notes to Basic Financial Statements.

**GLENN GROUNDWATER AUTHORITY
GROUNDWATER SUSTAINABILITY AGENCY
RECONCILIATION OF THE GOVERNMENTAL FUNDS BALANCE SHEET TO THE
GOVERNMENT-WIDE STATEMENT OF NET POSITION – GOVERNMENTAL ACTIVITIES
JUNE 30, 2020**

Fund Balance - Total Governmental Fund: \$ 652,299

Amounts reported for governmental activities in the statement of net position are different because:

Receivables not collected during the availability period are deferred in the fund statements. 112,401

Net Position of Governmental Activities \$ 764,700

DRAFT REPORT
FOR DISCUSSION
PURPOSES ONLY

See accompanying Notes to Basic Financial Statements.

**GLENN GROUNDWATER AUTHORITY
GROUNDWATER SUSTAINABILITY AGENCY
STATEMENT OF REVENUES, EXPENDITURES, AND
CHANGES IN FUND BALANCES – GOVERNMENTAL FUND
YEAR ENDED JUNE 30, 2020**

REVENUES

Agency Contributions	\$ 10,000
Intergovernmental Revenue	130,514
Special Assessment	455,734
Taxes	1,214
Interest Income	38,919
	636,381
Total Revenues	636,381

EXPENDITURES

Professional Services	453,979
Office Expense	5,671
Insurance	1,800
	461,450
Total Expenditures	461,450

CHANGE IN FUND BALANCE

174,931

Fund Balance - Beginning of the Year

477,368

FUND BALANCE - END OF YEAR

\$ 652,299

DRAFT REPORT
FOR DISCUSSION
PURPOSES ONLY

See accompanying Notes to Basic Financial Statements.

**GLENN GROUNDWATER AUTHORITY
GROUNDWATER SUSTAINABILITY AGENCY
RECONCILIATION OF THE STATEMENT OF REVENUES, EXPENDITURES, AND
CHANGES IN FUND BALANCES – GOVERNMENTAL FUND TO THE GOVERNMENT-WIDE
STATEMENT OF ACTIVITIES – GOVERNMENTAL ACTIVITIES
YEAR ENDED JUNE 30, 2020**

Net Change to Fund Balance - Governmental Fund	\$	174,931
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Amounts reported for governmental activities in the statement of activities are different because:

Revenues in the statement of activities that do not provide current financial resources are not reported as revenue in the governmental fund.

112,401

Change in Net Position of Governmental Activities	\$	<u>287,332</u>
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287,332

DRAFT REPORT
FOR DISCUSSION
PURPOSES ONLY

See accompanying Notes to Basic Financial Statements.

**GLENN GROUNDWATER AUTHORITY
GROUNDWATER SUSTAINABILITY AGENCY
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020**

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

A. Reporting Entity

The Glenn Groundwater Authority Groundwater Sustainability Agency (the Authority) was created by forming a Joint Exercise of Powers Agreement, signed by nine local agencies, with the purpose of being a Groundwater Sustainability Agency for the Glenn County portion of the Colusa Subbasin, which is part of the Sacramento Valley Groundwater Basin. In 2019, the Monroeville Water District joined the Authority, bringing the total membership to ten local agencies.

The State of California under the Sustainable Groundwater Management Act (SGMA) law requires all lands within a high or medium priority designated groundwater basin to be covered by a Groundwater Sustainability Plan developed by Groundwater Sustainability Agencies that must be completed by January 31, 2022 in non-critically over drafted basins. These plans will require steps to achieve and maintain sustainability of groundwater conditions for all parts of the basins throughout California, and will potentially require data collection and management actions such as requiring meters, reporting of groundwater use, and a plan to recharge depleted aquifers.

Glenn Groundwater Authority Member Agencies include:

- City of Orland
- City of Willows
- County of Glenn
- Glenn-Colusa Irrigation District
- Glide Water District
- Kanawha Water District
- Monroeville Water District
- Orland-Artois Water District
- Princeton-Codora-Glenn Irrigation District
- Provident Irrigation District

The basic financial statements present information on the financial activities of the Authority. The financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America. The Governmental Accounting Standards Board (GASB) is the accepted standard-setting body for establishing governmental accounting and financial reporting principles. The more significant of the accounting policies are described below.

**GLENN GROUNDWATER AUTHORITY
GROUNDWATER SUSTAINABILITY AGENCY
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020**

B. Basis of Presentation and Accounting

Government-Wide Statements

The statement of net position and statement of activities display information about the primary government (the Authority). These statements include the financial activities of the overall Authority.

The statement of activities demonstrates the degree to which program expenses of a given function are offset by program revenues. Program expenses include direct expenses, which are clearly identifiable with a specific function, and allocated indirect expenses. Program revenues include Agency contributions that are restricted to meeting the operational or capital requirements of a particular program. Revenues that are not classified as program revenues are presented instead as general revenues.

The government-wide financial statements are reported using the economic resources measurement focus and the accrual basis of accounting. Revenues are recorded when earned and expenses are recorded when incurred, regardless of the timing of related cash flows. Nonexchange transactions, in which the Authority gives (or receives) value without directly receiving (or giving) equal value in exchange, include intergovernmental revenues. Revenues from grants, entitlements, and donations are recognized in the fiscal year in which all eligibility requirements have been satisfied.

Fund Financial Statements

The Authority is engaged in a single-governmental activity and has only a general fund. The governmental fund financial statements are reported using the current financial resources measurement focus and the modified accrual basis of accounting. Under this method, revenues are recognized when measurable and available (susceptible to accrual). Revenues are accrued when their receipt occurs within sixty days after the end of the accounting period so as to be measurable and available. Expenditures are generally recorded when a liability is incurred, as under accrual accounting.

C. Use of Estimates

The preparation of basic financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates.

D. Fund Balances – Governmental Fund Financial Statements

Beginning with the fiscal year 2018, the Authority implemented GASB Statement No. 54, *Fund Balance Reporting and Governmental Fund Type Definitions*. This statement provides more clearly defined fund balance categories to make the nature and extent of the constraints placed on a government's fund balance more transparent. The following classifications describe the relative strength of the spending constraints placed on the purposes for which resources can be used:

- Nonspendable fund balance – amounts that cannot be spent because they are either not spendable in form or legally or contractually required to remain intact.

**GLENN GROUNDWATER AUTHORITY
GROUNDWATER SUSTAINABILITY AGENCY
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020**

- Restricted fund balance – amounts with constraints placed on their use by those external to the Authority, including creditors, grantors, contributors or laws and regulations of other governments. It also includes constraints imposed by law through constitutional provisions or enabling legislation.
- Committed fund balance – amounts that can only be used for specific purposes determined by formal action of the Authority’s highest level of decision-making authority (the Authority) and that remain binding unless removed in the same manner. The underlying action that imposed the limitation needs to occur no later than the close of the reporting period.
- Assigned fund balance – amounts that are constrained by the Authority’s intent to be used for specific purposes. The intent can be established at either the highest level of decision making or by a body or an official designed for that purpose.
- Unassigned fund balance – the residual classification that includes amounts not contained in the other classifications.

The Authority’s governing board establishes, modifies, or rescinds fund balance commitments and assignments by passage of a resolution. When restricted and unrestricted resources are available for use, it is the Authority’s policy to use restricted resources first, followed by unrestricted committed, assigned, and unassigned resources as they are needed.

NOTE 2 CASH AND INVESTMENTS

Cash and investments at June 30, 2020 consisted of the following:

Cash in County Treasury	<u>\$815,176</u>
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The Authority maintains all of its cash and investments with the County of Glenn in an investment pool. On a quarterly basis, the Department of Finance allocates interest to participants based upon their average daily balances. Required disclosure information regarding categorization of investments and other deposit and investment risk disclosures can be found in the County’s financial statements. The County of Glenn’s financial statements may be obtained by contacting the County Glenn Department of Finance office at 516 W. Sycamore Street Willows, CA 95988.

GASB Statement No. 40 requires additional disclosures about a government’s deposits and investment risks that include credit risk, custodial risk, concentration risk, and interest rate risk. The Authority has no deposit or investment policy that addresses a specific type of risk.

**GLENN GROUNDWATER AUTHORITY
GROUNDWATER SUSTAINABILITY AGENCY
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020**

Required disclosures for the Authority's deposit and investment risks at June 30, 2020 were as follows:

Credit risk	Not rated
Custodial risk	Not applicable
Concentration of credit risk	Not applicable
Interest rate risk	1.92 years

Investments held in the County's investment pool are available on demand and are stated at cost plus accrued interest, which approximates fair value.

NOTE 3 RELATED PARTY TRANSACTIONS

The Authority's staff is under contract by Glenn County. During the fiscal year ended June 30, 2020, the Authority paid these departments \$95,447 for administrative services.

NOTE 4 RISK MANAGEMENT

The Authority is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets, errors and omissions and natural disasters. The Authority is covered from risk of loss by Golden State Risk Management Authority.

PROFIT REPORT
DISCUSSION
USES ONLY

REQUIRED SUPPLEMENTARY INFORMATION

DRAFT REPORT
FOR DISCUSSION
PURPOSES ONLY

**GLENN GROUNDWATER AUTHORITY
GROUNDWATER SUSTAINABILITY AGENCY
BUDGETARY COMPARISON SCHEDULE – GENERAL FUND
YEAR ENDED JUNE 30, 2020**

	Original Budget	Final Budget	Actual Amount	Variance with Final Budget
Revenues				
Agency Contributions	\$ -	\$ -	\$ 10,000	\$ 10,000
Intergovernmental Revenue	-	-	130,514	130,514
Special Assessment	458,552	506,948	455,734	(51,214)
Taxes	-	-	1,214	1,214
Use of Money and Property	-	-	38,919	38,919
Total Revenues	<u>458,552</u>	<u>506,948</u>	<u>636,381</u>	<u>129,433</u>
Expenditures				
Professional Services	338,752	433,964	453,979	(20,015)
Insurance	1,800	1,800	1,800	-
Special Department Expenses	118,000	71,184	-	71,184
Office Expense	-	-	5,671	(5,671)
Total Expenditures	<u>458,552</u>	<u>506,948</u>	<u>461,450</u>	<u>45,498</u>
EXCESS (DEFICIENCY) OF REVENUES OVER (UNDER) EXPENDITURES	<u>\$ -</u>	<u>\$ -</u>	174,931	<u>\$ 174,931</u>
Fund Balance - Beginning of the Year			<u>477,368</u>	
FUND BALANCE - END OF YEAR			<u>\$ 652,299</u>	

See accompanying Notes to Required Supplementary Information – Budget and Budgetary Reporting.

**GLENN GROUNDWATER AUTHORITY
GROUNDWATER SUSTAINABILITY AGENCY
NOTES TO THE REQUIRED SUPPLEMENTARY INFORMATION
YEAR ENDED JUNE 30, 2020**

NOTE 1 BUDGET AND BUDGETARY REPORTING

The Authority prepares and legally adopts a final budget on or before June 30 of each fiscal year. The Authority operation, commencing July 1, is governed by the proposed budget, adopted by the Board of Directors in June of the prior year.

After the budget is approved, the appropriations can be added to, subtracted from, or changed only by Authority resolution. All such changes must be within the revenues and reserves estimated as available in the final budget or within revised revenue estimates as approved by the Authority.

An operating budget is adopted each fiscal year on the modified accrual basis. Additionally, encumbrance accounting is utilized to assure effective budgetary control. Encumbrances outstanding at year-end represent the estimated amount of the expenditures ultimately to result if the unperformed contracts in process at year-end are completed or purchased commitments satisfied. Such year-end encumbrances are reported as reservations of fund balances and do not constitute expenditures or liabilities because the commitments will be honored during the subsequent year and included in the subsequent year's budget. Unencumbered appropriations lapse at year-end.

The legal level of budgetary control (the level on which expenditures may not legally exceed appropriations) is at the object level. Object category levels of expenditures are as follows: salaries and benefits, services and supplies, and other charges.

OTHER REPORT

DRAFT REPORT
FOR DISCUSSION
PURPOSES ONLY



**INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL
OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER
MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS
PERFORMED IN ACCORDANCE WITH *GOVERNMENT AUDITING STANDARDS***

Board of Directors
Glenn Groundwater Authority
Groundwater Sustainability Agency
Willows, California

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of Glenn Groundwater Authority Groundwater Sustainability Agency (the Authority) as of and for the year ended June 30, 2020, and the related notes to the financial statements, and have issued our report thereon dated January 22, 2021.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Authority's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Authority's internal control. Accordingly, we do not express an opinion on the effectiveness of the Authority's internal control over financial reporting.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Authority’s financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Authority’s internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity’s internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

CliftonLarsonAllen LLP

Roseville, California
January 22, 2021

PROFIT REPORT
PURPOSES ONLY

8. REQUEST EXTENSION TO GROUNDWATER SUSTAINABILITY PLAN DEADLINE

- a. *Consider approving a letter or directing Staff to draft a letter to the Governor requesting an extension to the January 31, 2022 deadline to submit the Groundwater Sustainability Plans for medium and high priority subbasins.

Limitations in public meetings, public participation, and engagement due to COVID-19 pandemic restrictions has led to challenges in obtaining stakeholder input and obtaining Board direction. At the December 2020 CGA Board meeting, the Board directed Staff to draft a letter to the Governor requesting an extension to the January 31, 2022 deadline to submit the Groundwater Sustainability Plan, and bring the letter to the Board for consideration at the January meeting. The CGA approved sending the letter at the January meeting and mailed a copy of the letter to the GGA (attached). The GGA may wish to consider sending a similar letter. The purpose of requesting an extension is to address the challenges noted above.

Attachment

- Colusa Groundwater Authority letter to Governor Newsom requesting GSP Extension

Colusa Groundwater Authority

Groundwater Sustainability Agency

100 Sunrise Blvd., Suite A | Colusa, CA 95932 | 530.458.7709

January 22, 2021

Governor Gavin Newsom
Governor's Office
State Capital
Sacramento, CA 95814

Re: Request for an Extension of the January 31, 2022 Deadline to Submit Groundwater Sustainability Plans

Dear Governor Newsom;

The Colusa Groundwater Authority Groundwater Sustainability Agency (CGA) is in the process of developing the Groundwater Sustainability Plan (GSP) for the Colusa Subbasin, in coordination with the Glenn Groundwater Authority. The CGA is also participating in GSP development in the Butte Subbasin.

The Sustainable Groundwater Management Act (SGMA) sets an extremely high bar for public engagement. We strongly agree that public outreach and stakeholder engagement are critical components to the GSP development process. Unfortunately, due to the COVID-19 pandemic, the CGA has not been able to provide the level of public engagement that we had planned. We have been restricted to holding public meetings and workshops on a virtual platform since March, 2020.

We have noticed a lack of public participation and a decline in substantive discussion since meetings have moved from in-person to a virtual platform. It has been particularly difficult to engage stakeholders in rural and disadvantaged communities throughout our 720,000 acre Subbasin.

The CGA is keeping on schedule to comply with the January 31, 2022 GSP submittal deadline, but we remain concerned that not all of our stakeholders are able to be engaged in this important process to the degree they deserve. Because of this, the CGA Board respectfully requests your consideration of appropriate administrative action to extend the GSP submittal deadline to January 31, 2023, for the GSAs in the non-

County of Colusa | City of Colusa | City of Williams | Colusa County Water District
Glenn Colusa Irrigation District | Princeton-Codora-Glenn Irrigation District / Provident Irrigation District
Maxwell Irrigation District / Westside Water District | Reclamation District 108 | Reclamation District 479
Colusa Drain Mutual Water Company | Private Pumper Representative 1 | Private Pumper Representative 2

Colusa Groundwater Authority

Groundwater Sustainability Agency

100 Sunrise Blvd., Suite A | Colusa, CA 95932 | 530.458.7709

critically overdrafted groundwater basins. We appreciate your consideration of our request and welcome the opportunity to speak to your administration about this important issue.

Sincerely,



Denise J. Carter
Chair, Colusa Groundwater Authority

Cc: Senator Jim Nielson
Assembly Member Cecilia Aguiar-Curry
Assembly Member James Gallagher
Taryn Ravazzini, CA Department of Water Resources
Michelle Dooley, CA Department of Water Resources, NRO
Paul Smith, Rural County Representatives of California (RCRC)
John Amaro, Chair, Glenn Groundwater Authority

County of Colusa | City of Colusa | City of Williams | Colusa County Water District
Glenn Colusa Irrigation District | Princeton-Codora-Glenn Irrigation District / Provident irrigation District
Maxwell Irrigation District / Westside Water District | Reclamation District 108 | Reclamation District 479
Colusa Drain Mutual Water Company | Private Pumper Representative 1 | Private Pumper Representative 2

9. COLUSA SUBBASIN GROUNDWATER SUSTAINABILTY PLAN

- a. Receive update on Plan development, activities, and outreach.
- b. Receive update on GSP Development Grants (Proposition 1 and Proposition 68).
- c. Receive update on Project Agreements.
- d. Receive an update on the Well Monitoring Pilot Program
- e. Discussion on Management Areas.

The Davids Engineering GSP Development Status Update Memo (January 21, 2021) is attached.

An important component of GSP development is the collection and consideration of public comments and input relating to the GSP. Public input is being tracked by the outreach team and is currently being compiled in an Administrative Record spreadsheet in order to provide regular updates to the Colusa Subbasin GSAs to consider during GSP development. The Administrative Record spreadsheet will be provided at Board meetings and Board feedback on these items will be documented as part of the GSP. The spreadsheet is being maintained and updated regularly and is housed online in a “Box” account which can be viewed at the following link:

<https://app.box.com/s/2w5ewrd7qmw3b8ngcslbg9wlsithey40>

GSP Development Grants

The Proposition 1 and Proposition 68 GSP development grants are managed by the CGA. GGA staff coordinates regularly with CGA staff on grant processes and to complete necessary documentation. Progress report and invoice 9 were submitted to DWR in January 2021. The invoice totaled \$118,175.75. DWR retains 10% of the invoice total, which will be reimburse after the successful completion of the grant terms. Currently, CGA bears the burden of holding the 10% retention while the GGA is reimburse the total amount relating to consultant work invoiced. Further discussion on this item may be brought to a future Board meeting.

Proposition 1 Grant Funds: \$1,000,000.00
Expended: \$484,420.32 (through December 2020- Invoice 9)
Remaining: \$515,579.68

Proposition 68 Grant Funds: \$999,600.00
Expended: \$5,667.75 (through December 2020- Invoice 9)
Remaining: \$993,932.25

Project Agreements

The GGA holds the agreements with Davids Engineering for two projects. Work from these projects are invoiced to CGA to include in the grant reimbursement requests (grant invoices). CGA reimburses the GGA after payment from DWR is received. Highlights of project work are included in the Davids Engineering GSP Development Status Update Memo (attached).

The Hydrogeologic Conceptual Model & Water Budget Project
Contract Amount: \$378,000.00
Expended: \$360,753.15
Remaining: \$17,246.85

Colusa Subbasin GSP Development Project
Contract Amount: \$1,261,400.00
Expended: \$129,355.75
Remaining: \$1,132,044.25

Well Monitoring Pilot Program

A brief update on program activities are included in the attached Davids Engineering GSP Development Status Update Memo. A public workshop was held January 25. The recording of the meeting can be found on the [Colusa Subbasin SGMA Facebook](#) page. The program flyer and application are attached and can also be found on the CGA and GGA websites. Additional updates may be provided.

Management Areas

Activities relating to Management areas discussions is included in the attached Davids Engineering GSP Development Status Update Memo. Also attached are relevant slides provided by John Ayres, Woodard and Curran and part of the CGA/GGA Joint TAC discussions. The remaining slides are included in the TAC updates section. Mary Fahey, CGA staff, provided an overview of key considerations discussed at the Joint TAC meeting to the CGA and is also included in the attachment. The CGA will be holding a Special Board meeting on February 17 to discuss the matter in detail. The GGA may wish to consider having a focused meeting if desired. Consultant support would be available for such a meeting. The TAC representative, staff, and legal counsel will facilitate this discussion and may provide additional updates.

Attachments

- Davids Engineering GSP Development Status Update Memo (January 21, 2021)
- Administrative Record Spreadsheet (Public Comments received on GSP development)
- Well Monitoring Pilot Program Flyer
- Well Monitoring Pilot Program Application
- Management Area slides and key considerations summary from the 1/8/21 Joint TAC discussion



*Specialists in Agricultural Water Management
Serving Stewards of Western Water since 1993*

Memorandum

To: Colusa Groundwater Authority, Glenn Groundwater Authority
From: Davids Engineering
Date: 1/21/2021
Subject: **GSP Development Status Update**

This memorandum provides brief summary of activities related to the HCM and Water Budget Project and GSP Development Project for the Colusa Subbasin. In addition to recent activities, upcoming activities are discussed.

Interbasin Coordination

In an effort to support consistent representation of interbasin flows and stream-aquifer interaction with neighboring basins, information from the draft historical water budget for the Colusa Subbasin was compiled and shared with a group led by the Consensus Building Institute (CBI) and the Butte County Department of Water and Resource Conservation (BCDWRC) regarding subsurface flows between subbasins and surface water-groundwater interaction along boundary streams. For the Colusa Subbasin, interbasin flows include the interface with the Corning Subbasin to the north, Butte and Sutter subbasins to the east, and Yolo Subbasin to the south. Boundary streams include Stony Creek to the north and the Sacramento River to the east. Early indications are that the models are generally consistent in the direction of flow between subbasins, though additional coordination is underway to ensure that the preliminary comparisons are based on consistent methodologies. It is anticipated that additional details will be made available as the water budget information in each basin is developed. Currently, the status of modeling and associated water budget information within each basin varies, and it is anticipated that the process to coordinate with neighboring basins will evolve as more definitive information becomes available to support comparison and potential refinements to ensure consistency in estimates of subsurface interbasin flows and stream-aquifer interaction within the region.

[Updated Information] During December, a meeting of the group was held on December 1, and follow up meetings were held with representatives of the Corning (December 15), Butte (December 15), and Yolo (December 16) subbasins. As part of follow up from the December 1 meeting, additional detail describing the timing and amount of interbasin subsurface flows and surface water-groundwater interaction has been evaluated along Stony Creek and the Sacramento River using the Colusa C2VSim integrated hydrologic model. The next planned meeting of this group is tentatively scheduled for March 2, at which point it is anticipated that additional information from neighboring subbasins (e.g. Sutter) will be available.

Additionally, the Northern California Water Association (NCWA) has convened a group to discuss interbasin coordination. Areas of focus have included depletion of interconnected surface waters and potential monitoring needs moving forward, approaches to identify groundwater dependent ecosystems

(GDEs) and incorporate them into the GSPs, land subsidence, and water quality. Meetings of this group were held December 1 and January 5. The next meeting is scheduled for February 2.

Sustainable Management Criteria

Draft Sustainability Goal and Undesirable Results statements were reviewed with the Joint TAC in November and modified based on input received. These components of the GSP are foundational to Plan development and have been adopted by the GSA Boards as drafts, recognizing that they will not be finalized until the full GSP is adopted and submitted to DWR by January 31, 2022.

Evaluation of potential minimum thresholds (MTs), measurable objectives (MOs), and other quantitative criteria (collectively referred to as thresholds) continues and has been informed by input from the Joint TAC. During December efforts included review of available data describing historical subsidence in the subbasin, updates to hydrographs depicting historical groundwater levels for representative monitoring wells, analysis of well completion reports documenting depths of existing groundwater infrastructure, and additional analysis of potential MTs and MOs for groundwater levels based on consideration of historical water levels and depths of nearby wells for each representative monitoring well.

Discussion of MTs and MOs occurred with the TAC in January and will continue in upcoming meetings. Development of draft MTs and MOs is anticipated in early 2021, and it is anticipated that additional discussion with the GSA Boards will also occur at that time.

Well Monitoring Pilot Program

Development and implementation of the program continued in December, focused on preparation for a public workshop to roll out the program on January 25. The workshop will provide description of the program, including an overview, description of funding, program objectives, program activities and timeline, eligibility criteria and selection process, and next step. The presentation will be followed by an opportunity for additional discussion with and questions from potential participants.

Materials for the program developed include an informational flyer and application for potential participants. A formal agreement between the GSAs and potential participants is under development.

It is anticipated that selection and enrollment will occur in February and March, followed by deployment of equipment and implementation of the program.

Projects and Management Actions (PMAs)

During December, efforts included additional evaluation of potential availability of currently unused surface water supplies and updates to a draft matrix of potential PMAs, along with criteria to complete initial screening of potential PMAs for inclusion in the GSP. Additionally, a form to gather stakeholder input and ideas regarding potential PMAs was finalized and distributed through interested parties lists and social media. Formats for submitting PMA ideas include MS Word, Adobe pdf, and a Google web form. A PMAs ideas are received, they will be incorporated into the draft matrix to support further evaluation.

Management Areas

Discussion at the December TAC meeting included a focused discussion of Management Areas (MAs) that could be formed to facilitate implementation of the GSP. Topics included an overview of MAs as described by SGMA and the associated GSP regulations, a description of basins that have completed GSPs with and without MAs and how MAs are being used in the plans, potential pros and cons of MAs, and an open discussion of the potential to form MAs in the Colusa Subbasin. Based on requests from the TAC, information (maps) describing physical and jurisdictional characteristics of the subbasin were

prepared for discussion at the January TAC meeting. Additional discussion with both the TAC and GSA boards is anticipated moving forward to consider both technical and policy aspects of the decision to form one or more MAs in the Colusa Subbasin.

Funding Mechanisms

An evaluation of funding mechanisms to support GSP implementation is underway. In December, efforts included review of potential financing approaches and funding mechanisms, compilation of baseline economic data for Colusa and Glenn counties (crop yields, acreage, prices, gross production value, etc.), development of summary statistics of baseline data, compilation of data describing employment and wages for Colusa and Glenn counties, and initial development of a technical report describing the evaluation. Additionally, a presentation was prepared for the December TAC meeting describing economic analysis to support GSP development, including the subbasin economic setting and overview of the range of funding options, and an introduction of preliminary concepts and overview of options that will be evaluated further.

Public Outreach

Substantial effort was dedicated in December to prepare for and conduct public outreach activities, including public workshops on December 9 and 10, as well as a Joint TAC meeting on December 11. Topics for the public workshops included (1) an overview of SGMA, the GSP development process and timeline; (2) current understanding of the hydrogeology and groundwater conditions of the subbasin; (3) draft historical, current, and projected water budgets for the subbasin; (4) Sustainable Management Criteria, including the Sustainability Goal, potential Undesirable Results, Minimum Thresholds, and Measurable Objectives; (5) Projects and Management Actions that could be considered to maintain or achieve sustainable conditions moving forward; and (6) a brief overview of the well monitoring pilot program.

Additionally, an official logo and branding were developed for the Colusa Subbasin for use in future outreach materials and as part of social media. During January outreach efforts will continue with preparation for the well monitoring pilot program workshop, updates to the communication and engagement plan, and refinement of the administrative record to formally track stakeholder input received.

**Colusa Basin Groundwater Sustainability Plan Development Outreach
Comment Tracking Table**

Comments with an * have been abridged. The entirety of this input including any reference documents provided may be found in column H
Comment Categories: General input, Question, Request, Clarification

#	Date Submitted	Commenter Name (if available)	Commenter Organization (if applicable)	Venue Received	Subject	Comment	Link to Full Comment/ Reference Materials (if applicable)	Categorized Comment	Response Needed
1	7/6/2020	Ben King	Land Owner	Email	Connate Water	My concern is that the connate seawater under the Sutter Buttes is contaminating groundwater and drinking water quality....My suggestion would be to pick up where the SWRCB left off in 1952 and examine salt water and arsenic levels within a 15 mile circumference around the Buttes and set up a monitoring network to monitor changes in ground water quality going forward. This would not only focus on the southern part of the Buttes but within the whole circumference.*	https://app.box.com/s/auy1v5yuwgoesm5dttz489jg41r7zl5b	General Input	Response included in Administrative Record Files
2	8/9/2019	Brian Cahill	Land Owner		Projects	While there will be private landowner sites for groundwater recharge ponds, private sites would be most effective if they augment a public effort by Colusa county to revamp road crossing drainage culverts such that storm flows are re directed to intermittent streams like Salt creek via trenching the side road ditches. At present, the road culverts facilitate storm flows crossing the public road (necessary) but because there is no attempt to re-direct the storm flows the volumes accumulate such that the volumes arriving on private property are difficult to manage.		General Input	Comments will be logged for consideration when the PMAs portion of the GSP is being developed. Will need to coordinate also with land use entities.
3	10/20/2020	Ben King	Land Owner	Email	Water Quality	I want to highlight the C 14 dating results and trace metal contamination levels for IASC 21 generally. See the Tables for IASC 21 at the end of the Report. (Referencing USGS Middle Sacramento Valley 2006 Water Quality Report)...Perhaps we can work with the USGS to expand its network around the Sutter Buttes. Even if we get USGS testing every 10 years that may be enough to detect water quality trends. We just need a baseline because this may be 100 year issues. My concern is how the increased pumping to support permanent crops may effect the lateral and upward movement of natural contaminants. I think that recharge probably can mitigate this and may have contained the issue before the levees were built. With recharge we can tactically simulate some of the the natural benefits of the historical benefits of flooding in the Sacramento Valley while benefiting from the State's investment in flood control and reclamation.*	https://app.box.com/s/45i9kz30hb3ci2qxah7r66dgrvi8s0iy	General Input	Response included in Administrative Record Files
4	11/18/2019	Ben King	Land Owner	Email	Water Quality	I am concerned about the potential for further later movement of the salt water northward towards the Butte Sink that may be cause by future groundwater substitution on east side of the Sacramento River near Colusa. As you know Colusa, Grimes, Sutter and Meridian use groundwater. The other issue that came to my mind was the potential for further deterioration due to future earthquake activity. Perhaps – this area might be a good candidate for an Aerial mapping if the mapping could detect higher chloride levels in the groundwater? References: SWRCB Bulletin #6 (1952), Hydrogeology of the Sutter Basin (George Curtin 1920), USGS Geochemistry of groundwater in the Sacramento Valley (1984), USGS Late Cenozoic Tectonism of the Sacramento Valley (1987) *	https://app.box.com/s/7l3fswdsa97yzxm84zjdnwylf18jze29	General Input	Response included in Administrative Record Files

**Colusa Basin Groundwater Sustainability Plan Development Outreach
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#	Date Submitted	Commenter Name (if available)	Commenter Organization (if applicable)	Venue Received	Subject	Comment	Link to Full Comment/ Reference Materials (if applicable)	Categorized Comment	Response Needed
5	12/9/2020	Ben King	Land Owner	Email	Water Quality	I want to make the point that the current law is that the SWRCB will curtail Sacramento River and Sacramento River tributary diversions during critically dry years. This is the legal status quo after the 2015 year drought and the curtailments should be included in the Water Budget. The reason I am making this point is the recent decision regarding diversions from Deer Creek during the 2014/15 drought. This litigation was appealed to the California Appellate court which confirms the current power to curtail water supplies for the Colusa Basin. The California Supreme Court declined to review the Appellate Courts decision on September 23, 2020. I have attached the Appellate Court decision confirming existing law and current limitations of surface water supplies for the Colusa Basin. Just to reiterate the current law gives the SWRCB to enforce the current instream minimums under the Bay Delta Plan. Any voluntary settlement that may be less restrictive is speculative and does not represent the in stream requirements currently enforced.		General Input	
6	12/9/2020	Member of the Public	N/A	Public Meeting	Aquifer Depths	Has the consultant team ground-truthed the freshwater aquifer depths across the basin? Due to the seawater aquifer under the subbasin's groundwater system, these depths are an important consideration. The interplay between the two has resulted in areas where there are no wells due to water quality being impacted by the saltwater.		Question	Answer provided in 12/09 public meeting. See meeting summary for full response.
7	12/9/2020	Ben King	Land Owner	Public Meeting	Water Quality	I am concerned about drinking water quality and availability in Colusa county including arsenic contamination.*	https://app.box.com/s/xf8ke3p5morjfcmy870xays1liqnnzwp	General Input	
8	12/9/2020	Ben King	Land Owner	Email	Subsidence	I would suggest that our most critical infrastructure is the transportation infrastructure of I-5 and the residential infrastructure of Arbuckle including the Arbuckle cemetery. The cemetery is very close to the greatest level of subsidence and I-5 crosses adjacent to the area of greatest subsidence. I believe we have to look at the potential for multi-feet subsidence over decades and we need to look at the subsidence potential in the context of historical events.*	https://app.box.com/s/jgldb714deysi7rn3ofevevelu7egu8v	General Input	
9	12/9/2020	Member of the Public	N/A	Public Meeting	Funding	What type of studies might be done with Proposition 68 funds?		Question	Answer provided in 12/09 public meeting. See meeting summary for full response.
10	12/9/2020	Member of the Public	N/A	Public Meeting	Water Supply	Under the Bay-Delta Plan, aren't we going to have only 40-50% of the surface water we had in the past? Have you tracked how much water we lose from the basin through water transfers? How much do we pump for groundwater substitution? These do not appear to be included in the budget.		Question	Answer provided in 12/09 public meeting. See meeting summary for full response.
11	12/9/2020	Member of the Public	N/A	Public Meeting	Water Supply	Do models show any significant variation in storage in some parts of the subbasin compared to others, and if so, would some areas have more issues than others?		Question	Answer provided in 12/09 public meeting. See meeting summary for full response.

**Colusa Basin Groundwater Sustainability Plan Development Outreach
Comment Tracking Table**

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#	Date Submitted	Commenter Name (if available)	Commenter Organization (if applicable)	Venue Received	Subject	Comment	Link to Full Comment/ Reference Materials (if applicable)	Categorized Comment	Response Needed
12	12/9/2020	Member of the Public	N/A	Public Meeting	Water Budgets	Have zone water budgets been created at this point for sub areas of the basin and if not, are they are planned?		Question	Answer provided in 12/09 public meeting. See meeting summary for full response.
13	12/9/2020	Leslie Nerli	GGA Board Member Alternate	Public Meeting	Thresholds	Since conditions vary between wet years and dry years, will you take into account dry years vs wet years when setting thresholds? Can you set multiple thresholds?		Question	Answer provided in 12/09 public meeting. See meeting summary for full response.
14	12/9/2020	Member of the Public	N/A	Public Meeting	Water Supply and Quality	The residents in Colusa County rely on groundwater for drinking water. The County faces issues around water availability, such as when domestic wells run dry in critically dry years as a result of competition with agricultural use. Domestic use should be the priority and that use should grow in a reasonable way. Colusa County also faces issues around maintaining groundwater quality in critically dry years. The U.S. Environmental Protection Agency standard for arsenic is ten parts per million, and there are areas that exceed that. This issue will continue due to the connate water coming out of Sutter Buttes and can't be mitigated. In the future, Colusa County may need water from the Sacramento River, which is very expensive, but may be a good investment.		General Input	
15	12/9/2020	Member of the Public	N/A	Public Meeting	Sites Project	Regarding his concerns about the Sites Reservoir project and the proposed interconnect between the Tehama-Colusa Canal and Colusa Basin Drain, the speaker stated that this project should be in Colusa County, because Sites Reservoir is in Colusa, and it needs to promote safe drinking water supply in Williams and Arbuckle. It should be close to Williams and Arbuckle. The Tehama-Colusa Canal jags southeast of Arbuckle. One of the closest distances between the canal and drain is south of Arbuckle. The County needs to push for the interconnect to be in Colusa County.		General Input	
16	12/10/2020	Member of the Public	N/A	Public Meeting	Groundwater Dependent Ecosystems	The Nature Conservancy (TNC) cuts off groundwater dependent ecosystems at a depth of 30 feet. However, the U.S. Department of Agriculture notes that Valley Oak groves can tap into groundwater as deep as 80 feet and are groundwater dependent. Thus, the GSP should take into consideration that Valley Oak woodlands may be tapping deeper than the TNC guidelines suggest. This information has also been presented to the Butte County Department of Water and Resource Conservation and should be shared in the upcoming Interbasin Coordination Group meeting.		General Input	
17	12/10/2020	Member of the Public	N/A	Public Meeting	Interbasin Coordination	There have been discrepancies between basin setting and water budget reports during the initial stages of groundwater sustainability planning. The Interbasin Coordination Group stated in their December 1st meeting agenda that they would review compiled data, identify significant differences, and discuss potential ways to reconcile those differences. Has there been an update? For example, is there an update on reconciling the discrepancies from the various water models used, since consistency is critical to the foundation of groundwater planning.		Question	Answer provided in 12/10 public meeting. See meeting summary for full response.

**Colusa Basin Groundwater Sustainability Plan Development Outreach
Comment Tracking Table**

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#	Date Submitted	Commenter Name (if available)	Commenter Organization (if applicable)	Venue Received	Subject	Comment	Link to Full Comment/ Reference Materials (if applicable)	Categorized Comment	Response Needed
18	12/10/2020	Member of the Public	N/A	Public Meeting	Groundwater Dependent Ecosystems	Was the map on groundwater ecosystem also based on soil mapping based on the lines along with west side of the basin?		Question	Answer provided in 12/10 public meeting. See meeting summary for full response.
19	12/10/2020	Member of the Public	N/A	Public Meeting	Subbasin Mapping	Are the 38 subareas tools for data collection for management of the whole basin or 38 separate Management Areas?		Question	Answer provided in 12/10 public meeting. See meeting summary for full response.
20	12/10/2020	Member of the Public	N/A	Public Meeting	SGMA	Are other regions in the state where the State of California has taken over the monitoring--the thing we are trying to avoid?		Question	Answer provided in 12/10 public meeting. See meeting summary for full response.
21	12/10/2020	Mathew E. Jones	T&P Farms	Email	Subbasin Mapping	In regards to the 38 subbasins, how can we access the interactive mapping for these? How were they determined etc.		Question	Byron Clark followed up directly with Mathew Jones
22	12/10/2020	Mathew E. Jones	T&P Farms	Email	Recharge	Recharge was touched upon in the public meeting. I did not see or hear discussion regarding banking of in-lieu or recharged water within the basin. I am sure it would be a minimal amount, but may think about using within the water budget. Is banking being addressed in the GSP?		Question	Byron Clark followed up directly with Mathew Jones
23	12/10/2020	Antionette Marsh	N/A	Public Meeting	GDEs	Was the map on groundwater exosystem also based on soil mapping? Based on the lines along the West side?		Question	Answer provided in 12/10 public meeting. See meeting summary for full response.
24	12/17/2020	Karen Biane	"Stakeholder" in the Glenn County subwatershed basin	Email	Outreach Approach	I have attached a memo outlining my commentary on specific areas about the presentations and plans. I am aware of the incredible complexity and challenges the planning and implementation of the program will involve. The ideas presented are designed to potentially improve the communications to, and understanding by, the water community. *	https://app.box.com/s/8gnkuuq4xnuznj5e13cjxv028xjlkdxa	General Input	
25	12/17/2020	Sharon Wiggin	N/A	Email	General Input	One of our concerns is on Sand Creek. 50 years ago, that Creek spread out very wide and we believe that gave us recharge for out underground runs very fast. We can't do anything about it because of the California Department of Fish and Wildlife. They will allow some low berms as long as one side has no berm. This isn't much help.		General Input	



Colusa Subbasin Well Monitoring Pilot Program Participant Information Form

BACKGROUND

The Colusa Subbasin Groundwater Sustainability Agencies (GSAs) are implementing an incentive-based pilot program to work with interested growers and landowners to continuously monitor groundwater use and water levels at participating wells. This voluntary, non-regulatory program is intended to support the GSAs in gathering information regarding groundwater use in the subbasin while providing participants with near-real time access to information on well production and groundwater levels at their wells to support irrigation management.

PROGRAM DESCRIPTION

Activities

Interested parties are invited to submit a brief application describing contact information, location, cropping, and other information related to the proposed groundwater well. Following the receipt of applications, participants will be selected considering certain criteria. Participants agree that the well location and information collected may be made publicly available. Participants also agree that GSA representatives may make site visits to inspect wells, verify installation, and collect manual measurements as needed.

Incentives

The program will cover the purchase cost of a flowmeter or upgrades to an existing flow meter (up to \$2,500), if needed, purchase and installation of a pressure transducer (to monitor groundwater levels), datalogger, solar panel, cellular modem, and a 3-year subscription for web and mobile access to data gathered. Program participation may be extended beyond 3 years, as mutually agreed.

Participants will be responsible for:

- Installation of flow meter per manufacturer specifications
- Installation of access tube for pressure transducer in well casing
- Monthly cellular modem costs (approx. \$15 per month)
- Manual reporting of pumping data, in the event of device failure

Timeline

- **January 2021:** Applications Accepted
- **February – March 2021:** Participants Selected, Agreements Executed, Wells Inspected, and Equipment Installed
- **April 2021 – October 2023:** Wells Monitored



Funding for this project has been provided in full or in part from the Water Quality, Supply, and Infrastructure Improvement Act of 2014 and the California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access For All Act of 2018 (Proposition 68), and through an agreement with the State Department of Water Resources.

QUESTIONS?

For more information, please contact:

Colusa Groundwater Authority

Mary Fahey, CGA Program Manager
530-458-0719 • mfahey@countyofcolusa.com

Glenn Groundwater Authority

Lisa Hunter, GGA Program Manager
530-934-6540 • lhunter@countyofglenn.net



COLUSA SUBBASIN WELL MONITORING PILOT PROGRAM APPLICATION

Application Deadline: February 26, 2021

Thank you for your interest in the Colusa Subbasin Well Monitoring Pilot Program. Please provide the following information. Note that landowner must be up to date with their GSA operations fee. For wells in Colusa County, please submit applications via email or post to Mary Fahey, Program Manager, Colusa Groundwater Authority, 100 Sunrise Blvd., Suite A, Colusa CA 95932 (Mfahey@countyofcolusa.com). For wells in Glenn County, please submit applications via email or post to Lisa Hunter, Program Manager, Glenn Groundwater Authority, 225 N Tehama St., Willows, CA 95988 (Lhunter@countyofglenn.net).

If more space is needed for any items, please use back of application.

Participant: _____

Address: _____

Contact Name: _____ Contact Phone: _____

Contact Email: _____

Location Description, including parcel number(s) (please also provide a map showing well location and field(s) served): _____

Acreage Served by the Well: _____

Crop(s) Grown: _____

Irrigation Method (drip, microspray, sprinkler, etc.):

Is the well currently equipped with a flow meter (circle one)? Yes / No.

If so, is it installed per manufacturer specifications (circle one)? Yes / No.

(Please provide photographs of meter, upstream conditions, and downstream conditions.)

Is surface water available for the area served by the well (circle one)? Yes / No

If surface water is available, on average, what is the estimated percent of crop irrigation needs met by groundwater? _____

Additional Information:

Do you agree to allow information collected to be shared by the GSAs (circle one)? Yes / No

Do you agree to allow GSA representatives to visit your well site (circle one)? Yes / No

Management Area Regulations

§351 (r): “Management area” refers to an area within a basin for which the Plan may identify different minimum thresholds, measurable objectives, monitoring, or projects and management actions based on differences in water use sector, water source type, geology, aquifer characteristics, or other factors.”

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GSPs that include management areas need to describe:

- Reason for creation of management area
- Sustainable management criteria and rationale
- Level of monitoring
- §354.20 (b) (4): “An explanation of **how the management area can operate under different minimum thresholds and measurable objectives without causing undesirable results outside the management area, if applicable.**”

Summary of Regulations

- A management area can be used to”
 - Set different minimum thresholds
 - Set different measurable objectives
 - Set up different density and frequency of monitoring
 - Vary implementation of projects and management actions
- Management areas are optional but may be established at GSA’s discretion
- Management areas increase GSP complexity

Potential Management Area Uses

- Provided by regulation
 - Differentiate rationale for Minimum Thresholds and Measurable Objectives
 - Establish different concentration or types of monitoring
-
- At GSA Board's Discretion
 - At GSA's discretion, Management Areas *could* be used to:
 - Delegate authorities to other jurisdictions
 - Perform projects and management actions discretely by Management Area

Key Management Area Considerations

- The GSA Board may assign costs, allocations, and projects and management actions spatially throughout the Subbasin, regardless of management areas
- Management Areas should be considered based on:
 - Unique physical conditions requiring specific thresholds or monitoring
 - Efficiency of existing organizational structures (districts, cities) to assist and help manage projects and/or management actions within the area

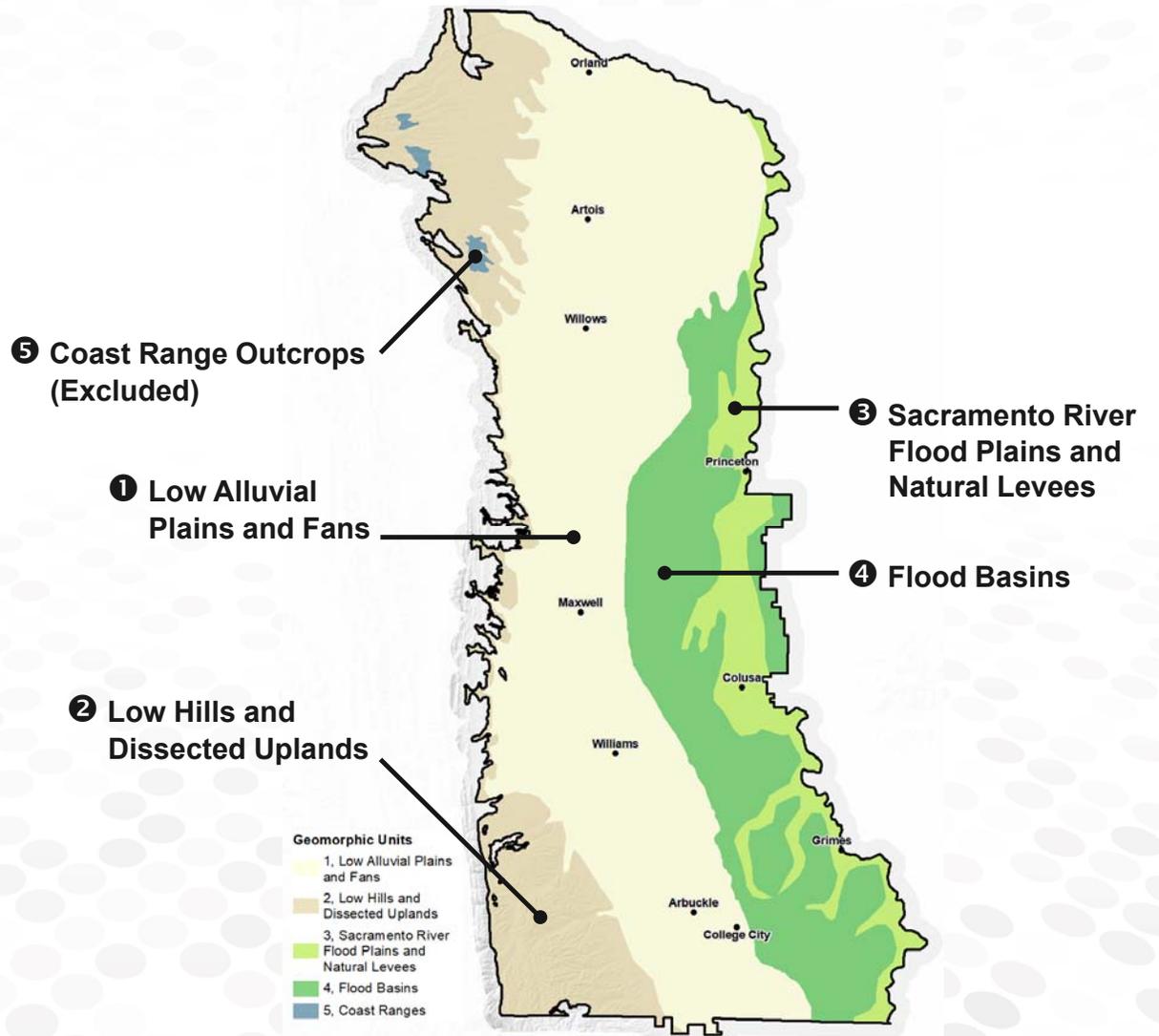
Options for Management Area Boundaries

- Physical Boundaries
 - Canals
 - Streams
 - Watershed Divides
 - Isocontours
 - Groundwater contours
- Jurisdictional Boundaries
 - Districts
 - Cities/Towns
 - Counties

Established Geomorphic Boundaries

USGS Geomorphic Provinces

Revised USGS Delineation



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Management Areas (MA) should be considered a tool that can be used to help make the GSP easier to implement, if needed. If used in a productive way MAs can be a benefit. If non-productive MAs could be a burden.

Options with Management Areas

- MAs based on physical boundaries will be easier to justify in the GSP. Political boundaries will be more challenging to justify.
- MAs based on political boundaries don't protect a district from issues that may occur outside of their boundary. If an area of the basin is non-compliant, the State Water Resources Control Board (SWRCB) would intervene in the basin regardless of where the issue occurs.
- There are already two county jurisdictions that could be considered as MAs.
- The GSAs should consider how/if MAs can be used to make GSP implementation more efficient.
- MAs could be used to help assign allocation of costs for projects. This takes advantage of existing district infrastructure.
- In the San Pasqual GSA, MAs are split between cities and the county. They didn't set thresholds differently, just use MAs for administrative management purposes.
- In basins where there are challenging conditions in need of management (projects, limiting pumping, installing meters, etc.) a GSA could benefit from MAs by utilizing infrastructure that Districts already have in place (landowner information, well information, billing, etc.).

Options without Management Areas

- MAs can be developed based on physical conditions. Minimum Thresholds (MT) can be developed based on those conditions (river vs. west side; saline, etc.). MAs are not needed to accomplish this. It could be defined that, in portions of the basin that exhibit certain defined physical conditions the MT is set at a certain point. Based on procedural "if/then" statements, if an area meets "X" criteria it gets one MT, if not, it goes to the next step. The GSAs are able to create conditions that would match what the MA would be without drawing the boundary on the map. This has been done in other basins successfully.
- The GSAs do not need MAs to allocate project costs. Costs could be allocated geographically or by the area that benefits from a project. It is important to remember that the basin is interconnected. For example, recharge projects will have multiple beneficiaries. The numerical model can help define benefits from a project.
- If a GSA attempts to use MAs to set challenging thresholds that are different from one MA to another, this adds another layer of complexity to a GSP related to conflict resolution as well as justification for setting up MAs this way. Additionally, every

Annual Report and Five-year Update Report requires a discussion about MAs. This could add complexity and extra cost during GSP implementation.

What consultants need:

- If the consultant team prepares MAs without prior Board buy-in, experience has demonstrated that they cannot get it right. Once they receive substantive feedback from the Boards, they can develop some sample MAs.
- Board members in favor of MAs could draw up a proposal that could go before the Joint TAC and Boards. The Consultants could provide support by developing mapping, etc.
- The Boards should convey how they feel about MAs in general – in favor or against (or too early to tell).
- If MAs are desired, is the preference to set them based on physical boundaries or political boundaries?
- What other information do you (Board Members) need from the Consultants to help with this decision?

What Staff needs:

- Does the Board want to rely on a TAC recommendation or should this discussion come exclusively to the Board?
- Is this a basin-wide discussion or separate CGA discussion?

Timeline:

- There will be further discussion in the coming months which will tie-in to Sustainable Management Criteria (SMC) and Projects and Management Actions (PMA) development.

10. COMMITTEE UPDATES

- a. Executive Committee
 - i. CGA/GGA Joint Executive Committee
- b. Stakeholder Engagement Committee
- c. Technical Advisory Committee

The **GGA Executive Committee** last met January 27, 2021. Discussion included a staff report highlighting updates on the potential formation of Management Areas, the annual audit, inter-basin coordination, and development of items to bring to the Board from TAC meetings in coordination with the TAC representative. The Executive Committee also received updated on GSP development including the Well Monitoring Pilot Program, Projects and Management Actions solicitation form, and the process for tracking and reporting comments received on GSP development. The Committee also discussed The Nature Conservancy (TNC) and DWR Multi-benefit Recharge Project and directed staff and legal counsel to reach out to TNC and DWR to request clarifications on some logistical items prior to bringing the discussion back the full GGA Board. The Committee briefly discussed 2021 Goals and Priorities concluding that GSP development is the highest priority. The next meeting is scheduled for March 24, 2021. The CGA/GGA Joint Executive Committee has not met.

The **Stakeholder Engagement Committee** has not met and has nothing new to report.

The **Technical Advisory Committee (TAC)** met jointly with the Colusa Groundwater Authority (CGA) Technical Advisory Committee on January 8, 2021. Topics discussed were reviewed at the January 11, 2021 GGA Board meeting. Additionally, staff and the TAC representative to the Board are coordinating to bring relevant items to the Board to facilitate discussion and/or direction. The next CGA/GGA Joint TAC meeting is scheduled for February 12, 2021.

Full page slides of TAC presentations and other meeting materials are available on the GGA website at:

<https://www.countyofglenn.net/dept/planning-community-development-services/water-resources/glenn-groundwater-authority/gga>

Attachments

- CGA/GGA Joint TAC meeting presentation (1/8/21)



COLUSA AND GLENN GROUNDWATER AUTHORITIES

Colusa Subbasin

Joint Technical Advisory Committee
GSP Development

January 8, 2021

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Discussion Topics

- Subarea Water Budgets
 - Davids Engineering
- Sustainable Management Criteria
 - Woodard & Curran, ERA Economics
- Management Area Considerations
 - Woodard & Curran, West Yost

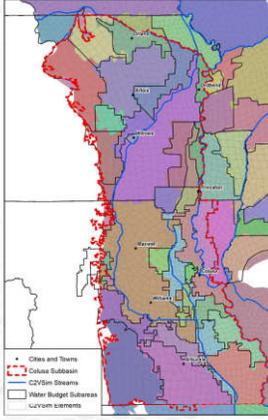
1/8/2021 Joint TAC 2

4.a. Subarea Water Budgets

1/8/2021 Joint TAC 3

Water Budget Approach

- Estimated using DWR's Integrated Hydrologic Model (C2VSimFG Beta2), with local refinements
- 38 Subareas in Colusa Subbasin
 - Water Suppliers/ Diverters
 - Counties
 - GW-Only Areas
- Ability to Report Out Water Budgets to Support Intrabasin Discussions



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Surface System Water Budget Components

- Land Use
- Precipitation
- Surface Water Deliveries
- Groundwater Pumping
- Evapotranspiration
- Deep Percolation
- Stream/Canal Seepage
- Runoff from Precipitation and Applied Water

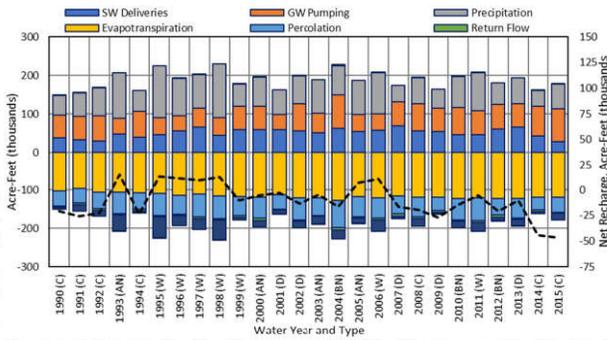
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Groundwater System Water Budget Components

- Subsurface Flows
- Exchanges with Surface Layer
 - Groundwater Pumping
 - Recharge
- Change in Groundwater Storage

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Example Surface Water Budget

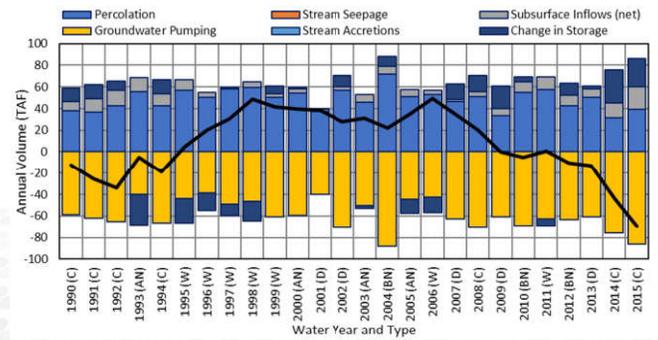


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Example Groundwater Budget



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Next Steps

- Assemble Draft Water Budget Summaries by Subarea
- Distribute for Additional Input
- Support Intrabasin Discussions
 - Management Areas
 - Sustainable Management Criteria
 - Projects and Management Actions

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Discussion

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4.b. Sustainable Management Criteria

Sustainable Management Criteria

- Considerations for groundwater level thresholds
 - Percent of range of measurements
 - Percentile of nearby wells depth
 - Percentile of nearby domestic wells depth
- Model use and forecasted surface water deliveries

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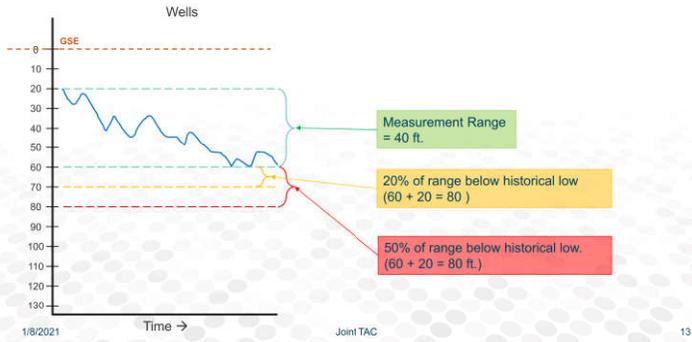
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Percent of Range Groundwater Levels

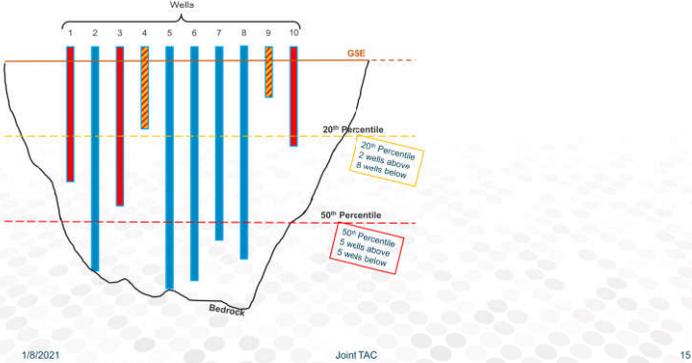


Thiessen Polygons and WCR database Groundwater Levels

- Shows area that is nearest to each monitoring well
- Can be used to select Well Completion Reports to identify which WCRs are closest to which monitoring point

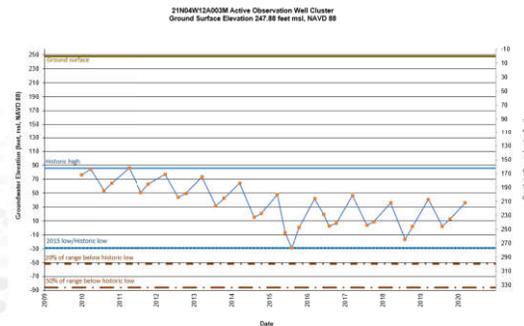


Understanding Well Depth Percentiles Groundwater Levels



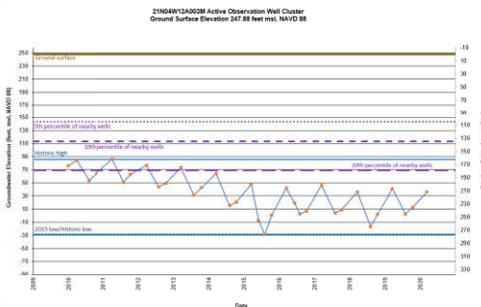
Period of Record

- 20%, 50% below historic low



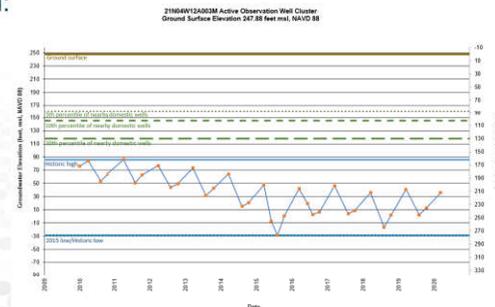
Percentile of All Nearby Wells

- 5th, 10th, 20th percentile
- Well types included:
 - Domestic
 - Industrial
 - Irrigation
 - Municipal
 - Public
 - Stock or Animal Watering



Percentile of Nearby Domestic Wells

- 5th, 10th, 20th percentile
- Well types included:
 - Domestic wells



Future Surface Water Availability

- Future surface water availability is uncertain
- Bay delta water quality control plan factors
- Need to be considered as part of minimum thresholds
- Will use numerical model under multiple scenarios to evaluate effects of reduced surface water deliveries on groundwater conditions
- Will use those scenarios to guide minimum threshold development

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Model Use and Forecasted Surface Water Deliveries

- Model reductions in surface water supply and corresponding reductions in groundwater levels due to increased pumping
- Compare to domestic well infrastructure to evaluate potential effects
- Consider using local considerations (nearby well depths, range of measurements, etc.) to set Minimum Thresholds that are similar in elevation to groundwater conditions under reduced future surface water deliveries

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Potential Economic Analysis to Support Selection of MT and MO

- Overview
- Economic analysis in other basins
 - Alternative PMA implementation timelines and associated Minimum Thresholds (MT) and Measurable Objectives (MO)
 - Tradeoff analysis: demand management and domestic well mitigation program
- Potential economic analysis
- Discussion

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Overview

- MT and MO may be set based on modeled groundwater levels and SMC
 - Different percentiles; historic lows; modeled reductions in surface water supply and associated groundwater levels
- Economic analysis is a framework for comparing tradeoffs in alternative MT/MO in a consistent manner
 - Costs and benefits occurring at different points in time

Example Tradeoffs in Setting MT/MO			
Set Higher MT/MO		Set Lower MT/MO	
Potential Benefits <ul style="list-style-type: none"> • Lower pumping cost • Fewer affected domestic wells • Reduced subsidence • GDE and other SMC benefits 	Potential Costs <ul style="list-style-type: none"> • Capital outlays for PMAs • May affect pumping in some years/regions • Increased monitoring and management • Risk of exceeding MT 	Potential Benefits <ul style="list-style-type: none"> • Delayed costs for PMAs • Greater flexibility to respond to surface water shortage • Greater management flexibility 	Potential Costs <ul style="list-style-type: none"> • Greater pumping cost • Domestic well impacts • Subsidence, GDE, and other SMC

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Example Analysis in Other Subbasins

- Madera Subbasin
 - Benefit-cost analysis of more rapid demand management (land idling) implementation
- Chowchilla Subbasin
 - Benefit-cost analysis of domestic well impacts

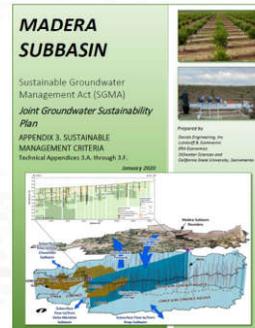
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Madera Subbasin

- Costs and benefits of reducing pumping to keep groundwater levels higher
 - Appendix 3.C Economic Impact Analysis of Accelerated Demand Reduction Program
- Method
 - Economic model of subbasin agriculture and water use
 - Projected groundwater elevation under GSP implementation



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Madera Subbasin

• Outcomes

- Quantification of the economic contribution of agriculture to subbasin economy
- Benefit-cost analysis of accelerated demand management (focus on irrigated agriculture)

Madera Benefit-Cost Analysis Summary	
Benefits	Costs
<ul style="list-style-type: none"> • Reduced pumping costs due to lesser lifts • SMCs including avoided domestic well replacement costs 	<ul style="list-style-type: none"> • Loss of crop revenue due to fallowing • County tax revenue losses • Farm job losses and impacts to DACs



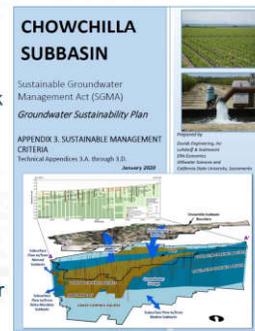
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Chowchilla Subbasin

- Costs and benefits of a potential domestic well mitigation program
 - Appendix 3.C Economic Analysis and Framework for Potential Domestic Well Mitigation Program
- Method
 - Economic model of subbasin agriculture and water use
 - Projected groundwater elevation under GSP implementation
 - Preliminary domestic well inventory developed for the GSP from multiple sources



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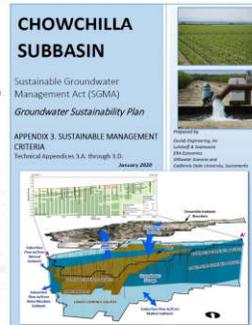
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Chowchilla Subbasin

• Outcomes

- Benefit-cost analysis of GSP implementation, accelerated demand management, and impacts to domestic wells
- Review of existing mitigation programs
- Quantification of potential program costs

Chowchilla Benefit-Cost Analysis Summary	
Benefits	Costs
<ul style="list-style-type: none"> • Economic activity with continued farming • Reduced pumping costs due to lesser lifts • Avoided domestic well replacement capital costs 	<ul style="list-style-type: none"> • Loss of crop revenue due to fallowing • Well replacement mitigation program costs



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Potential Economic Analysis Considerations

- Can provide a consistent framework for quantifying costs and benefits that occur over time
- Analysis can be scaled up or down to specific management areas if needed for future planning efforts
- Relation to funding mechanisms
 - Provides a basis for allocating project costs
 - Foundation for any benefits-based assessments
- Integrate with groundwater model projected levels under future land use and surface water availability

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Discussion

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4.c. Management Areas

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Management Areas

- Regulations
- Potential boundaries
- Management areas and projects and management areas
- Management area examples

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Potential Management Area Uses

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Options for Management Area Boundaries

- Physical Boundaries
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 - Streams
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 - Isocontours
 - Groundwater contours
- Jurisdictional Boundaries
 - Districts
 - Cities/Towns
 - Counties

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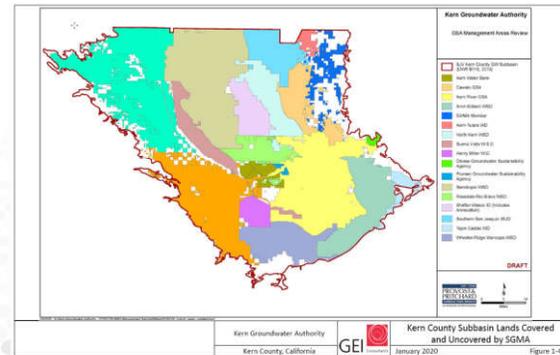
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Cuyama GSP Management Areas



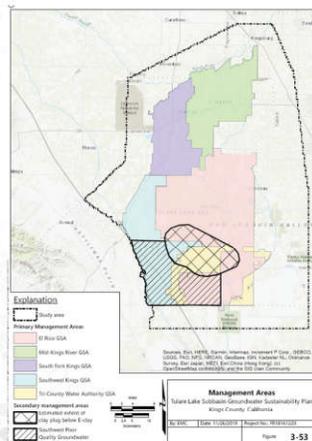
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Kern Groundwater Authority GSP Management Areas



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Tulare Lake Subbasin GSP Management Areas



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Potential Geographic Considerations for Management Areas

- Geomorphic Boundaries
- Topography
- Geology
- Streams
- Groundwater Levels
- Land Use
- Institutional Boundaries
- Groundwater Monitoring Network
- Groundwater Use
- Net Recharge

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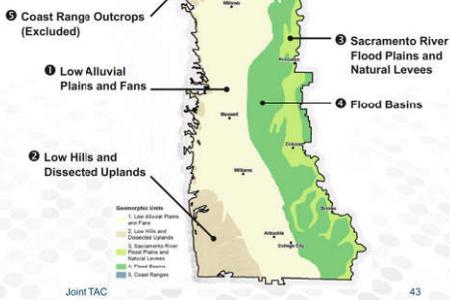
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Established Geomorphic Boundaries

USGS Geomorphic Provinces

Revised USGS Delineation

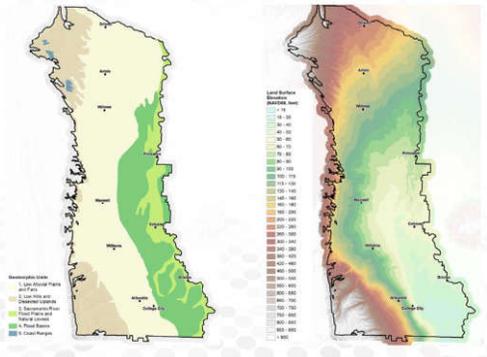


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Topography

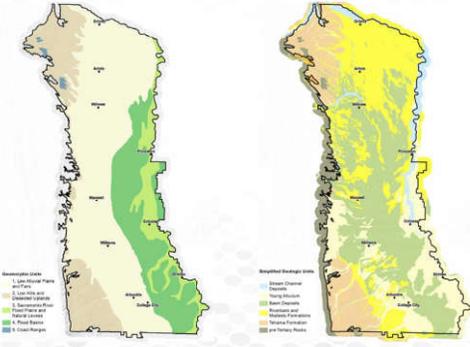


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Geology

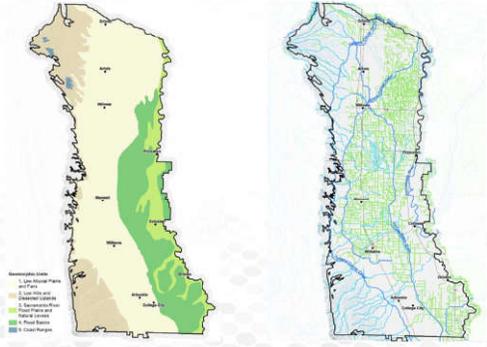


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Streams

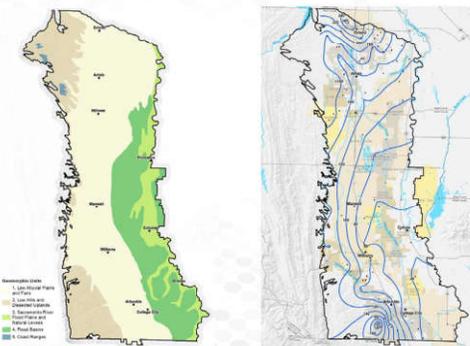


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Groundwater Levels

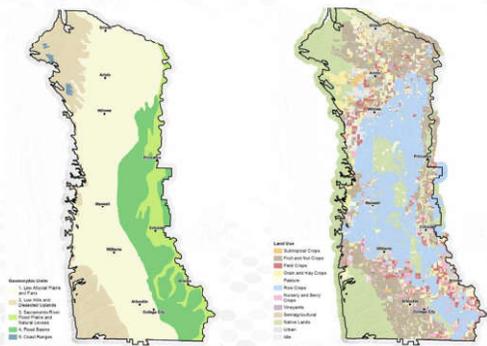


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Land Use



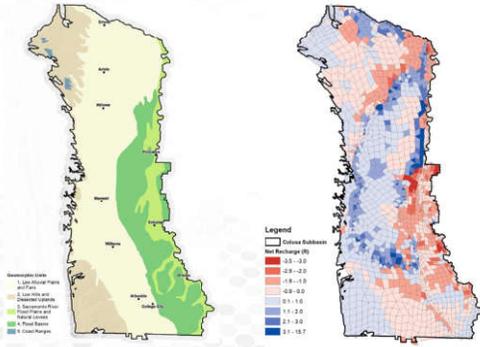
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Historical Net Recharge

(Recharge - Pumping)
Estimated 1990 - 2015



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Discussion

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11. MEMBER REPORTS AND COMMENTS

Members of the GGA Board are encouraged to share information, reports, comments, and suggest future agenda items. Action cannot be taken on items brought up under this item.

12. NEXT MEETING

The next regular meeting is scheduled for March 9, 2021 at 1:30 PM.

13. ADJOURN

The meeting will be adjourned.

*Indicates Action Item