



SACRAMENTO GROUNDWATER AUTHORITY
MEETING OF THE BOARD OF DIRECTORS

Thursday, February 8, 2024
at 9:00 a.m.

2295 Gateway Oaks, Suite 100
Sacramento, CA 95833
(916) 967-7692

The Board will discuss all items on this agenda, and may take action on any of those items, including information items and continued items. The Board may also discuss other items that do not appear on this agenda but will not act on those items unless action is urgent, and a resolution is passed by a two-thirds (2/3) vote declaring that the need for action arose after posting of this agenda.

IMPORTANT NOTICE REGARDING VIRTUAL PUBLIC PARTICIPATION:

The Sacramento Groundwater Authority currently provides in person as well as virtual public participation via the Zoom link below until further notice. The public shall have the opportunity to directly address the Board on any item of interest before or during the Board's consideration of that item. Public comment on items within the jurisdiction of the Board is welcomed, subject to reasonable time limitations for each speaker.

Join the meeting from your computer, tablet or smartphone

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Public documents relating to any open session item listed on this agenda that are distributed to all or a majority of the members of the Board of Directors less than 72 hours before the meeting are available for public inspection on SGA's website. In compliance with the Americans with Disabilities Act, if you have a disability and need a disability-related modification or accommodation to participate in this meeting, please contact jpeifer@rwah2o.org. Requests must be made as early as possible, and at least one full business day before the start of the meeting.

AGENDA

1. CALL TO ORDER AND ROLL CALL

- 2. PUBLIC COMMENT:** Members of the public who wish to address the Board may do so at this time. Please keep your comments to less than three minutes.

3. CONSENT CALENDAR:

All items listed under the Consent Calendar are considered and acted upon by one motion. Anyone may request an item be removed for separate consideration.

3.1 Approve the draft meeting minutes of December 14, 2023 regular SGA Board meeting.

3.2 Appoint Tom Hoffart as Acting Board Clerk

3.3 Appoint Tom Hoffart as Controller and Treasurer

3.4 Approve Staff Cost of Living Adjustments in accordance with Policy 100.3

Action: Approve Consent Calendar items as presented

4. SUSTAINABLE GROUNDWATER MANAGEMENT ACT GROUNDWATER SUSTAINABILITY PLAN IMPLEMENTATION AND ROUND 2 GRANT AWARD

Information and Presentation: Trevor Joseph, Manager of Technical Services

Action: Waive SGA Policy 300.1 and Authorize the Executive Director to enter into separate agreements for consulting services with GEI Consultants, Woodard Curran, and West Yost.

5. DEVELOPMENT OF THE ANNUAL REPORT

Information: Trevor Joseph, Manager of Technical Services

6. DEVELOPMENT OF SGA FISCAL YEAR 2024 – 2025 BUDGET

Information and Presentation: Tom Hoffart, Finance and Administrative Services Manager

Action: Chair to Appoint Budget Subcommittee for Fiscal Year 2024 – 2025

7. SGA 2024 STRATEGIC PRIORITIES

Discussion: Trevor Joseph, Manager of Technical Services

Action: Approve SGA 2024 Strategic Priorities

8. EXECUTIVE DIRECTOR’S REPORT

9. DIRECTORS’ COMMENTS

ADJOURNMENT

Next SGA Board of Director’s Meetings:

April 11, 2024, 9:00 a.m. at the RWA/SGA office, 2295 Gateway Oaks, Suite 100, Sacramento, CA 95833. The location is subject to change.

Notification will be emailed when the SGA electronic packet is complete and posted on the SGA website at <https://www.sgah2o.org/meetings/board-meetings/>

Posted on: February 2, 2024

James Peifer, Executive Director

Topic: Public Comment
Type: New Business
Item For: Information/Discussion
Purpose: Routine

SUBMITTED BY: Ashley Flores, CMC
Secretary

PRESENTER: Paul Selsky
Chair

EXECUTIVE SUMMARY

This is an information item to provide an opportunity for the Sacramento Groundwater Authority Board of Directors to recognize or hear from visitors that may be attending the meeting or to allow members of the public to address the Board of Directors on matters that are not on the agenda.

As noted on the agenda, members of the public who wish to address the committee may do so at this time. Please keep your comments to less than three minutes.

STAFF RECOMMENDED ACTION

None. This item is for information only.

BACKGROUND

Public agencies are required by law to provide an opportunity for the public to address the SGA Board of Directors matters that are not on the agenda.

3.0 CONSENT CALENDAR

Topic: Meeting Minutes
Type: Consent Calendar
Item For: Action; Motion to Approve
Purpose: [SGA Policy 200.1, Chapter 3.15](#)

SUBMITTED BY: Jim Peifer
Executive Director

PRESENTER: Jim Peifer
Executive Director

EXECUTIVE SUMMARY

This is an action item for the Sacramento Groundwater Authority Board of Directors to review and consider approving the draft minutes of the regular Sacramento Groundwater Authority Board of Directors Meeting of December 14, 2023.

STAFF RECOMMENDED ACTION

A motion to approve the draft minutes, as presented or amended.

BACKGROUND

The draft minutes of the above referenced meetings are included with this Agenda. The minutes reflect the SGA Policy 200.1, § 3.15 to document specific details on items discussed at the meetings.

The Executive Director may list on the agenda a "consent calendar", which will consist of routine matters on which there is generally no opposition or need for discussion. Examples of consent calendar items might include approval of minutes, financial reports and routine resolutions. Any matter may be removed from the consent calendar and placed on the regular calendar at the request of any member of the Board. The entire consent calendar may be approved by a single motion made, seconded and approved by the Board.

FINDING/CONCLUSION

Staff believes the draft of the presented minutes correctly reflect the information shared and actions taken by the Board of Directors.

ATTACHMENTS

Attachment 1- Draft meeting minutes of the Sacramento Groundwater Authority Board of Directors Meeting of December 14, 2023

Attachment 1

**Draft meeting minutes of the Sacramento Groundwater Authority Board of
Directors Special Meeting of December 14, 2023**



SACRAMENTO GROUNDWATER AUTHORITY

Board Meeting

Draft Minutes

December 14, 2023

1. CALL TO ORDER

Chair Marx called the special meeting of the SGA Board of Directors to order at 9:00 a.m. at the RWA conference room located at 2295 Gateway Oaks Drive, Suite 100, Sacramento, CA 95833.

Mr. Peifer welcomed Mr. Tom Hoffart who will be taking over for Ms. Reina Luken.

A quorum was established of 12 participating members. Individuals in attendance are listed below:

Board Members

Paul Selsky, Carmichael Water District
Todd Eising, City of Folsom
Lisa Kaplan, City of Sacramento
Brett Ewart, City of Sacramento
Chris Hunley, County of Sacramento
Gwynne Pratt, Del Paso Manor Water District
Paul Schubert, Golden State Water Company
Randy Marx, Fair Oaks Water District - Chair
Mary Harris, Rio Linda/Elverta Community Water District
Jay Boatwright, Sacramento Suburban Water District
Ted Costa, San Juan Water District
Brett Gray, Natomas Central Mutual Water Company
Nathan Doyel, Agriculture

Staff Members

Jim Peifer, Trevor Joseph, Josette Reina-Luken, Tom Hoffart, Ryan Ojakian, Raiyna Villasenor, and Chris Sanders, legal counsel

Others in Attendance

Vanessa Nishikawa, Stantec; Greg Zlotnick, San Juan Water District; Paul Helliker, San Juan Water District; Dan York, Sacramento Suburban Water District; Kevin Thomas, Sacramento Suburban Water District; and Craig Locke, Sacramento Suburban Water District

2. PUBLIC COMMENT

None

3. CONSENT CALENDAR

- 3.1** Approve the draft meeting minutes of October 12, 2023 SGA Board meeting.
3.2 Approve Josette Reina-Luken as the alternate Board Secretary for the December 14, 2023 Board meeting.

A motion was made to approve the Consent Calendar.

Motion/Second/Carried Director Harris moved with a second by Director Boatwright

Paul Selsky, Carmichael Water District; Todd Eising, City of Folsom; Lisa Kaplan, City of Sacramento; Chris Hunley, County of Sacramento; Gwynne Pratt, Del Paso Manor Water District; Randy Marx, Fair Oaks Water District; Paul Schubert, Golden State Water Company; Mary Harris, Rio Linda/Elverta Community Water District; Jay Boatwright, Sacramento Suburban Water District; Ted Costa, San Juan Water District; Brett Gray, Natomas Central Mutual Water Company; Nathan Doyle, Agriculture; voted yes. Motion passed.

Ayes- 12

Noes- 0

Abstained- 0

Absent- 4

4. FISCAL YEAR 2022/2023 AUDIT REPORT

Chair Marx took item 4 after item 7 to accommodate Ms. Sheipline's schedule.

Ms. Ingrid Sheipline, Richardson & Co., llp. presented the final audit report for the fiscal year ending June 30, 2022. She highlighted some of the required communications and the actual audit financial statement report. There is an unqualified opinion, which is the cleanest possible opinion that can be provided, there are no new accounting policies to report, no adjustments and no findings in the audit report. She gave an overview of the financial statements, revenues and expenses, the pension liability, the required supplementary information and the independent auditor's report.

A motion was made to accept the audit report.

Motion/Second/Carried: Director Harris moved with a second by Director Schubert

Paul Selsky, Carmichael Water District; Todd Eising, City of Folsom; Lisa Kaplan, City of Sacramento; Chris Hunley, County of Sacramento; Gwynne Pratt, Del Paso Manor Water District; Randy Marx, Fair Oaks Water District; Paul Schubert, Golden State Water Company; Mary Harris, Rio Linda/Elverta Community Water District; Jay Boatwright, Sacramento Suburban Water District; Ted Costa, San Juan Water District; Brett Gray, Natomas Central Mutual Water Company; Nathan Doyle, Agriculture; voted yes. Motion passed.

Ayes- 12
Noes- 0
Abstained- 0
Absent- 4

5. REVISIONS TO POLICY 100.3 (EMPLOYEE COMPENSATION POLICY) AND APPROVE PAST SALARY SCHEDULES

Ms. Reina-Luken provided a presentation on the revisions to Policy 100.3 and the past salary schedules.

A motion was made to approve revisions to Policy 100.3 and approve past salary schedules.

Motion/Second/Carried: Director Schubert moved with a second by Director Pratt

Paul Selsky, Carmichael Water District; Todd Eising, City of Folsom; Lisa Kaplan, City of Sacramento; Chris Hunley, County of Sacramento; Gwynne Pratt, Del Paso Manor Water District; Randy Marx, Fair Oaks Water District; Paul Schubert, Golden State Water Company; Mary Harris, Rio Linda/Elverta Community Water District; Jay Boatwright, Sacramento Suburban Water District; Ted Costa, San Juan Water District; Brett Gray, Natomas Central Mutual Water Company; Nathan Doyle, Agriculture; voted yes. Motion passed.

Ayes- 12
Noes- 0
Abstained- 0
Absent- 4

6. SGA WATER ACCOUNTING FRAMEWORK

Mr. Joseph and Mr. Peifer gave a presentation on the Water Accounting Framework to the Board of Directors.

7. APPOINTMENT OF NOMINATIONS COMMITTEE FOR 2024 SGA OFFICERS

Mr. Schubert presented the nominations of the nomination committee to the Board of Directors which were Paul Selsky as Chair and Chris Hunley as Vice Chair.

A motion was made to approve Paul Selsky as Chair and Chris Hunley as Vice Chair for 2024.

Motion/Second/Carried: Director Schubert moved with a second by Director Ewart

Paul Selsky, Carmichael Water District; Todd Eising, City of Folsom; Lisa Kaplan, City of Sacramento; Chris Hunley, County of Sacramento; Gwynne Pratt, Del

Paso Manor Water District; Randy Marx, Fair Oaks Water District; Paul Schubert, Golden State Water Company; Mary Harris, Rio Linda/Elverta Community Water District; Jay Boatwright, Sacramento Suburban Water District; Ted Costa, San Juan Water District; Brett Gray, Natomas Central Mutual Water Company; Nathan Doyle, Agriculture; voted yes. Motion passed.

Ayes- 12

Noes- 0

Abstained- 0

Absent- 4

8. EXECUTIVE DIRECTOR'S REPORT

Executive Director Peifer referred the Board to his written report. Mr. Peifer pointed out that the SGA received a letter from ECOS requesting a public process be developed for the Annual Report. Mr. Peifer explained to the Board that the Annual Report will be an agenda item for the February Board meeting.

9. DIRECTORS' COMMENTS

Director Ewart discussed a programmatic CEQA document for the City's groundwater program.

Director Schubert thanked Director Marx for his service and wished everyone happy holidays.

Director Harris wished everyone a Merry Christmas.

Director Marx thanked the RWA/SGA staff for the Holiday Social.

ADJOURNMENT

With no further business to come before the Board, Chair Marx adjourned the meeting at 10:21 a.m.

By:

Chair

Attest:

Tom Hoffart
Alternate Board Clerk

Topic: Appoint Tom Hoffart as Acting Board Clerk
Type: Consent Calendar
Item For: Action; Motion to Approve
Purpose: SGA Policy 200.1

SUBMITTED BY: Jim Peifer
Executive Director

PRESENTER: Jim Peifer
Executive Director

EXECUTIVE SUMMARY

This is an action item for the Sacramento Groundwater Authority Board of Directors to appoint an acting Board Clerk while the current Board Clerk is out on maternity leave.

STAFF RECOMMENDED ACTION

A motion to appoint Tom Hoffart as the acting Board Clerk.

BACKGROUND

Policy 200.1 (Rules of Procedure Governing the Sacramento Groundwater Authority) Section 4.05 states:

“The board shall appoint a clerk and Legal Counsel as it deems appropriate. The clerk and Legal Counsel serve at the pleasure of the Board.”

FINDING/CONCLUSION

The Executive Director recommends Mr. Tom Hoffart to the Board as the acting Board Clerk.

Topic: Appoint Tom Hoffart as Controller and Treasurer
Type: Consent Calendar
Item For: Action; Motion to Approve
Purpose: SGA Policy 200.1

SUBMITTED BY: Jim Peifer
Executive Director

PRESENTER: Jim Peifer
Executive Director

EXECUTIVE SUMMARY

This is an action item for the Sacramento Groundwater Authority Board of Directors to appoint the Controller and Treasurer.

STAFF RECOMMENDED ACTION

A motion to appoint Tom Hoffart as the Controller and Treasurer.

BACKGROUND

Policy 200.1 (Rules of Procedure Governing the Sacramento Groundwater Authority) Section 4.03 states:

“(a) The Controller and Treasurer shall be appointed by the governing board of the Authority.”

“(b) The Controller shall cause an independent annual audit of the Authority's finances to be made by a certified public accountant in compliance with California Government Code Section 6505. The Controller shall draw warrants to pay demands against the Authority when the demands have been approved by the Authority or by its authorized representative pursuant to any delegation of authority adopted by the Authority. The Controller shall comply strictly with the provisions of statutes relating to the duties found in Chapter 5 (commencing with Section 6500) of Division 7 of Title 1 of the California Government Code.”

“(c) The Treasurer shall be the depositor and shall have custody of all money of the Authority from whatever source. The Treasurer shall comply strictly with the provisions of statutes relating to the duties found in Chapter 5 (commencing with Section 6500) of Division 7 of Title 1 of the California Government Code.”

FINDING/CONCLUSION

The Executive Director recommends Mr. Tom Hoffart to the Board as the Controller and Treasurer.

Topic: Approve Staff Cost of Living Adjustments in accordance with Policy 100.3
Type: Consent Calendar
Item For: Action; Motion to Approve
Purpose: SGA Policy 100.3

SUBMITTED BY: Jim Peifer
Executive Director

PRESENTER: Jim Peifer
Executive Director

EXECUTIVE SUMMARY

This is an action item for the Sacramento Groundwater Authority Board of Directors to approve revisions to Policy 100.3 (Compensation Policy) Exhibit A attachment for the period beginning January 8, 2024 for staff cost of living adjustments.

STAFF RECOMMENDED ACTION

A motion to approve the proposed Policy 100.3 (Compensation Policy) Exhibit A attachment for staff cost of living adjustments to reflect an increase in staff pay of 3.1 percent.

BACKGROUND

In accordance with Policy 100.3 (Compensation Policy), the United States Department of Labor's Consumer Price Index (CPI) for All Western Small Cities for the 12 months ending in November of each year may be considered for staff pay increases. The CPI for All Western Small Cities for November 2023 was 3.1%. Attachment 1 is the current salary schedule effective July 1, 2023 and Attachment 2 is a revised salary schedule reflecting a 3.1% increase and a proposed effective date of January 8, 2024, which represents the beginning of the first full pay period in 2024.

Historically, it has been RWA's practice to notify the Board of Directors of the new salary schedule in January as part of the Executive Director's Report. Due to a recent CalPERS division of Compliance and Review assessment, RWA was informed that salary schedules must be dually accepted and approved by an action from the Board of Directors and noted in the board meeting minutes.

The RWA and SGA Budgets will be able to accommodate the cost-of-living allowance increase. The estimate for both RWA and SGA budgets for a COLA was 6 percent.

FINDING/CONCLUSION

To maintain consistency with Policy 100.3 staff recommends approving adopting the revised salary schedules.

ATTACHMENTS

Attachment 1 – Current Policy 100.3 Exhibit A Attachment – Effective July 1, 2023

Attachment 2 – Proposed Policy 100.3 Exhibit A Attachment – Effective January 8, 2023

EXHIBIT A
SGA POLICY 100.3

MONTHLY SALARY SCHEDULE OF SGA POSITIONS

July 1, 2023

Classification	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6
Manager of Technical Services	\$15,367	\$15,898	\$16,465	\$17,075	\$17,732	\$18,441
Manager of Strategic Affairs	\$15,367	\$15,898	\$16,465	\$17,075	\$17,732	\$18,441
Manager of Government Relations	\$15,367	\$15,898	\$16,465	\$17,075	\$17,732	\$18,441
Principal Project Manager	\$12,806	\$13,248	\$13,699	\$14,229	\$14,776	\$15,367
Senior Project Manager	\$10,672	\$11,039	\$11,434	\$11,857	\$12,314	\$12,806
Associate Project Manager	\$7,630	\$7,893	\$8,175	\$8,477	\$8,804	\$9,156
Finance & Administrative Services Manager	\$10,697	\$11,066	\$11,462	\$11,886	\$12,343	\$12,837
Executive Assistant	\$6,190	\$6,437	\$6,742	\$6,983	\$7,179	\$7,428
Project Research Assistant II	\$6,369	\$6,623	\$6,877	\$7,132	\$7,388	\$7,642
Project Research Assistant I	\$5,538	\$5,759	\$5,980	\$6,202	\$6,424	\$6,645

Effective July 1, 2023, the Executive Director's compensation is \$21,169 per month.

Exhibit A will be updated annually based on the November Consumer Price Index and/or when a new salary survey is completed. (2023 ranges include COLA per November 2022 CPI Index of 7.2%)

EXHIBIT A
SGA POLICY 100.3

MONTHLY SALARY SCHEDULE OF SGA POSITIONS

January 8, 2024

Classification	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6
Manager of Technical Services	\$15,843	\$16,391	\$16,975	\$17,604	\$18,282	\$19,013
Manager of Strategic Affairs	\$15,843	\$16,391	\$16,975	\$17,604	\$18,282	\$19,013
Manager of Government Relations	\$15,843	\$16,391	\$16,975	\$17,604	\$18,282	\$19,013
Principal Project Manager	\$13,203	\$13,659	\$14,124	\$14,670	\$15,234	\$15,843
Senior Project Manager	\$11,003	\$11,381	\$11,788	\$12,225	\$12,696	\$13,203
Associate Project Manager	\$7,867	\$8,138	\$8,428	\$8,740	\$9,077	\$9,440
Finance & Administrative Services Manager	\$11,029	\$11,409	\$11,817	\$12,254	\$12,726	\$13,235
Executive Assistant	\$6,382	\$6,637	\$6,951	\$7,199	\$7,402	\$7,658
Project Research Assistant II	\$6,566	\$6,828	\$7,090	\$7,353	\$7,617	\$7,879
Project Research Assistant I	\$5,710	\$5,938	\$6,165	\$6,394	\$6,623	\$6,851

Effective July 1, 2023, the Executive Director's compensation is \$21,169 per month.

Effective July 1, 2024, the Executive Director's compensation is \$22,650 per month.

Exhibit A will be updated annually based on the November Consumer Price Index and/or when a new salary survey is completed. (2024 ranges include COLA per November 2023 CPI Index of 3.1%)

Topic: Sustainable Groundwater Management Act Groundwater Sustainability Plan Implementation and Round 2 Grant Award

Type: New Business

Item For: Action/Discussion

Purpose: [SGA Policy 300.1](#)

SUBMITTED BY:	Trevor Joseph, P.G., C.Hg. Manager of Technical Services	PRESENTER:	Trevor Joseph, P.G., C.Hg. Manager of Technical Services
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EXECUTIVE SUMMARY

This is an item for the Sacramento Groundwater Authority Board of Directors to authorize the Executive Director to enter into three separate agreements for consulting services with GEI Consultants, Woodard Curran, and West Yost to advance the work under the recently received Sustainable Groundwater Management (SGM) grant from DWR.

STAFF RECOMMENDATION ACTION:

A motion to waive SGA Policy 300.1 and authorize the Executive Director to enter into three separate agreements for consulting services with GEI Consultants, Woodard Curran, and West Yost.

BACKGROUND

These agreements will support SGA's ability to complete the following components of the Sustainable Groundwater Management (SGM) Implementation Grant (Grant) provided to the SGA by the California Department of Water Resources (DWR). The consultants' proposals including scope and fee are attached and the work is summarized here:

- GEI Consultants – Components 4 (Monitoring Well Installation) and 5 (Monitoring Well/Supply Well Installation) in the amount of \$963,831.
- Woodard Curran - Component 7 (CoSANA Model Updates) in the amount of \$776,000.
- West Yost - Component 3 (Water Quality Study) in the amount of \$230,800.

SGA Policy 300.1 governs Architectural and Engineering Services Selection Policy. Architectural and engineering services contracts with a maximum price of more than \$50,000 must be obtained by a competitive proposal process by issuance of a Request for Proposals or the issuance of a Request for Qualifications, as determined by the Executive Director, and a contract for such services will be

Agenda Item 4

subject to approval of the Board of Directors. However, the Board of Directors may waive or amend the competitive proposal process in cases where an engineering firm has satisfactorily performed the previous stage of a project, has acquired extensive background and working knowledge of the work to be performed, is a highly recognized authority in the field or area of work to be performed, or is the only known available highly recognized authority.

In this instance, SGA staff recommends waiving the competitive selection process and authorizing the Executive Director to enter into three separate agreements for consulting services with GEI Consultants, Woodard Curran, and West Yost to facilitate the timely implementation of activities to complete portions of the SGM Grant provided to the SGA by the California DWR. It should be noted that all work funded under the Grant must be completed by April 15, 2026. Given the short timeframe to complete the work and the qualifications of the consultants, staff recommends waiving the competitive bid process under Policy 300.1.

GEI Consultants has an extensive background and working knowledge of many components of the Grant and SGA's role in SGM Act implementation as GEI Consultants aided SGA in preparing the monitoring program and hydrogeological information in the successful Northern American Subbasin (NASb) Groundwater Sustainability Plan (GSP). For this reason, GEI Consultants has acquired extensive background and working knowledge of the work to be performed.

Similarly, Woodard Curran has an extensive background and working knowledge of many components of the Grant and SGA's role in SGM Act implementation as Woodard Curran aided SGA in preparing the water budget and water modeling elements of the successful NASb GSP.

Finally, West Yost has an extensive background and working knowledge of many components of Sacramento Suburban Water District's (SSWD) production well network, groundwater quality conditions, and hydrogeological information. The Water Quality Study within the Grant is focused in the SSWD area of the NASb and therefore West Yost's experience and knowledge will directly benefit the area of work to be performed.

FINDING/CONCLUSION

Due to the unique qualifications of each of these firms based on the specific areas of focus and need for multiple components of the Grant, it would benefit SGA to forgo the competitive award process otherwise required by SGA Policy 300.1. Therefore, SGA staff recommend the SGA Board authorize the Executive Director to enter into three separate agreements for consulting services with GEI Consultants, Woodard Curran, and West Yost.

ATTACHMENTS

Attachment 1- Proposal from GEI Consultants

Attachment 2- Proposal from Woodard Curran

Attachment 3- Proposal from West Yost

February 1, 2024

Consulting
Engineers and
Scientists

Mr. Trevor Joseph
Manager of Technical Services
Sacramento Groundwater Authority
2295 Gateway Oaks Drive, Suite 100
Sacramento, CA 95833

Subject: Proposal for Advancing North American Subbasin Sustainable Groundwater Management

Dear Mr. Joseph:

GEI Consultants, Inc. (GEI) has prepared this proposal to assist the Sacramento Groundwater Authority (SGA) to complete several projects (components) to advance sustainable groundwater management in the North American Subbasin (NASb or Subbasin). SGA received grant funding from the California Department of Water Resources (DWR) for seven components. This proposal provides a scope of services, budget and schedule for: Component 4 - Groundwater Monitoring Well Construction, and Component 5 – Groundwater Monitoring Well/Emergency Supply Well. Optional services may be provided to assist with Component 7 - CoSANA Model Upgrades and Enhancements. Other components will be performed by SGA, subcontracted through Placer County or other consultants. For correlation of this proposal to grant components, each component has been identified as a phase correlating with the component number, therefore the phase numbering are not sequential.

Scope of Services

The following tasks describe GEI's approach to completion of the two identified components and the one optional component.

Component 4 (Phase 4): Groundwater Monitoring Wells Construction

Component 4 will enhance the Subbasin's monitoring network by installing a minimum of seven dedicated monitoring wells. The wells will enhance the GSAs understanding of groundwater levels near priority Groundwater Dependent Ecosystems (GDEs) areas, near areas with high numbers of domestic wells and surface water depletion. The proposed seven monitoring well locations (GDE MW-100, GDE MW-101, GDE MW-102, GDE MW-103, CLGMW-100, CLGMW-101, SWD MW-101), are shown on **Figure 4-1**.

The scope of the work will be to drill five, 8-inch diameter hollow stem augers 40 feet below ground surface (bgs) and collect samples every 5 feet, and two monitoring wells to depths of 140 to 160 feet bgs using the mud rotary drilling method. A geologist will collect and classify samples of the cuttings in accordance with the Unified Soil Classification System per ASTM D2488 and once the total depth is reached geophysical surveys will be performed in the mud rotary borings. A final well design will be prepared. The well will be constructed 2-inch diameter PVC Schedule 40 well casing and screens. The wells will be fully developed using air-lift and pump and surge methods. Water quality samples will be obtained and analyzed for general minerals and drinking water metals. The wells will be

secured with above or below ground security vaults surrounded by slabs and four bollards (surrounding above ground installations).

Task 4.1: Administration

This task will involve the preparation of invoices for compilation in reimbursement request packages and preparation of Quarterly Progress Reports showing progress made during the month, next steps for the following billing cycle, and the status of both schedule and budget. Activities under this task will also include contracting and contract management and preparation of a component completion report at the end of project construction. This task will be on-going throughout the duration of this component.

Deliverables

- Component reporting to be included in Quarterly Progress Reports and invoices
- Draft and Final Component Completion Report

Task 4.2: Land Owner Access Agreements/Site Access

The proposed seven monitoring wells, as shown on **Figure 4-1**, will be constructed on lands either owned by or within existing easements of the NASb GSA participating agencies. No lands will be purchased for this project.

GEI will assist SGA by meeting with GSA representatives in the field to confirm the locations of the proposed wells. As necessary, develop CEQA documentation.

Assumptions:

SGA will provide public notice of the meeting, develop meeting minutes, and post on the NASb web-site.

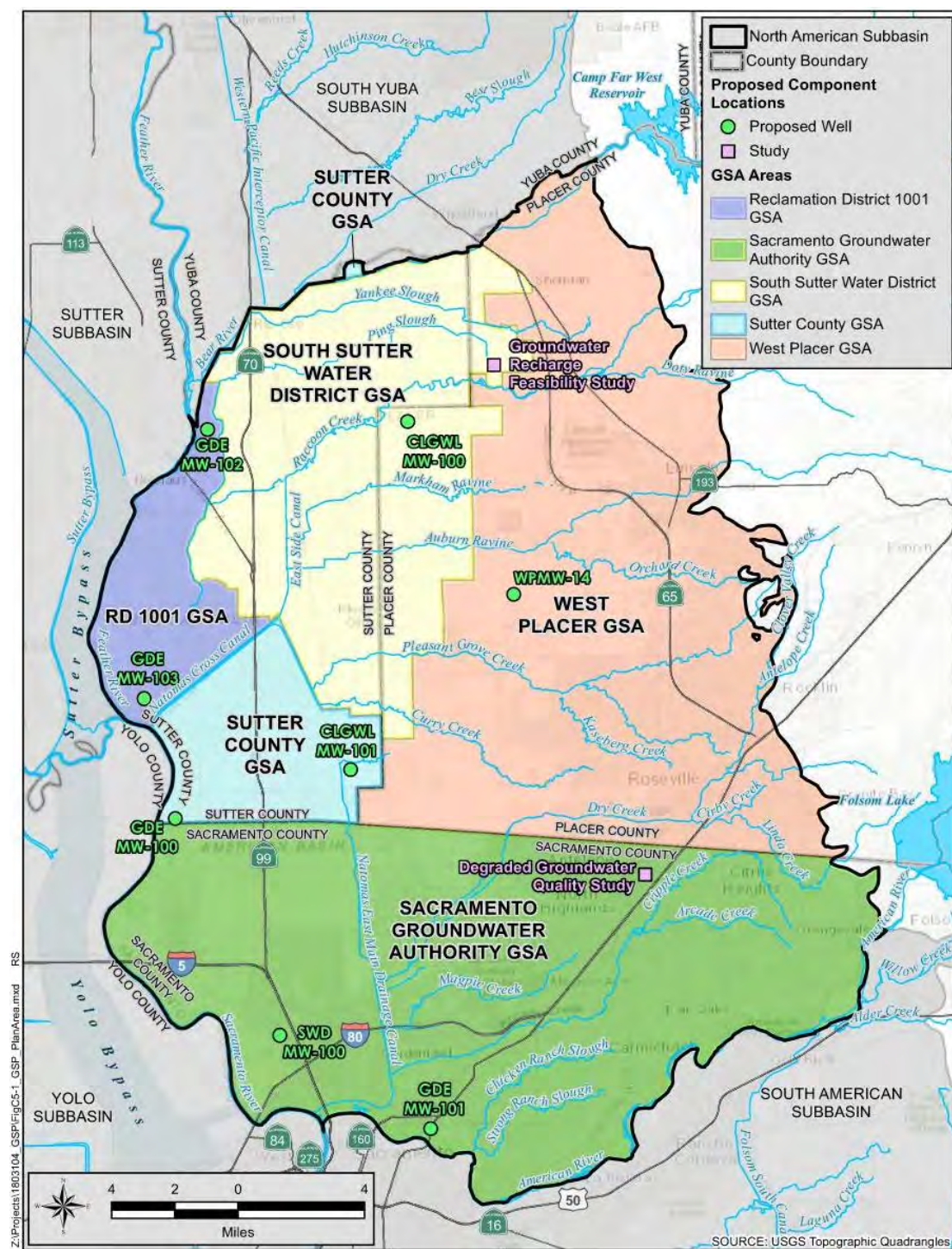
Deliverables:

- Landowner access agreement(s)

Task 4.3: Monitoring Well Planning

GEI will conduct planning and design activities associated with the monitoring well installations within the Subbasin and acquire necessary permits required for the installation of the wells. Prepare well permit applications, develop plans and specifications, prepare well location maps, and assemble bid documents and release for competitive bidding. As necessary, develop CEQA documentation (Categoric Exemptions).

Figure 4-1. Monitoring Well Locations



Assumptions:

Counties where the monitoring wells will be located may perform the CEQA assessment and document. GEI will subcontract the drilling contractor and surveyors directly.

Deliverables:

- CEQA documentation – Categorical Exemption, as necessary.
- Monitoring well construction bid documents including maps of approved locations
- Bidding results, Notice of Award, and Notice to Proceed and contractor selection
- Copies of well permits

Task 4.4: Monitoring Well Construction

GEI's subcontractor will install the seven monitoring wells identified in Task 4.3. GEI will oversee the contractor's activities and photo-document the pre, during and post construction activities and develop a daily construction diary. We will prepare any change orders and provide summaries of the change orders in the associated Quarterly Progress Reports. GEI staff will log the drill cuttings, interpret geophysical logs from the two mud rotary borings, prepare final designs, prepare record drawings, develop the wells, collect water quality samples and analyze for general minerals and drinking water metals, and secure the wells, and survey the locations and elevations of the wells. The drilling contractor will prepare and submit to DWR Well Completion Reports.

Deliverables:

- Photo documentation included within the Quarterly Progress Reports
- Monitoring Well Completion Report

Task 4.5: Groundwater Level Monitoring

Upon completion of the monitoring wells constructed under this grant, they will be added to the NASb monitoring networks and groundwater levels will be monitored on a monthly basis by GEI for up to 12 months after the wells are completed and the measurements uploaded to DWR's Monitoring Network Module (MNM) and to the NASb's Data Management System (DMS) through December 2025.

Assumptions:

- GEI staff will monitor groundwater levels monthly for up to 12 months after the wells are constructed, and thereafter the GSAs where the wells are located will take over monitoring through the end of the grant, through December of 2025.

Deliverables:

- Groundwater levels reported to the MNM database through December 2025.

Task 4.6: Stakeholder Engagement and Community Outreach

GEI will provide technical support to develop presentation materials for SGA's use to engage interested parties and stakeholders at one public meeting.

Assumptions:

SGA will provide public notice of the meetings, develop meeting minutes, and post on the NASb web-site.

Deliverables:

- Presentation and handout materials, as applicable
- Attend meetings

Component 5 (Phase 5): Monitoring/Emergency Supply Well

In 2022, a well in the Placer County portion of the NASb was reported as being dry, but was resolved by lowering the pump. This well is located in a one-mile square area that has 45 domestic wells, according to DWR. The NASb has two dedicated monitoring wells located about 2 miles to the east and one residential well located about 5 miles to the west of the dry well. The monitoring wells to the east are showing flat trends in the groundwater surface. The monitoring well to the west is showing a downward decline of 40 feet since 2020.

The West Placer GSA, as supported by the other GSAs managing the Subbasin, has developed this component to not only aid in filling a data gap but provide a proactive solution in the event additional domestic users begin to experience negative effects associated with groundwater level declines. Therefore, this component has multiple benefits as it will serve as a monitoring well where there is a data gap associated with the SGMA sustainability indicator chronic lowering of groundwater levels and for emergency supply purposes.

The scope of the work will be to drill 12-inch diameter pilot hole to a depth of 200 feet, using the mud rotary drilling method. A geologist will collect and classify samples of the cuttings in accordance with the Unified Soil Classification System per ASTM D2488 and once the total depth is reached a geophysical survey will be performed. A final well design will be prepared. The well will be constructed to a depth of 190 feet below ground surface (bgs), with 8-inch PVC Schedule 40 well casing and screens. The preliminary design is for well screens to be placed between 120 and 180 feet bgs with a 110-foot sanitary seal. The well will be fully developed using air-lift and pump and surge methods. Water quality samples will be obtained and analyzed for Title 22 drinking water elements. The well will be secured with a 12-inch diameter vault and surround with 6 x 6 foot by 6-inch-thick concrete slab and four bollards.

Task 5.1: Administration

This task will involve the preparation of invoices for compilation in reimbursement request packages and preparation of Quarterly Progress Reports showing progress made during the month, next steps for the following billing cycle, and the status of both schedule and budget. Activities under this task will also include contracting and contract management and preparation of a component completion report at the end of project construction. This task will be on-going throughout the duration of this component.

Deliverables:

- Quarterly Progress Reports and invoices
- Draft and Final Component Completion Report

Task 5.2: Monitoring/Emergency Well Planning

GEI will conduct planning and design activities associated with the monitoring well installation and acquire necessary permits required for the installation of the well. We will prepare well permits applications, develop plans and specifications, prepare well location

map, and assemble bid documents and release for competitive bidding. A National Pollutant Discharge Elimination System (NPDES) permit is not anticipated to be required as water from the well will not be discharged to surface water.

Assumptions:

Placer County will perform the CEQA analyses. Placer County will assist in the well site selection by assessing easements suitable for well construction. Drilling contractors and surveyors will be contracted by GEI.

Deliverables:

- CEQA documentation, if required, Notice of Exemption (NOE).
- Monitoring well construction bid documents including maps of approved locations
- Bidding results
- Notice of Award
- Notice to Proceed

Task 5.3: Monitoring/Emergency Well Construction

GEI's subcontractor will install the one monitoring/emergency monitoring well identified in Task 5.2. GEI will oversee the contractor's activities and photo-document the pre, during and post construction activities and develop a daily construction diary. We will prepare any change orders and provide summaries of the change orders in the associated Quarterly Progress Reports. GEI staff will log the drill cuttings, interpret geophysical logs, prepare final designs, prepare record drawings, develop the wells, collect water quality samples and analyze for general minerals and drinking water metals, and secure the wells, and survey the locations and elevations of the wells. The drilling contractor will prepare and submit to DWR Well Completion Reports.

Assumptions:

GEI will subcontract the drilling contractor and surveyors directly. The project does not include outfitting of the well with a pump.

Deliverables:

- Copies of approved well permits
- Photo documentation included within the Quarterly Progress Reports
- Copy of Well Completion Reports (WCRs filed with DWR)
- Monitoring Well Completion Report

Task 5.4: Monitoring/Assessments

GEI will add the newly constructed well to DWR's Monitoring Network Module (MNM) and to the NASb's Data Management System (DMS) and will upload groundwater measurement through December 2025, to allow for preparation and submittal of the Project Completion Report. GEI will measure groundwater levels for up to 12 months after the well is completed.

Assumptions:

- GEI staff will monitor groundwater levels monthly for up to 12 months after the wells are constructed, and thereafter the Placer County staff will take over monitoring through the end of the grant, through December of 2025.

Deliverables:

- MNM upload tables

Task 5.5: Stakeholder Engagement and Community Outreach

Provide technical support to develop presentation materials for SGA's use to engage interested parties and stakeholders and up to two public meeting with local residents to obtain feedback and participation in siting and benefits of this monitoring/emergency supply well. Share the findings of the drilling and water quality analyses with local residents in a public meeting.

Assumptions:

- SGA will provide public notice of the meeting, develop meeting minutes, and post on the NASb web-site.

Deliverables:

- Develop presentation and handout materials, as applicable
- Attend public meetings

Component 7 (Phase 7): CoSANA Groundwater Model Update (Optional)

In 2021, Woodard and Curran (W&C) prepared a groundwater model for the Consumnes, South American and North American (CoSANA) subbasins to develop water budgets for each of the subbasins. The goals of the CoSANA model upgrades and feature enhancements are to further import the data sets and assumptions which will result in further improve of the simulation capabilities of the model and proposed projects by NASb. The purpose of this task is to support W&C efforts, GEI will:

- Provide requested data sets and review assumptions
- Review model output and provide comments
- Review the model documentation report and provide comments

Assumptions:

- No work will be performed prior to SGA contract manager approval

Deliverables:

- As specified by SGA contract manager and remaining within the budgeted amount

Budget

The budget for the components described above was developed on a time and materials basis with a not-to be exceeded cost as shown in the table below. GEIs budget is below the grant agreement budget by \$19,000, as a contingency to accommodate budget increase from the various activities.

Description	Groundwater Monitoring Well Construction Component 4	Groundwater Monitoring Well/Emergency Supply Well Component 5	CoSANA Model Update Component 7 (Optional)	Subtotal
(a) Component Administration	\$29,511	\$24,005	\$0	\$54,000
(b) Environmental / Engineering / Design	\$72,912	\$26,764	\$0	\$100,000
(c) Implementation / Construction	\$437,780	\$269,189	\$0	\$707,000
(d) Monitoring / Assessment	\$39,173	\$24,084	\$0	\$63,000
(e) Engagement / Outreach	\$18,479	\$11,933	\$0	\$30,000
GEI Labor	\$243,560	\$130,785	\$10,000	\$384,345
Subcontractors	\$354,295	\$225,191	\$0	\$579,486
SUBTOTAL COST (Components 2 through 5):	\$ 597,855	\$ 355,976		\$953,831
SUBTOTAL COST (Optional Component 7):			\$0	\$10,000
TOTAL PROJECT				\$963,831

As shown the costs for subcontractors is approximately equal to that of GEI's effort. Because DWR does not allow for markup of subcontractor invoices, timely payment (within 30 days of receipt of our invoices) is required, which would be a special provision to our existing professional services agreement.

Assumptions:

- Subcontractor invoices shall not be marked up and there will be no charges for travel or expenses.
- Drilling contractor bids will be within the budget estimates provided in the grant otherwise the scope of work may be adjusted to remain within budget.

Schedule

SGA signed the grant agreement on January 18, 2024 and is proceeding with contracting of consultants with an early start date of early February, 2024. Draft Project Component Completion Reports are to be provided to DWR by January 2026 for their review and project close by April 15, 2026. The attached schedule is proposed by GEI.

Categories	Start Date	End Date
Component 4: Groundwater Monitoring Well Construction		
Administration	2/1/2024	3/31/2026
Environmental/Engineering/Design	3/1/2025	5/1/2024
Implementation/Construction	6/1/2024	2/28/2025
Monitoring/Assessment	3/1/2025	3/1/2026
Engagement/Outreach	2/1/2024	8/30/2025
Component 5: Monitoring/Emergency Supply Well		
Administration	2/1/2024	3/31/2026
Environmental/Engineering/Design	3/1/2025	6/1/2024
Implementation/Construction	6/30/2024	12/1/2024
Monitoring/Assessment	12/1/2024	1/31/2026
Engagement/Outreach	2/1/2024	3/31/2026
Component 7: CoSANA Model Upgrades and Enhancement		
As-Needed	TBD	TBD

Please call Richard Shatz at 916.631.4566 (rshatz@geiconsultants.com) if you have any questions pertaining to this proposal.

Regards,

GEI Consultants, Inc.

A handwritten signature in blue ink that reads "Michael J. Cornelius".

Michael Cornelius, PG6222
Senior Geologist

A handwritten signature in blue ink that reads "Richard W. Shatz".

Richard W. Shatz, CHG 84
Senior Hydrogeologist

Via Electronic Mail

February 1, 2024

Trevor Joseph
Manager of Technical Services
Regional Water Authority, CA
5620 Birdcage Street
Suite 180
Citrus Heights, CA 95610

Re: CoSANA Model Upgrade and Enhancements

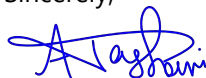
We are pleased to present this scope of work and budget for the **C**osumnes, **S**outh **A**merican, **N**orth **A**merican (CoSANA) Model Upgrade and Enhancements Project, which was included as Component 6 of the Sustainable Groundwater Management Act (SGMA) Implementation Grant that was awarded to the North American Subbasin (NASb or Subbasin) in January 2024.

The CoSANA Model Upgrade and Enhancements Project will enhance and upgrade physical and modeling features for the CoSANA model. CoSANA model was developed as an integrated water resources model for the entirety of the American River Basin (North and South) and Cosumnes Subbasins and has been used to support development of the NASb, SASb, and Cosumnes Groundwater Sustainability Plans (GSP). The goals of the upgrades and feature enhancements are to fill data gaps and to improve the accuracy of CoSANA model representation of the NASb subbasin hydrology and hydrogeology, so that the model results can better support implementation of the GSP. Since the upgrades are focused on the NASb part of the model, there will be sufficient refinement in a buffer area south of the American River to ensure that the NASb area is not impacted by lack of upgrades in the SASb area.

The CoSANA model upgrades and enhancements will enable the model to support proposed projects and management actions for the NASb GSP 5-Year update. Model upgrades and enhancements will utilize the most recent data and understanding of the Subbasin conditions to increase the accuracy of model results. The upgrades and enhancements would also address comments from the stakeholder community on the simulation capabilities, assumptions, and results of the model.

We are looking forward to continuing to support RWA and the NASb GSAs as the Subbasin moves towards sustainable management.

Sincerely,



Ali Taghavi, Ph.D., P.E.

Vice President

WOODARD & CURRAN

SCOPE OF WORK

CoSANA Model Upgrade and Enhancements

A. Introduction

The Cosumnes-South American-North American (CoSANA) model is a regional integrated water resources model developed as an upgrade and enhancement of the previously developed Sacramento Area Integrated Water Resources Model (SaciWRM). The enhanced integrated groundwater and surface water simulation capabilities afforded by CoSANA are intended to assist in a broad range of water management activities in the Sacramento Region. CoSANA is built on the Integrated Water Flow Model (IWFM) framework, which is specifically designated in Sustainable Groundwater Management Act (SGMA) Groundwater Sustainability Plans (GSP) regulations as being supported by the California Department of Water Resources for water budget development within GSPs. The model is developed with specific features to support development of sustainable groundwater management strategies and policies and compliance with SGMA, as well as to support the planning and implementation of regional conjunctive use and water banking efforts and other water management activities.

The CoSANA Model Upgrade and Enhancements Project will enhance and upgrade physical and modeling features for the CoSANA model. CoSANA model was developed as an integrated water resources model for the entirety of the American River Basin (North and South) and Cosumnes Subbasins and has been used to support development of the NASb, SASb, and Cosumnes Groundwater Sustainability Plans (GSP). The goals of the upgrades and feature enhancements are to fill data gaps and to improve the accuracy of CoSANA model representation of the NASb subbasin hydrology and hydrogeology, so that the model results can better support implementation of the GSP. Since the upgrades are focused on the NASb part of the model, there will be sufficient refinement in a buffer area south of the American River to ensure that the NASb area is not impacted by lack of upgrades in the SASb area.

The CoSANA model upgrades and enhancements will enable the model to support proposed projects and management actions for the NASb GSP 5-Year update. Model upgrades and enhancements will utilize the most recent data and understanding of the Subbasin conditions to increase the accuracy of model results. The upgrades and enhancements would also address comments from the stakeholder community on the simulation capabilities, assumptions, and results of the model.

CoSANA Model Upgrade and Enhancement Project would enhance and upgrade the NASb portion of the model and a buffer zone in the South American Subbasin (SASb) as part of an effort that would be coordinated regionally with other subbasins. Coordination will occur both at model-wide (interbasin) and subbasin-scales (intrabasin). The resulting model will continue to serve the SGMA needs of all three subbasins, with more enhancements and refinements focused in the NASb area.

B. Scope of Work

Note that this scope of work covers updates relevant to the NASb portion of the CoSANA model plus a buffer zone in the SASb portion of the model.

Task 1: Data Gap Analysis and Enhancements to Integrated Water Resources Model

For the North American Subbasin, additional data will be collected and analyzed for incorporation into the model for model enhancements. Data collection efforts and model enhancements will focus on both subbasin specific as well as the coordinated model-wide improvements. Data collection efforts and model enhancements will include a number of activities as listed below. The final list of enhancements will be identified and prioritized based on Regional Water Authority (RWA) and NASb GSAs priorities and the allocated budget.

- Time-series data collection, development and model updates:
 - Climate change hydrology updates
 - Managed wetlands and riparian vegetation updates
 - Land use updates
 - Update evapotranspiration (ET) data
 - Upgrade model boundary conditions
 - Upgrade simulation of wastewater collection network
 - Upgrade demand, supply, and return flows data for urban and agricultural water districts and other large parcels not served by water agencies
 - Update hydrology data, as needed
 - Improve inflows to tributary streams
 - Update surface water delivery and stream flow data, as needed
 - Update municipal groundwater production and remediation extraction rates
- Spatial data collection, analysis and updates:
 - Update soils data using Soil Survey Geographic Database (SSURGO)
 - Analyze and utilize available Airborne ElectroMagnetic (AEM) survey data , as needed
 - Update stream channel geometry based on LiDAR data
 - Develop and refine stream-stage discharge
 - Map spatial variation of impervious surfaces
 - Update spatial location of municipal production and remediation extraction and injection wells
- SASb local refinements for a buffer zone south of NASb boundary

Task 2: Calibration and Refinement of Integrated Water Resources Model

Model calibration will be performed to refine model parameters using the historical period from 1995-2023 at the NASb and a buffer zone in the SASb. The calibration activities will be performed both at the NASb and across the NASb and SASb boundary as part of the coordinated calibration in the buffer zone to minimize effects on the NASb area. The NASb targeted calibration improvements will include calibration to improve groundwater level trends in key areas, including

eastern foothills, Natomas, and the McLellan/Sac Suburban areas. Calibration activities will include the followings:

- Collect and process all post-2018 groundwater level data for over 400 observation wells in the North American Subbasin and parts of SASb and collect stream gage data
- Set calibration targets
- Develop and calibrate water budgets for the land surface, groundwater and stream systems
- Perform calibration of land surface processes including:
 - Rainfall runoff, storm water runoff, and surface water systems
 - Root zone parameters using higher resolution soils data developed in Task 1
 - Streambed parameters, including streambed conductivity, wetter perimeter, and bed thickness, and overall streambed conductance
- Perform calibration of groundwater flow system including:
 - Aquifer parameters using hydrogeological data developed in Task 1
 - Vertical hydraulic conductivity utilizing available multi-completion well data
- Perform automated calibration using Parameter Estimation (PEST) to fine tune a set of select parameters for land surface, unsaturated and aquifer systems
- Perform sensitivity and uncertainty analysis using the recalibrated version of the model, for a set of key parameters
- Coordinate calibration process with neighboring subbasins

Task 3: Update Model Baseline Conditions and Perform Sustainability Scenarios

Using the updated, calibrated, historical CoSANA model from Task 2, a new set of GSP baseline models will be developed. These models will utilize the most up to date demand and supply data, and projections for future growth in the NASb, including expected developments in the Placer County and Natomas areas. Baseline models to be developed are:

- Updated Current Conditions Baseline model
- Updated Projected Conditions Baseline model
- Updated Projected Conditions Baseline with Climate Change model

Following development of updated baseline conditions models, a preliminary sustainability scenario will be developed to assess potential NASb system changes. The assumptions for the sustainability scenario will be developed in coordination with RWA staff.

Task 4: Project Management and Coordination

This task will include the overall project management activities and support. W&C will conduct project quality control, prepare monthly progress reports and invoices, and manage the project schedule and budget.

C. Deliverables

Task 1 Deliverables:

- Screen shots of updated model input data

Task 2 Deliverables:

- Technical Memo on Model input and output files for recalibrated model
- Updated model documentation

Task 3 Deliverables:

- Model input and output files for updated GSP baseline models
- Technical memorandum documenting model input assumptions and analysis

Task 4 Deliverables:

- Monthly invoices and progress reports

D. Schedule

Project Start Date = March 1, 2024

Project Completion Date = March 31, 2026

CoSANA Model Upgrade & Enhancement for North American Subbasin										Schedule February 1, 2024
Tasks	2024				2025				2026	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
CoSANA Model Refinement										
Task 1 Data Gap Analysis and Enhancements to Integrated Water Resources Model										
Task 2 Model Calibration and Refinement of Integrated Water Resources Model										
Task 3 Update Model Baseline Conditions and Perform Sustainability Scenarios										

E. Budget

CoSANA Model Upgrade & Enhancement for North American Subbasin		Fee Estimate February 1, 2024
Tasks	Total	
	Total Fee	
CoSANA Model Upgrade & Enhancement		
Task 1 Data Gap Analysis and Enhancements to Integrated Water Resources Model	\$306,000	
Task 2 Model Calibration and Refinement	\$198,060	
Task 3 Update Model Baseline Conditions and Perform Sustainability Scenarios	\$223,570	
Task 4 Project Management and Coordination	\$48,370	
TOTAL	\$776,000	



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westyost.com

February 1, 2024

SENT VIA: EMAIL

Trevor Joseph
Manager of Technical Services
Sacramento Groundwater Authority
2295 Gateway Oaks Dr #100
Sacramento, CA 95833

SUBJECT: Proposal for Professional Services for Groundwater Quality Degradation Study Pursuant to Component 3 of DWR Grant Agreement Number 4600015622

Dear Trevor:

West Yost is pleased to present this proposal for professional services to the Sacramento Groundwater Authority (SGA). This proposal provides our scope of services, estimated budget, and schedule to conduct a Groundwater Quality Degradation Study (Study) that addresses Component 3 of the SGA grant agreement with the California Department of Water Resources (DWR). The proposal is organized into the following sections:

- Project Understanding
- Approach
- Scope of Services
- Budget
- Schedule
- Project Team

PROJECT UNDERSTANDING

The SGA is one of five Groundwater Sustainability Agencies (GSAs) that have worked cooperatively in the preparation of the North American Subbasin (NASb or Subbasin) Groundwater Sustainability Plan (GSP). On behalf of the NASb GSAs, SGA submitted a grant application to DWR under the Sustainable Groundwater Management Act (SGMA) Round II grants process. The SGA grant application was focused on “Advancing NASb Sustainable Groundwater Management” and identified seven work components. Component 3 proposed completing a Groundwater Quality Degradation Study. The grant application was approved by DWR and Grant Agreement 4600015622 (Agreement) was executed on January 18, 2024. Per the Agreement, Component 3 consists of the following:

“The study will evaluate the Tetrachloroethylene (PCE) vertical and horizontal extent in lower western Placer and northeastern Sacramento counties and to identify those wells that could be affected in the future. In addition, this study will identify the potential need for well head treatment, areas more favorable to locate new wells, and the potential effects of conjunctive use on the migration of PCE and using aquifer storage and recovery (ASR) wells.

This study is intended to be a “desk-top” study with no field investigations. This study is not intended to identify potential responsible parties, assess contamination from Aerojet or former Mather of McClellan AFB which are being remediated and are under regulatory agency direction.”

The Agreement describes the technical work of Component 3 under two tasks:

Task 1: Review Existing Studies

“Review and evaluate other existing reports regarding PCE in the study area. Review well completion reports to evaluate the vertical extent of contamination and create cross sections to display the vertical and horizontal extent. Identify downgradient wells within a six-mile radius with similar well screen intervals.”

Task 2: Groundwater Modeling Forecast

“Assess the future migration of PCE by using particle tracking in the [Cosumnes, South American, and North American Groundwater Subbasins] CoSANA model from existing contaminated wells and identify those wells that could be affected into the future with projected water transfers and climate change to develop baseline conditions. Perform additional scenarios (minimum of two) to assess PCE migration under the scenario of operating the Sacramento Regional Water Bank (SRWB).”

Per the Agreement, the remaining scope of Component 3 consists of Component Administration and Engagement/Outreach. Component Administration involves SGA’s reporting to the DWR on the status of work under the Agreement and is not part of this proposal. Engagement/Outreach is included as part of this proposal and per the Agreement consists of:

“Engage interested parties and stakeholders at a public meeting prior to initiation of the study to gain feedback and participation in the study objectives and after the study is completed to provide the results and respond to questions.”

Per the Agreement, Component 3 deliverables consist of:

- Technical Memorandum (TM) documenting a list of municipal water supplies that are potentially at risk for future PCE contamination
- TM documenting the vertical and horizontal extent of PCE contamination
- Hand out materials, as applicable, for two stakeholder meetings

APPROACH

Our proposed approach is to meet the intent of Component 3 of the Agreement while being responsive to SGA and stakeholder agency goals and objectives and listen to and incorporate the stakeholder agencies’ local knowledge of their wells, groundwater conditions near their wells, and impacts to their wells by PCE. We will initiate the Study by organizing and participating in a meeting with SGA and stakeholder agencies (initial meeting). This initial meeting will be used to review, discuss, and refine the scope of work presented in this proposal. The outcomes of the meeting will be documented in the meeting minutes and in a letter to SGA formally requesting approval of the scope refinements and any

corresponding adjustments to the task-level budgets. During this process, we will work with SGA to maintain the overall budget within the originally agreed to amount.

After the initial meeting, we will assemble the available data and information and develop hydrogeologic and PCE fate and transport conceptual models. These will provide a description of the subsurface processes under which municipal wells draw in PCE. The conceptual models will consist of maps, cross sections, tabulated data and parameters, simplified schematics, and written descriptions. The conceptual models are described separately in Tasks 4 and 5 of the scope of services below for clarity but will be integrated in the work presented to SGA and the stakeholder agencies.

The integrated conceptual model will be used to assess threats to existing and future municipal wells. The threat assessment will identify:

- Affected and potentially affected municipal wells, including downgradient wells within a six-mile radius with similar well screen intervals
- Wells needing or potentially needing wellhead treatment
- Areas favorable for new wells, including ASR wells
- Potential effects of conjunctive use, including ASR, on the migration of PCE

The threat assessment will include analysis of capture zones around municipal wells. We propose to conduct the capture zone analysis based on basin-scale observed groundwater elevation contour maps on which drawdown from the municipal wells is superimposed. We propose developing the drawdown for each municipal well based on its observed pump test results and other operational input provided by the stakeholder agencies.

As noted above in the Study description, the use of the CoSANA IWFM was assumed in the grant application for delineating capture zones and particle tracking. The model is a large, basin-scale model that is generally best suited for assessing future climate change and basin-scale operations, such as conjunctive use scenarios. We anticipate that the CoSANA IWFM model's conceptualization, spatial discretization, and temporal discretization may not be sufficiently detailed at the Study scale to achieve all the Study goals put forth by the stakeholder agencies. We have therefore assumed it will not be used for particle tracking in this proposal. That said, key information from previous runs of the model can be used to support our alternative approach. A possible path forward that includes assessments using the CoSANA IWFM would be to conduct the CoSANA assessments of future climate change and basin-scale conjunctive use as a separate project from the Groundwater Quality Degradation Study (this is being done by other consultants to SGA) and merge the findings with this Study when both studies are at or near completion. This approach also has the advantages of not duplicating CoSANA modeling efforts and enabling completion of the Groundwater Quality Degradation Study on a timeline not dependent on the CoSANA modeling effort. In implementation, we can evaluate the CoSANA IWFM application's suitability for use in delineating capture zones using particle tracking and adjust the approach and scope accordingly at the direction of SGA and the stakeholder agencies.

We will organize and participate in a meeting with SGA and stakeholder agencies to present the methods, results, and preliminary conclusions of the Study after completing the threat assessment. The purpose of the meeting will be to inform SGA and the stakeholder agencies and receive their input on the Study prior to completing the draft Study report.

We will complete the Study by preparing a draft report, meeting with SGA and stakeholder agencies to present the draft report, and subsequently finalizing the report in response to comments received from SGA and the stakeholder agencies.

SCOPE OF SERVICES

Our proposed scope of services consists of the following tasks:

- Task 1. Project Management and Quality Assurance/Quality Control (QA/QC)
- Task 2. Stakeholder Meetings
- Task 3. Compile Existing Information
- Task 4. Prepare Hydrogeologic Conceptual Model
- Task 5. Prepare Conceptual Model for Contaminant Transport
- Task 6. Assess Threats to Existing and Future Municipal Wells
- Task 7. Prepare Groundwater Quality Degradation Study Report

Task 1. Project Management and QA/QC

Project management for the Study includes general project management of controlling budget and schedule, a kickoff meeting with the SGA project team, monthly progress updates, and managing work product quality. Any proposed refinements or adjustments to the scope of work resulting from input from SGA or the stakeholder agencies, at the initial meeting in Task 2 or otherwise, will be developed under this task and submitted to SGA in writing in advance of implementation.

West Yost project management includes all activities that are not specific to any one task, including overall project management and coordination of activities with SGA. Communication will occur to keep SGA's Project Manager informed on the progress of the Study. Included in the project management task is the kickoff meeting, where West Yost will meet with the Project Manager and key SGA staff to initiate the work, and SGA and West Yost will discuss and capture any new or additional information needed to make sure SGA's and the agency stakeholders' vision for the Study is met. The kickoff meeting agenda will include reconfirming the goal of the Study, reviewing project tasks, introducing the project team, and establishing communication channels. We will provide monthly Study progress updates to the SGA's Project Manager via email, supplemented with calls or meetings as the SGA requires.

West Yost values producing high-quality work products and providing timely client service. Our project management tools include systems for tracking work progress and expenditures, proactive communications, and QA/QC of all work products. Also, the monthly review of the project by our West Yost Principal-in-Charge is an integral part of our QA/QC process. Budget for QA/QC is included in the project management task.

Task 1 Assumptions

- Kick off meeting with SGA staff will be one hour and virtual.
- Monthly project updates will be via virtual half-hour check-in meetings.

Task 1 Deliverables

- West Yost will prepare a kick off and progress meeting agendas and notes.
- West Yost will prepare a letter to SGA with proposed refinements to scope, schedule, and task-level budgets.

Task 2. Stakeholder Meetings

West Yost will organize and participate in three in-person or hybrid meetings with SGA and stakeholder agency staff as described below.

- **Initial Meeting** – This meeting will be held at the beginning of the project and will be used to:
 - Refine goals and objectives
 - Define list of participating stakeholder agencies
 - Define geographic extent of study area
 - Identify agency-specific concerns
 - Prioritize municipal wells to be included in Study
 - Review and refine proposed scope, deliverables, and schedule

West Yost will document the outcomes of the meeting and prepare and send written requests for agency-specific information to the participating agencies after this meeting. West Yost will set up a secure One-Drive site for easy transfer of requested information.

- **Meeting to Present Preliminary Results** – This meeting will be held after the threat analysis is completed and will be used to:
 - Present methods, results, and preliminary conclusions in PowerPoint presentation format
 - Inform SGA and stakeholder agencies
 - Receive comments and direction from SGA and stakeholder agencies
- **Meeting to Present Draft Groundwater Quality Degradation Study Report** – This meeting will be held after issuance of the draft report and will be used to:
 - Present and discuss draft report
 - Receive comments on draft report from SGA and stakeholder agencies

Task 2 Assumptions

- SGA or a participating agency will provide accommodations for the meetings.
- Participating agencies will provide the information requested within two weeks of receipt of the data request.

Task 2 Deliverables

- West Yost will prepare an agenda, presentation, and minutes for three (3) stakeholder agency meetings.
- West Yost will prepare written requests for agency-specific information.

Task 3. Compile Existing Information

The following information will be compiled in ArcGIS, Microsoft Excel and Word, and PDF formats:

- Municipal Wells: Locations, construction, lithologic and geophysical logs, operational/condition history, well modifications, production data, special water quality studies, field water quality data
- Monitoring Wells (Selected monitoring wells relevant to Study): Locations, construction, lithologic and geophysical logs, operational/condition history, well modifications
- Water quality data: Data sources will be the Safe Drinking Water Information (SDWIS) Federal Reporting Services, State Water Resources Control Board GeoTracker Groundwater Ambient Monitoring and Assessment Program (GAMA) data repository, California Environmental Data Exchange Network, the National Water Quality Monitoring Council website and published reports.
- Prior Studies: Geology, hydrogeology, contaminants, degree, extent, fate and transport, delineated plumes and exclusion zones, age of groundwater, recharge areas
- Fate and transport information: Physicochemical properties of PCE, aquifer properties (hydraulic conductivity, porosity, bulk density, fraction of organic carbon).
- Parcel information: Sacramento County APNs
- CoSANA IWFM model information: mesh, layers, model well specifications (locations, layers, depth, screened intervals), and model outputs (water levels, flow fields)

Task 3 Assumptions:

- Participating agencies are Sacramento Suburban Water District (SSWD) and Carmichael Water District (CWD).
- Geographic extent of the study area is lower western Placer and northeastern Sacramento counties, the SSWD service area and the CWD service area.

Task 3 Deliverables:

- West Yost will prepare a Technical Memorandum (TM) documenting a list of municipal wells that are potentially at risk for future PCE contamination.

Task 4. Prepare Hydrogeologic Conceptual Model

This task will consist of preparing a hydrogeologic conceptual model (HCM) for the study area in ArcGIS. The HCM will be developed specifically for meeting Study objectives and will consist of:

- Geologic map and cross sections depicting:
 - Geologic and hydrogeologic units
 - Well locations, construction and known modifications
- Groundwater elevation contour and horizontal gradient maps
- Groundwater elevations on cross sections showing vertical gradients where data are available
- Tabulated summary of available aquifer hydraulic parameter data based on pump test data

Task 4 Assumptions

- See Task 3 assumptions.
- One geologic map and four geologic cross sections will be prepared.
- Up to four groundwater elevation contour maps will be prepared.

Task 4 Deliverables

- West Yost will provide all work products incorporated in subsequent tasks.

Task 5. Prepare Conceptual Model for Contaminant Transport

This task will consist of preparing a conceptual model for PCE transport to municipal wells. The transport conceptual model will build upon and be integrated with the HCM and will consist of:

- Mapping of PCE plumes and point sources
- Mapping of time series PCE detections at municipal wells and selected monitoring wells, including production data where available
- Posting of recent PCE detections on cross sections at sampled depth intervals
- Tabulating physicochemical properties of PCE and aquifer, culminating in estimated transport velocity and half-life
- Mapping conceptual capture zones based on observed regional groundwater gradient and measured drawdown at each municipal well

Task 5 Assumptions

- See Task 3 and 4 assumptions.

Task 5 Deliverables

- West Yost will provide work products incorporated in following tasks.

Task 6. Assess Threats to Existing and Future Municipal Wells

This task will consist of the following:

- Project concentration trends at existing municipal wells, and identify current and projected future MCL exceedances as well as the need for wellhead treatment
- Delineate areas with potential well sites currently threatened by PCE
- Delineate areas with potential well sites threatened by PCE in the future (assuming no new releases)
- Develop preliminary conclusions on the impact of conjunctive use and ASR on PCE impacts to municipal wells
- Develop preliminary conclusions on the use of the CoSANA IWFM model for particle tracking based on mesh, layers, and model wells

Task 6 Assumptions

- See Task 3, 4, and 5 assumptions.
- Up to 15 municipal wells will be evaluated.
- Groundwater modeling is not included.

Task 6 Deliverables

- West Yost will provide work products presented in Meeting No. 2 and incorporated in following tasks.

Task 7. Prepare Groundwater Quality Degradation Study Report

This task will consist of preparing the Groundwater Quality Degradation Study Report as follows:

- Prepare draft report
- Meet with participating stakeholder agencies to present and discuss draft report (see Task 2 – Stakeholder Meetings)
- Receive comments from SGA and stakeholder agencies
- Prepare and issue final report

Task 7 Assumptions

- SGA will provide one set of consolidated comments within three weeks of submittal of the draft report.
- Only SGA and participating agencies will submit comments.

Task 7 Deliverables

- West Yost will provide a draft in Microsoft Word and PDF formats.
- West Yost will provide a Final report in PDF format.
- West Yost will provide a comment-response log.
- West Yost will provide GIS files developed for the Study.

PROPOSED BUDGET

West Yost’s proposed level of effort and budget for each of the tasks described above is shown in Table 1. West Yost will perform the Scope of Services described above on a time-and-expenses basis, at the billing rates set forth in Attachment A, West Yost’s 2024 Billing Rate Schedule, with a not-to-exceed budget of \$230,800. Any additional services not included in this Scope of Services will be performed only after receiving written authorization and a corresponding budget augmentation. A detailed breakdown of the budget is included in Attachment B.

Table 1. Estimated Project Hours and Budget		
Task	Level of Effort, hours	Estimated Budget, dollars
Task 1. Project Management and QA/QC	160	47,700
Task 2. Stakeholder Meetings	87	23,700
Task 3. Compile Existing Information	132	31,200
Task 4. Prepare Hydrogeologic Conceptual Model	116	28,900
Task 5. Prepare Conceptual Model for Contaminant Transport	76	19,200
Task 6. Assess Threats to Existing and Future Municipal Wells	84	22,700
Task 7. Prepare Groundwater Degradation Study Report	214	57,400
Total Project Hours and Budget	869	\$230,800

SCHEDULE

West Yost is prepared to begin work within one week of receiving notice to proceed. Table 2 provides our proposed schedule.

Table 2. Proposed Schedule													
Task	2024								2025				
	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	
Notice to Proceed		◆											
Task 1. Project Management and QA/QC													
Scope, Schedule and Budget Management													
Coordination Meetings with SGA		■	■	■	■	■	■	■	■	■	■	■	
QA/QC													
Task 2. Stakeholder Agency Meetings													
Meeting 1			● ◆ ●										
Meeting 2							● ◆ ●						
Meeting 3									● ◆ ●				
Task 3. Compile Existing Information				●									
Task 4. Prepare Hydrogeologic Conceptual Model													
Task 5. Prepare Conceptual Model for Contaminant Transport													
Task 6. Assess Threats to Existing and Future Municipal Wells													
Task 7. Prepare Groundwater Quality Degradation Study Report													
Prepare Draft Report													
SGA/Agency Review													
Prepare Final Report													
■ West Yost Task ■ SGA/Agency Review ◆ Workshops/Milestones ■ Conference Call / Meeting ● Deliverable													

PROJECT TEAM

Kelye McKinney will serve as Principal In-Charge. Kelye is a professional engineer with 33 years of experience in municipal water utilities.

Ken Loy will serve as the technical lead for the Study and primary author of the Groundwater Quality Degradation Study Report. Ken is a Certified Hydrogeologist and Engineering Geologist with nearly 35 years of experience in hydrogeologic and water quality characterization, data analysis, and modeling. Ken is currently serving as Owner's Representative for SSWD's progressive design-build well construction projects and has assisted SSWD with groundwater quality assessments, well siting studies, and ASR evaluations. Ken was the technical lead and managed the investigation and modeling of the PCE plume at the former Mather Air Force Base, and the modeling and three-dimensional visualization of the PCE plume in Aerojet's American River Study Area.

Clay Sorensen will support Ken by serving as the Project Manager and providing technical support to the Study. Clay is a Certified Hydrogeologist with eight years of geologic and environmental consulting experience, including water-well drilling, groundwater resource investigations and litigation support, investigation and remediation of chemically impacted sites, and surface and groundwater monitoring.

Anna Reimer will provide support in assembling the available data, conducting the analysis, and report preparation. Anna is a Professional Geologist with 15 years of experience working with Ken, including on the SSWD projects listed above.

Samantha Adams will serve as the QA/QC reviewer of all work products. Samantha is an environmental scientist with 18 years of experience in groundwater management, including salt and nutrient management planning, design and implementation of monitoring programs, and regulatory compliance support. Samantha has served as a project manager and QA/QC reviewer of complex, basin-scale water quality modeling studies in the Chino Basin and Elsinore Basin in southern California.

Supporting staff will include:

- **Alice Kwok** - Alice is a geologist-in-training with six years of experience. Alice will support assembling the available data, conducting the analysis, and preparing the report.
- **Lucey Hedley** - Lucy is an associate scientist with five years of experience in data management, water quality analysis, GIS and geospatial analysis, and ground and surface water monitoring program implementation. Lucy will provide Python programming support for efficient water quality data processing.
- **Ben Klayman, PhD** - Ben will support the threat analysis by providing as-needed technical expertise in water quality and wellhead treatment. Ben is a professional engineer licensed in Oregon and has 16 years of experience.

Thank you for providing West Yost the opportunity to assist SGA. Please contact me at 530-792-3276 or via email at kloy@westyost.com if you wish to discuss any of the information presented in this proposal.

Sincerely,
WEST YOST



Ken Loy, PG
Principal Hydrogeologist
PG #7008
530.792.3276



Kelye McKinney, PE
Principle-In-Charge
RCE #49414
916.846.4687

Attachments: Attachment A. West Yost 2024 Billing Rate Schedule
Attachment B. Detailed Fee Estimate



Attachment A

West Yost 2024 Billing Rate Schedule

2024 Billing Rate Schedule

(Effective January 1, 2024, through December 31, 2024)*



POSITIONS	LABOR CHARGES (DOLLARS PER HOUR)
ENGINEERING	
Principal/Vice President	\$355
Engineer/Scientist/Geologist Manager I / II	\$335 / \$351
Principal Engineer/Scientist/Geologist I / II	\$302 / \$322
Senior Engineer/Scientist/Geologist I / II	\$272 / \$286
Associate Engineer/Scientist/Geologist I / II	\$226 / \$243
Engineer/Scientist/Geologist I / II	\$176 / \$205
Engineering Aide	\$106
Field Monitoring Services	\$131
Administrative I / II / III / IV	\$97 / \$121 / \$145 / \$160
ENGINEERING TECHNOLOGY	
Engineering Tech Manager I / II	\$349 / \$351
Principal Tech Specialist I / II	\$320 / \$331
Senior Tech Specialist I / II	\$293 / \$306
Senior GIS Analyst	\$265
GIS Analyst	\$251
Technical Specialist I / II / III / IV	\$187 / \$213 / \$239 / \$267
Technical Analyst I / II	\$134 / \$160
Technical Analyst Intern	\$108
Cross-Connection Control Specialist I / II / III / IV	\$140 / \$151 / \$170 / \$189
CAD Manager	\$211
CAD Designer I / II	\$164 / \$185
CONSTRUCTION MANAGEMENT	
Senior Construction Manager	\$338
Construction Manager I / II / III / IV	\$201 / \$215 / \$228 / \$289
Resident Inspector (Prevailing Wage Groups 4 / 3 / 2 / 1)	\$181 / \$201 / \$224 / \$232
Apprentice Inspector	\$164
CM Administrative I / II	\$87 / \$118
Field Services	\$232

- Hourly rates include charges for technology and communication, such as general and CAD computer software, telephone calls, routine in-house copies/prints, postage, miscellaneous supplies, and other incidental project expenses.
- Outside services, such as vendor reproductions, prints, and shipping; major West Yost reproduction efforts; as well as engineering supplies, etc., will be billed at the actual cost plus 15%.
- The Federal Mileage Rate will be used for mileage charges and will be based on the Federal Mileage Rate applicable to when the mileage costs were incurred. Travel other than mileage will be billed at cost.
- Subconsultants will be billed at actual cost plus 10%.
- Expert witness services, research, technical review, analysis, preparation, and meetings will be billed at 150% of standard hourly rates. Expert witness testimony and depositions will be billed at 200% of standard hourly rates.
- A finance charge of 1.5% per month (an annual rate of 18%) on the unpaid balance will be added to invoice amounts if not paid within 45 days from the date of the invoice.

2024 Billing Rate Schedule

(Effective January 1, 2024, through December 31, 2024)*

Equipment Charges

EQUIPMENT	BILLING RATES
2" Purge Pump & Control Box	\$300 / day
Aquacalc / Pygmy or AA Flow Meter	\$28 / day
Emergency SCADA System	\$35 / day
Field Vehicles (Groundwater)	\$1.02 / mile
Gas Detector	\$80 / day
Generator	\$60 / day
Hydrant Pressure Gauge	\$10 / day
Hydrant Pressure Recorder, Impulse (Transient)	\$55 / day
Hydrant Pressure Recorder, Standard	\$40 / day
Low Flow Pump Back Pack	\$135 / day
Low Flow Pump Controller	\$200 / day
Powers Water Level Meter	\$32 / day
Precision Water Level Meter 300ft	\$30 / day
Precision Water Level Meter 500ft	\$40 / day
Precision Water Level Meter 700ft	\$45 / day
QED Sample Pro Bladder Pump	\$65 / day
Storage Tank	\$20 / day
Sump Pump	\$24 / day
Transducer Communications Cable	\$10 / day
Transducer Components (per installation)	\$23 / day
Trimble GPS – Geo 7x	\$220 / day
Tube Length Counter	\$22 / day
Turbidity Meter	\$30 / day
Turbidity Meter (2100Q Portable)	\$35 / day
Vehicle (Construction Management)	\$10 / hour
Water Flow Probe Meter	\$20 / day
Water Quality Meter	\$50 / day
Water Quality Multimeter	\$185 / day
Well Sounder	\$30 / day



Attachment B

Detailed Fee Estimate

West Yost Associates	EM/SM/GM I \$335 K. McKinney	PE/PS/PG II \$322 K.Loy	PE/PS/PG II \$322 B. Klayman	SE/SS/SG \$272 C. Sorensen	AE/AS/AG II \$243 A. Reimer	AE/AS/AG I \$226 L. Hedley	ESG II \$205 A. Kwok	P \$355	Labor		Costs			
									Hours	Fee	Sub. w/ markup 10%	Other Direct	Total Costs	
PROJECT: Groundwater Quality Degradation Study														
Task 1Project Management														
1.01 Scope, Schedule and Budget Management	4	16		60					80	\$ 22,812			\$ 22,812	
1.02 Coordination Meetings with SGA	4	24		32					60	\$ 17,772			\$ 17,772	
1.03 QA/QC								20	20	\$ 7,100			\$ 7,100	
Subtotal, Task 1 (hours)	8	40	0	92	0	0	0	20	160					
Subtotal, Task 1 (\$)	\$ 2,680	\$ 12,880		\$ 25,024				\$ 7,100		\$ 47,684			\$ 47,684	
Task 2Stakeholder Meetings														
2.01 Initial Meeting	1	8		6	6				21	\$ 6,001		\$ 75	\$ 6,076	
2.02 Preliminary Findings Meeting	1	12		8	8		8		37	\$ 9,959		\$ 75	\$ 10,034	
2.03 Draft Report Review Meeting	1	8		4	8		8		29	\$ 7,583		\$ 75	\$ 7,658	
Subtotal, Task 2 (hours)	3	28	0	18	22	0	16	0	87					
Subtotal, Task 2 (\$)	\$ 1,005	\$ 9,016		\$ 4,896	\$ 5,346		\$ 3,280			\$ 23,543		\$ 225	\$ 23,768	
Task 3Compile Existing Information														
3.01		16		16	20	20	60		132	\$ 31,184			\$ 31,184	
Subtotal, Task 3 (hours)	0	16	0	16	20	20	60	0	132					
Subtotal, Task 3 (\$)		\$ 5,152		\$ 4,352	\$ 4,860	\$ 4,520	\$ 12,300			\$ 31,184			\$ 31,184	
Task 4Prepare Hydrogeologic Conceptual Model														
4.01		24		12	40		40		116	\$ 28,912			\$ 28,912	
Subtotal, Task 4 (hours)	0	24	0	12	40	0	40	0	116					
Subtotal, Task 4 (\$)		\$ 7,728		\$ 3,264	\$ 9,720		\$ 8,200			\$ 28,912			\$ 28,912	
Task 5Prepare Conceptual Model for Contaminant Transport														
5.01		16		12	24		24		76	\$ 19,168			\$ 19,168	
Subtotal, Task 5 (hours)	0	16	0	12	24	0	24	0	76					
Subtotal, Task 5 (\$)		\$ 5,152		\$ 3,264	\$ 5,832		\$ 4,920			\$ 19,168			\$ 19,168	
Task 6Assess Threats to Existing and Future Municipal Wells														
6.01		24	8	12	24		16		84	\$ 22,680			\$ 22,680	
Subtotal, Task 6 (hours)	0	24	8	12	24	0	16	0	84					
Subtotal, Task 6 (\$)		\$ 7,728	\$ 2,576	\$ 3,264	\$ 5,832		\$ 3,280			\$ 22,680			\$ 22,680	
Task 7Prepare Groundwater Degradation Study														
7.01 Prepare Draft Groundwater Degradation Study Report	1	40	8	24	40		24		137	\$ 36,959			\$ 36,959	
7.02 Prepare Final Groundwater Degradation Study Report	1	20	4	12	24		16		77	\$ 20,439			\$ 20,439	
Subtotal, Task 7 (hours)	2	60	12	36	64	0	40	0	214					
Subtotal, Task 7 (\$)	\$ 670	\$ 19,320	\$ 3,864	\$ 9,792	\$ 15,552		\$ 8,200			\$ 57,398			\$ 57,398	
TOTAL (hours)														
TOTAL (\$)	\$ 4,355	\$ 66,976	\$ 6,440	\$ 53,856	\$ 47,142	\$ 4,520	\$ 40,180	\$ 7,100		\$ 230,569	\$ 0	\$ 225	\$ 230,794	

Topic: Development of the Annual Report
Type: New Business
Item For: Information
Purpose: Groundwater Sustainability Plan Implementation

SUBMITTED BY:	Trevor Joseph Manager of Technical Services	PRESENTER:	Trevor Joseph Manager of Technical Services
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EXECUTIVE SUMMARY

This is an information item to brief the Sacramento Groundwater Authority Board of Directors on the Sustainable Groundwater Management Act required submission of an Annual Report.

STAFF RECOMMENDED ACTION

No action required.

BACKGROUND

The Sustainable Groundwater Management Act requires the submission of an Annual Report. Mr. Joseph will be briefly discussing the purpose and content of the Annual Report.

Topic: Development of the Fiscal Year 2024/2025 Budget
Type: New Business
Item For: Information
Purpose: Policy 400.3

SUBMITTED BY:	Tom Hoffart Finance and Administrative Services Manager	PRESENTER:	Tom Hoffart Finance and Administrative Services Manager
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EXECUTIVE SUMMARY

This is an information item to brief the Sacramento Groundwater Authority Board of Directors on the policies and considerations in developing the SGA Budget and for the Chair to appoint a Budget Ad Hoc Committee.

STAFF RECOMMENDED ACTION

Chair to appoint a Budget Ad Hoc Committee for the Fiscal Year 2024/2025 Budget

BACKGROUND

Staff is beginning the preparation of the Fiscal Year 2024/2025 SGA budget. The Chair typically appoints a Budget Ad Hoc Committee at the beginning of the year to provide feedback and direction in preparing a draft budget for consideration by the full Board. This item also includes a brief status update of the current year-end forecast and future budget outlook as well as reviewing the fees calculation methodology, SGA budget policies, last year's budget assumptions, and outlining the budget schedule.

Agenda Item 7

Topic: Sacramento Groundwater Authority (SGA) 2024 Strategic Priorities

Type: New Business

Item For: Action/Discussion

Purpose: SGA Board Consideration of SGA 2024 Strategic Priorities

SUBMITTED BY:	Trevor Joseph, P.G., C.Hg. Manager of Technical Services	PRESENTER:	Trevor Joseph, P.G., C.Hg. Manager of Technical Services
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EXECUTIVE SUMMARY

SGA staff has identified a set of strategic priorities for the Sacramento Groundwater Authority Board of Directors consideration and approval.

STAFF RECOMMEND ACTION:

A motion to approve the 2024 Strategic Priorities.

BACKGROUND

SGA staff has identified a set of strategic priorities for the Board's consideration and approval. The priorities will guide the work of the SGA during the 2024 calendar year. These strategic priorities were originally established for the 2023 calendar year and approved by the SGA Board during the February 2023 Board meeting. SGA staff feels the 2023 calendar year strategic priorities are still relevant without any changes for the 2024 calendar year.

The priorities are as follows:

1) **Manage and implement activities in compliance with the Sustainable Groundwater Management Act (SGMA) within the North American Subbasin (NASb or Subbasin).**

- Manage the North Area Groundwater Basin in compliance with SGMA through the following actions:
 - Continue to manage the use of groundwater in the NASb to support the long-term sustainable groundwater yield of the Subbasin;
 - Continue long-term implementation of the Groundwater Sustainability Plan (GSP) for the Subbasin through management and support of identified project and management actions; and
 - Continue to manage and implement activities identified in the GSP through the following activities:

Agenda Item 7

- Monitoring - Groundwater elevation monitoring, groundwater quality monitoring, subsidence monitoring, and other monitoring.
- Data Management - Upload groundwater elevation and water quality data to applicable State SGMA database and update NASb Data Management System.
- Data Analysis - Sustainability indicators, annual report, and CoSANA Groundwater Model.
- Coordination and Outreach - Quarterly North American Subbasin (NASb) Groundwater Sustainability Agency [GSA] meetings, Annual Report updates, 5-year GSP updates; and other management activities such as fill in data gaps noted in the monitoring well network, track implementation of urban area conjunctive use programs, work with the Regional Water Authority in its development of the Sacramento Regional Water Bank, track progress of supplemental projects, technical work on well construction practices, shallow/domestic well analysis and groundwater dependent ecosystem assessment management and annual monitoring.

2) Lead and support successful Conjunctive Water Management, as well as assess and respond to impacts on water resources within the SGA area and in partnership with others in the NASb Subbasin.

- Manage the use of groundwater in the NASb and facilitate implementation of Conjunctive Use program(s) by water purveyors.
- Preserve and protect the water supplies of the NASb for present and future uses in the Sacramento region.
- Devise and implement strategies and projects (e.g., groundwater substitution transfers, water bank project, Natomas Cross Canal, etc) to provide benefits to water users within the Subbasin.

3) Promote successful protection and enhancement of the reliability, availability, and quality of groundwater resources by engaging with relevant internal and external agencies, organizations with water interests, members of the public, and other beneficial users of groundwater within the NASb Subbasin.

- Through education, discussions, and target outreach with stakeholders and interested parties promote the objectives of the SGA. Internal and external interested parties include but are not limited to Association of California Water Agencies, Groundwater Resources Association, Sacramento Central Groundwater Authority Northern California Water Association, local,

Agenda Item 7

state, and federal agencies, the public and other beneficial users of groundwater.

- Continue activities such as the Regional Contamination Issues Committee to promote coordination and engagement throughout the Subbasin.
- Support and protect the most sensitive beneficial uses and users of groundwater in the NASb by collaborating with local permitting agencies on well construction practices.
- Facilitate collaboration between subbasins and adjacent GSAs to support SGMA compliance.

4) Engage relevant Federal, State and Local Agencies that influence or manage resources related to support successful management of the NASb Subbasin.

- Facilitate and lead State and Federal regulatory agencies, local water agencies, responsible parties and members of the public to support successful management of the Subbasin.

5) Continuously monitor, collect, track, and analyze water levels, quantity, and quality within the Subbasin to comply with SGMA requirements and support the development and implementation of strategies to safeguard groundwater within the NASb Subbasin.

- Continue to monitor, collect, manage and analyze data such as groundwater elevation, water level, water quality and shallow water quality to comply with SGMA requirements and that benefit other SGA and RWA projects and programs in the Subbasin.
- Continue to lead quarterly Regional Contamination Issues Committee meetings that provide groundwater quality knowledge transfer and information sharing between regulatory and local agencies.

6) Maintain funding solvency through thorough administrative and project management services.

- Evaluate, support and strategically pursue funding opportunities for members and partner agencies that benefit the NASb and water users within the region.
- Administer funding and financing to implement projects and program activities in accordance with fiscal rules and available budget through industry standard project management processes and adaptive management.

Topic: Executive Directors' Report
Type: New Business
Item For: Information
Purpose: General

SUBMITTED BY: Jim Peifer
Executive Director

PRESENTER: Jim Peifer
Executive Director

EXECUTIVE SUMMARY

This is an information item for the Executive Director to provide a briefing on important activities, reports, communications, advocacy, and other updates to the Sacramento Groundwater Authority Board of Directors.

STAFF RECOMMENDED ACTION

None. This item is for information/discussion only.

BACKGROUND

This agenda item is a standing item to provide an opportunity for the Executive Director to report to the Board of Directors on important activities, reports, communications, advocacy, and other updates.

RWA Executive Committee – Chair Selsky nominated Chris Peterson from the Fair Oaks Water District as the SGA representative to the RWA Executive Committee.

ECOS Letter – The Environmental Council of Sacramento has sent a letter requesting Environmental Community Based Representation on the Groundwater Sustainability Agency Boards. A copy of the letter is attached.

Financial Reports – Unaudited Financial Reports through December 31, 2022, are attached. Other statements including LAIF statement are the most recent available.

ATTACHMENTS

Attachment 1- ECOS Letter

Attachment 2 – Financial Reports



Post Office Box 1526 | Sacramento, CA 95812-1526

January 29, 2024

To: GSA Boards in the Sacramento Area - North, Central and Consumnes subbasin GSAs

North American Subbasin

Reclamation District 1001 GSA; Michael Phillips, mphillips@rd1001.org
Sacramento Groundwater Authority GSA; Jim Peifer, jpeifer@rwah2o.org
South Sutter Water District GSA; Brad Arnold, sswd@hughes.net
Sutter County GSA; Guadalupe Rivera, grivera@co.sutter.ca.us
West Placer County GSA; Christina Hanson, chanson@placer.ca.gov

South American Subbasin

Sacramento County; Kerry Schmitz, schmitzk@saccounty.net
Northern Delta; Erik Ringelberg, erik@thefreshwatertrust.org
Omochochumne-Hartnell Water District, Mike Wackman, info@ohwd.org
Sacramento Central Groundwtr Auth; John Woodling, jwoodling@geiconsultants.com
Sloughhouse Resource Conservation Dist; info@soughhouseRCD.org

Cosumnes Subbasin

Omochochumne-Hartnell Water District; Mike Wackman, info@ohwd.org
Sloughhouse Resource Conservation Dist; info@soughhouseRCD.org
Galt Irrigation District; Leo Van Warmerdam, galtirrigationdistrict@gmail.com
Clay Water District; Gary Silva Jr., soilstoppers@yahoo.com
City of Galt; Mark Clarkson, mclarkson@cityofgalt.org
Amador County Groundwater Mgmt Auth; Rick Ferriera, rferriera@amadorwater.org
Sacramento County; Linda Dorn, dornl@saccounty.net

Subject: Environmental Community Based Representation on GSA Boards

Groundwater management has taken a huge step forward with the Sustainable Groundwater Management Act (SGMA) and the formation of Groundwater Sustainability Agencies (GSA) throughout California. The Environmental Council of Sacramento (ECOS) is very supportive of the Sacramento Area GSA efforts to develop and begin implementation of their Groundwater Sustainability Plans (GSP) and feels the Region has done a good job of working through a multitude of technical issues. ECOS believes implementation of these GSPs requires close coordination between the GSAs, water purveyors, and the public as evidenced by our comments on the GSP annual reports to the State. One way coordination can be improved is through the inclusion of broader representation on GSA Boards of Directors.



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Implementation of SGMA to reach and maintain sustainable extraction levels by 2040, considering climate change impacts, requires several tradeoffs and decisions that affect public resources and public use. Under SGMA, these decisions are to consider the interests of all beneficial uses and users of groundwater and to “encourage the active involvement of diverse social, cultural, and economic elements of the population”.

Most GSA Boards are composed primarily of representatives from agricultural and public water agencies. These interests are often heavily represented on GSA boards because of their dependence on, and use of, groundwater resources. Public water agency representatives and large agricultural interests are focused on their critical water supply issues but are not usually charged with a mandate to represent a balanced environmental or public impact across an entire subbasin. Environmental and community based organizations who, by their nature, are concerned with these issues, are generally not represented on GSA Boards, despite the originating legislation that specifically calls out environmental and public interests in addition to the others (SGMA: These decisions are to consider the interests of all beneficial uses and users of groundwater and to encourage the active involvement of diverse social, cultural, and economic elements of the population).

Environmental and community-based stakeholders often have important and informed views of reasonable impacts and necessary protections – both to private wells, and to environmental resources, such as groundwater dependent ecosystems. Without a “seat at the table”, their voices are usually heard only in limited public comment at GSA meetings, or in the few public informational meetings. However, where these types of stakeholders are included on GSA Boards, issues are raised earlier, and discussed more fully as a Board. Significant and meaningful engagement can create more lasting and durable agreements, build public support, establish policies that are responsive and robust, protect against future lawsuits/challenges, and build relationships and trust among resource users.¹ A recent 2023 report, published in Nature (<https://www.nature.com/articles/s41467-023-39363-y>) looked at this dynamic and concluded that GSAs with wider representation were more likely to have more completely addressed the required range of SGMA issues.

Given the “new” nature of SGMA and the evolving nature of GSA responsibilities, boundaries, and interactions, we would like to encourage all GSAs, but particularly those in our Sacramento area, to consider including at least one public/environmental representative on the GSA Boards.

¹ Collaborating for Success: Stakeholder Engagement for Sustainable Groundwater Management Act Implementation, Collaborating for Success ii July 2015
Authors: Kristin Dobbin, Jennifer Clary, Laurel Firestone, Juliet Christian-Smith,



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There may be near term opportunities for several GSAs to accomplish board member additions as consolidations or reorganizations occur.

ECOS has individual members and member organizations that can provide thoughtful and considered input on these issues in each of the region's three subbasins, and ECOS is only one of a number of local organizations that GSA's can turn to for potential Board members. Given the typical number of current GSA board members, one or two public/environmental seats bringing the additional perspectives we suggest, will not diminish each GSA's local control – in fact, we believe their inclusion allows a more complete and stronger view of what the local stakeholder wishes truly are.

ECOS believes in this concept so strongly that we are cc'ing the Department of Water Resources. We hope that the DWR will encourage all GSAs to consider this approach, as we feel it will address a very distinct SGMA implementation gap.

Thank you for your consideration of this suggestion. We stand ready to discuss the inclusion of environmental/community board representation with you further, and to support your efforts to increase the inclusion and breath of your Boards.

A handwritten signature in blue ink, appearing to read "T. Rauh".

Ted N. Rauh
Water Committee Chair

cc. Sacramento County Board of Supervisors
Department of Watter Resources

SACRAMENTO GROUNDWATER AUTH.

Income Statement

December 2023

	<i>6 Months Ended December 31, 2023</i>	<i>Annual Budget</i>	<i>Unused</i>	<i>% Used</i>
REVENUES				
Groundwater Fees Revenue	528,075.00	528,075.00	0.00	100.0 %
Base Administrative Fee	379,004.00	379,004.00	0.00	100.0 %
20th anniversary	6,460.00	0.00	(6,460.00)	
Miscellaneous Revenues	284.79	0.00	(284.79)	
Cash Discount	595.24	0.00	(595.24)	
Interest on S/T Investments	11,669.32	22,000.00	10,330.68	53.0 %
TOTAL REVENUES	926,088.35	929,079.00	2,990.65	99.7 %
Total REVENUE	926,088.35	929,079.00	2,990.65	99.7 %
GROSS PROFIT	926,088.35	929,079.00	2,990.65	99.7 %
OPERATING EXPENDITURES				
Staff Expenses				
General Salaries - Project Assistant	6,217.32	0.00	(6,217.32)	
General Salaries	185,563.24	541,489.00	355,925.76	34.3 %
General Salaries - EE PERS	15,070.50	0.00	(15,070.50)	
SGA EE PERS Paid by RWA	(17,669.28)	0.00	17,669.28	
SGA Only Staff & Benefits	63,573.82	0.00	(63,573.82)	
Employee Benefits - Health	0.00	157,938.00	157,938.00	
Employee Benefits - Health	20,860.37	0.00	(20,860.37)	
Employee Benefits - Dental	2,310.35	0.00	(2,310.35)	
Employee Benefits - PERS	28,128.27	0.00	(28,128.27)	
Employee Benefits - Vision	406.74	0.00	(406.74)	
Employee Benefits - Disability	1,351.36	0.00	(1,351.36)	
Worker's Comp Insurance	991.00	0.00	(991.00)	
Payroll Taxes - FICA/MED	9,628.81	43,319.00	33,690.19	22.2 %
Travel	734.06	0.00	(734.06)	
Travel / Meals	9,366.55	13,000.00	3,633.45	72.1 %
Professional Development	90.00	6,500.00	6,410.00	1.4 %
TOTAL Staff Expenses	326,623.11	762,246.00	435,622.89	42.9 %
Office Expenses				
Rent - shared	2,964.50	15,000.00	12,035.50	19.8 %
Insurance - Auto & Gen Liab.	30,633.00	24,000.00	(6,633.00)	127.6 %
Insurance - Property	600.00	0.00	(600.00)	
Office Maintenance	521.50	700.00	178.50	74.5 %

**6 Months Ended
December 31, 2023**

		Annual Budget	Unused	% Used
Telephone	1,254.27	5,000.00	3,745.73	25.1 %
Dues and Subscription	1,355.00	0.00	(1,355.00)	
Dues and Subscription	1,284.49	6,800.00	5,515.51	18.9 %
Office Supplies	196.53	6,750.00	6,553.47	2.9 %
Printing - General	349.25	5,250.00	4,900.75	6.7 %
Office Equipment	1,226.66	0.00	(1,226.66)	
Postage	37.50	1,800.00	1,762.50	2.1 %
Postage - Equipment	278.00	0.00	(278.00)	
Meetings - SGA only	24,351.94	0.00	(24,351.94)	
Meetings	119.99	3,000.00	2,880.01	4.0 %
Computer Equipment & Supplies	364.34	3,500.00	3,135.66	10.4 %
Computer Software	1,288.52	0.00	(1,288.52)	
Computer Support & Maintenance	7,888.72	15,000.00	7,111.28	52.6 %
TOTAL Office Expenses	74,714.21	86,800.00	12,085.79	86.1 %
Office Furniture & Equipment				
Office Furniture	0.00	10,000.00	10,000.00	
Office Move	9,322.98	10,000.00	677.02	93.2 %
TOTAL Office Furniture & Equipment	9,322.98	20,000.00	10,677.02	46.6 %
Professional Fees				
ADP Charges	227.91	1,800.00	1,572.09	12.7 %
Banking Fees	387.94	200.00	(187.94)	194.0 %
Audit Fees	14,450.00	17,500.00	3,050.00	82.6 %
Legal Fees	10,027.00	50,000.00	39,973.00	20.1 %
Shared Legal Fees	4,193.73	0.00	(4,193.73)	
GASB 68 reporting fee	700.00	0.00	(700.00)	
Consulting Expenses	0.00	40,000.00	40,000.00	
Consulting Expenses	2,360.00	13,400.00	11,040.00	17.6 %
Budget/audit support	28,731.88	34,800.00	6,068.12	82.6 %
Actuarial Services	0.00	4,450.00	4,450.00	
Human Resources Services	0.00	6,250.00	6,250.00	
TOTAL Professional Fees	61,078.46	168,400.00	107,321.54	36.3 %
Consulting - Program Management				
Update GSP	0.00	25,000.00	25,000.00	
TOTAL Consulting Program Management	0.00	25,000.00	25,000.00	
Special Projects Expenses				
2022 GSP Imp - Consulting	7,074.70	83,171.00	76,096.30	8.5 %
TOTAL Special Projects Expenses	7,074.70	83,171.00	76,096.30	8.5 %
TOTAL OPERATING EXPENDITURES	478,813.46	1,145,617.00	666,803.54	41.8 %
OPERATING INCOME (LOSS)	447,274.89	(216,538.00)	(663,812.89)	-206.6 %

	<i>6 Months Ended December 31, 2023</i>	<i>Annual Budget</i>	<i>Unused</i>	<i>% Used</i>
NET OPERATING INCOME (LOSS)	447,274.89	(216,538.00)	(663,812.89)	-206.6 %
NET INCOME (LOSS) OF PROGRAM	447,274.89	(216,538.00)	(663,812.89)	-206.6 %



Per California Government Code 6505.5 (e), SGA reports the following unaudited information:

For the period ending December 2023

Cash in checking account:	\$	159,978
LAIF Balance	\$	1,669,706

For the period of October 1 to December 31, 2023

Total cash receipts for the period:	\$	23,295
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Total cash disbursements for the period:	\$	94,570
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California State Treasurer
Fiona Ma, CPA



Local Agency Investment Fund
P.O. Box 942809
Sacramento, CA 94209-0001
(916) 653-3001

January 26, 2024

[LAIF Home](#)
[PMIA Average Monthly Yields](#)

SACRAMENTO GROUNDWATER AUTHORITY

ADMINISTRATIVE SERVICES MANAGER
5620 BIRDCAGE STREET, #180
CITRUS HEIGHTS, CA 95610

[Tran Type Definitions](#)

Account Number: 90-34-020

December 2023 Statement

Account Summary

Total Deposit:	0.00	Beginning Balance:	1,669,705.58
Total Withdrawal:	0.00	Ending Balance:	1,669,705.58

Topic: Board Directors' Comments
Type: New Business
Item For: Information
Purpose: Routine

SUBMITTED BY: Jim Peifer
Executive Director

PRESENTER: Paul Selsky
Chair

EXECUTIVE SUMMARY

This is an information item to provide an opportunity for the Sacramento Groundwater Authority Board of Directors to report on any updates from their agency, comments, request future agenda items, recommendations, and questions.

STAFF RECOMMENDED ACTION

None. This item is for information only.

BACKGROUND

This agenda item is a standing item to provide an opportunity to report on any updates from their agency, comments, request future agenda items, recommendations, and questions.