



STEERING COMMITTEE MEETING

AGENDA

Wednesday, December 8, 2021

8:30 a.m. – 10:00 a.m.

Teleconference Meeting Only
Call-In Information Provided Below

NOTICE: Coronavirus COVID-19

See Attached Notice Regarding COVID-19

- I. **Call to Order/Roll Call** (*Please remember to keep your phone line muted and unmute when announcing yourself for attendance or speaking)
- II. **Scheduled Items – *Presentation materials to be posted on ESJGroundwater.org and emailed prior to the meeting.***

A. Discussion/Action Items

1. Approval of the November 10, 2021 Meeting Minutes ([Attachment 1-Page 4](#))
2. Discussion and Possible Action to Adopt Resolution R-21-XX Determining to Conduct Meetings Using Teleconferencing Pursuant to Government Code 54953 as Amended by AB 361 ([Attachment 2-Page 11](#))
3. State of California Department of Water Resources (DWR) Comments on the Eastern San Joaquin Groundwater Sustainability Plan ([Attachment 3-Page 14](#))
4. Recommendations to Eastern San Joaquin Groundwater Authority Board
 - a. Woodard and Curran Task Order No. 5 ([Attachment 4-Page 26](#))
 - b. David's Engineering Contract and Scope of Work ([Attachment 5-Page 49](#))
 - c. Review and Approve Budget Amendment and Resolution ([Attachments: 6.1 Staff Report Budget Table, 6.2 Budget Resolution-Page 67](#))
5. Meeting Frequency and Schedule
6. TAC Discussion and Projects ([Attachment 7-Page 77](#))

III. Staff Reports

1. DWR ([Attachment 8-Page 79](#))
2. Other Items
3. Media Clippings ([Attachment 9-Page 83](#))

EASTERN SAN JOAQUIN GROUNDWATER AUTHORITY

Steering Committee Meeting

AGENDA

(Continued)

IV. Public Comment (non-agenized items)

V. Director Comments

VI. Future Agenda Items

VII. Adjournment

Next Scheduled Meeting

Wednesday, January 12, 2022

8:30 am to 10:00 am

Location TBD

EASTERN SAN JOAQUIN GROUNDWATER AUTHORITY

Steering Committee Meeting

AGENDA

(Continued)

NOTICE: Coronavirus COVID-19

Important Notice Regarding COVID 19 and Closure of Board Chambers to the Public During Eastern San Joaquin Groundwater Authority Steering Committee Meeting

In accordance with the Ralph M. Brown Act (Cal. Gov. Code 54950 *et seq.*), as amended by Assembly Bill 361 (2021), the Eastern San Joaquin Groundwater Authority Steering Committee Members and staff will be participating in this meeting via teleconference. In the interest of maintaining appropriate social distancing, members of the public may participate in the meeting by teleconference.

In order to minimize the spread of the COVID 19 virus, the following options are available to members of the public to listen to these meetings and provide comments to the Committee Members before and during the meeting:

1. You are strongly encouraged to listen to the Eastern San Joaquin Groundwater Authority Steering Committee meetings by attending the teleconference:

Microsoft Teams meeting

Join on your computer or mobile app

[Click here to join the meeting](#)

Or call in (audio only)

[+1 209-645-4071,511005914#](#) United States, Stockton

Phone Conference ID: 511 005 914#

[Find a local number](#) | [Reset PIN](#)

[Learn More](#) | [Meeting options](#)

Once connected, we request you kindly mute your phone.

2. If you wish to make a comment on a specific agenda item, please submit your comment via email by 5:00 p.m. on the Tuesday prior to the meeting. Please submit your comment to the Secretary of the Board at ksmith@sjgov.org. Your comment will be shared with the Board members and placed into the record at the meeting. Every effort will be made to read comments received during the meeting into the record but some comments may not be read due to time limitations. Comments received after an agenda item will be made part of the record if received prior to the end of the meeting.

Eastern San Joaquin Groundwater Authority Steering Committee Meeting Minutes

Wednesday, November 10, 2021

Meeting called to order: at 8:36 a.m.

The meeting was conducted via teleconference using Microsoft Teams. Chairman Charles Winn called the meeting to order. Reminders were provided to the attendees regarding meeting procedures.

Roll Call taken:

Roll call taken of members only.

In attendance were Chairman Winn; Directors Mike Henry; Robert Holmes; Tom Flinn and Alternate Directors Walter Ward; Andrew Watkins.

Others in attendance were logged via their sign into Microsoft Teams.

Discussion / Action Items:

1. Approval of the October 20, 2021 Meeting Minutes

No amendments to the minutes.

Motion: Director Mike Henry

2nd: Director Tom Flinn

Chairman Winn asked for any Opposed or Abstains. With none provided, the minutes were approved unanimously.

2. Using Teleconference Pursuant to AB 361 During a Proclaimed State of Emergency

Mr. Matt Zidar explained that the AB361 needs to be brought up in every meeting moving forward. An action is needed to accept the prior resolution that says that we are following the Brown Act procedures and Telecom variance that were adopted to keep doing these meetings via Teams versus in person.

Motion: Mike Henry

2nd: Tom Flinn

No oppositions. Passes unanimously

3. TAC Report and Status of Model Development

Mr. Zidar recapped what was discussed at the TAC meeting in the week prior. Dr. Taghavi and Ms. Sara Miller of Woodard & Curran (W&C) recalibrated the model and are working on the development of the future baseline conditions without any projects. The technical information was presented, W&C will continue to work on the model and the goal is to present the results of the future baseline in the December meeting.

Mr. Henry inquired about the TAC meeting and is interested in seeing the minutes of that meeting. Mr. Zidar noted that he will send the meeting minutes to the Steering Committee at Mike Henry's request, along with Dr. Taghavi's presentation.

4. Basin Accounting Framework: Next Steps

Mr. Zidar provided an overview of the next steps in the Basin Accounting Framework process, noting the physics and hydrology of the water budget will be presented to help the GWA develop a water accounting framework and related policy. It was additionally noted that water from common pool sources as well as supplemental water supplies that are brought in from different places, will have to be appropriately accounted. GWA will also be working on the funding and financing strategy. Staff worked with a group of GWA members to select a contractor on board (David's Engineering). The Department of Water Resources (DWR) is providing facilitation support services through Stantec to assist with this framework and do the case studies. This work informs GWA's decisions. You should have received a survey from Stantec. Please provide feedback to your GSA and get the survey's completed. Mr. Henry stated that the survey is easy to fill out and wanted to confirm David's Engineering is the contractor. Mr. Zidar confirmed.

5. DWR GSP Implementation Grant Proposal Solicitation Package (PSP)

Talking points were sent out to GWA members along with as sample draft letter that the GSA's may use to craft comments on the PSP. Comments are due 11/29/21. There are significant issues with of the PSP as a result of the legislation which provided the funding from the budget surplus.

Mr. Glenn Prasad of San Joaquin County (SJC) reminded the Steering Committee (SC) that the last SC meeting reached consensus that 1 application from the basin will be submitted & that the GWA would be the deciding entity on which projects gets submitted to the TAC, who will review projects and bring recommendation to the SC in December and then to the GWA Board for approval.

Mr. Fritz Buchman also of SJC mentioned Round 1 & Round 2 issue (agencies that receive funding from Round 1 will not be eligible for Round 2 funding). Mr. Zidar clarified that Round 1 – \$60 Million- is focused strictly on over critically overdrafted basins, whereas Round 2 is for high and medium priority basins. Critically overdrafted basins will be eligible for the first round only. If money is taken from 1st Round, the basin won't be able to get money from the second round. Mr. Zidar further provided brief details on potential project on FIROMAR project and Mokelumne River project and suggested seeking grant funding for these projects.

Staff Reports:

1. Media Clippings

Attached in the agenda for your review.

2. 2021 Urban and Multi-benefit Drought Relief Grant Program Guidelines and Proposal Solicitation Package (PSP), October 2021 DWR Update

Mr. Zidar showed a PDF update on the DWR Grant Program and PSP.

An Update can be found from DWR, Grant page

3. DWR Update

Ms. Spier stated that next Tuesday the 16th, DWR is holding a workshop for. The small systems grant funding has been open for a while.

Public Comment:

Mr. Buchman noted that a written public comment was read out loud from Ms. Mary Elizabeth. The comment is included in the minutes.

Director Comment:

Chairman Winn asked “working with different organizations, are there concerns the same as ours? Should we join together to show concerns of a group of organization?”

Mr. Zidar responded that right now we are trying to raise awareness share information with other basins.

Future Agenda Items:

Meeting frequency – It was suggested that the SC consider making a recommendation to the Board to meet more frequently since we are entering into some complex discussions. Monthly rather than quarterly should be considered.

Drinking water – Alternate Director (SSJID) Mr. Brandon Nakagawa inquired if new well permits & replacement well data has been an issue. He added that it’s a good idea for group to obtain & review the well permits being issued.

Adjournment: Meeting was adjourned at 9:38 a.m.

From: Mary Elizabeth <mebeth@outlook.com>

Date: November 10, 2021 at 6:17:14 AM PST

To: ksmith@sjgov.org, "Zidar, Matt [PW]" <mzidar@sjgov.org>, "Balaji, Kris [PW]" <kbalaji@sjgov.org>, MOTHERLODE-DSG-EXCOM@lists.sierraclub.org

Subject: Comment for EASTERN SAN JOAQUIN GROUNDWATER AUTHORITY Steering Committee Meeting

CAUTION: This email is originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Greetings,

Please accept these comments for the record of the meeting and if possible read as comments are short at today's meeting. I understand that these comments are submitted after 5:00 yesterday in advance of today's 8:30 meeting.

Impacts to domestic wells relating to offsite contamination sources and decreased groundwater levels should be considered under SGMA and efforts put forth to mitigate in order to obtain sustainability for these indicators. Our most vulnerable and disadvantaged communities that have water supplies impacted by these indicators must be considered for extra funding opportunities. The GWA position that domestic well supply limitations should not be considered as a basis for funding selection is objectionable. I believe that the GWA can view these funding constraints as an opportunity to more effectively consider domestic well impacts and develop a groundwater sustainability plan that considers all stakeholders.

Mary Elizabeth M.S., R.E.H.S.

**Eastern San Joaquin Groundwater Authority
Steering Committee Meeting Roll Call / Vote
November 10, 2021 8:30 AM**

A.2.

Chairman Chuck Winn	Y	San Joaquin County	209-953-1160	cwinn@sjgov.org
Alt Director Mel Lytle		City of Stockton	209-937-5614	mel.lytle@stocktonca.gov
Director Mike Henry	Y	Lockeford Community Services District	209-712-4014	midot@att.net
Alt Director Walter Ward	Y	Eastside San Joaquin GSA	209-525-6710	wward@envres.org
Director Robert Holmes	Y	South San Joaquin GSA	209-484-7678	rholmes@ssjid.com
Alt Director Andrew Watkins	Y	Stockton East Water District	209-948-0333	watkins.andrew@verizon.net
Director Tom Flinn	Y	North San Joaquin Water Conservation District	209-663-8760	tomflinn2@me.com

Motion - Henry
2nd - Flinn

Eastern San Joaquin Groundwater Authority
Steering Committee Meeting Sign-In
November 10, 2021

8:30 A.M.

A2

Chairman Chuck Winn	•	San Joaquin County	209-953-1160	cwinn@sigov.org
Alt Director Mel Lytle		City of Stockton	209-937-5614	mel.lytle@stocktonca.gov
Director Mike Henry	•	Lockeford Community Services District	209-712-4014	midot@att.net
Alt Director Walter Ward	•	Eastside San Joaquin GSA	209-525-6710	wward@envres.org
Director Robert Holmes	•	South San Joaquin GSA	209-484-7678	rholmes@ssjid.com
Alt Director Andrew Watkins	•	Stockton East Water District	209-948-0333	watkins.andrew@verizon.net
Director Tom Flinn	•	North San Joaquin Water Conservation District	209-663-8760	tomflinn2@me.com
Kris Balaji	•	San Joaquin County	468-3100	kbalaji@sigov.org
Fritz Buchman	•	San Joaquin County	468-3034	fbuchman@sigov.org
Matt Zidar	•	San Joaquin County	953-7460	mzidar@sigov.org
Brandon Nakagawa *	•	South San Joaquin GSA - Alternate	209-249-4613	bnakagawa@ssjid.com
Juan Ochoa	•	SJC WR		
David Breitenbucher	•	City of Manteca		
Glenn Prasad	•	Water Resources		
Michael Hurley	•	Cal Water		
Rodney Fricke	•			
Ali Taghavi	•	Woodward + Curran		
Jose Coronado	•	SJC WR		
Brenda Kiely	•	SJC WR		

Blanton Myron	'			
Jan Spolella	'	Attorney		
Leslie Dumas	'	Woodward & Curran		
Erica Mangano	'	city of Mantua,		
Kirshn Smith	'	SJC WP		
Sally Perez	'	SJC, WP		
Brandon (Guest)	'			
Steven Shin	'			
Maryn Boud n place of Mary Elizabeth (late) a:30am				
Melissa Spier	'	DUP		
(209) 448-0333				
(209) 416-3211				
(209) 456-8426				

BEFORE THE STEERING COMMITTEE OF
EASTERN SAN JOAQUIN GROUNDWATER AUTHORITY

RESOLUTION

R-21-##

A RESOLUTION OF THE STEERING COMMITTEE OF THE EASTERN SAN JOAQUIN GROUNDWATER AUTHORITY (ESJGWA) DETERMINING TO CONDUCT MEETINGS OF THE ESJGWA STEERING COMMITTEE USING TELECONFERENCING PURSUANT TO GOVERNMENT CODE 54953 AS AMENDED BY AB 361 FOR THE PERIOD DECEMBER 8, 2021 TO JANUARY 7, 2021.

WHEREAS, the Eastern San Joaquin Groundwater Authority (the “Authority”) Steering Committee (the “Committee”) is committed to preserving and nurturing public access and participation in meetings of the Board of Directors; and

WHEREAS, all meetings the Authority’s legislative bodies are open and public, as required by the Ralph M. Brown Act (Cal. Gov. Code 54950 – 54963) (the “Brown Act”), so that any member of the public may attend, participate, and watch the Authority’s legislative bodies conduct their business; and

WHEREAS, the Brown Act, Government Code section 54953(e), as amended by AB 361 (2021), makes provisions for remote teleconferencing participation in meetings by members of a legislative body, without compliance with the requirements of Government Code section 54953(b)(3), subject to the existence of certain conditions; and

WHEREAS, the Committee previously adopted resolutions, on October 13, and November 10, finding that the requisite conditions exist for the legislative body of the District to conduct remote teleconference meetings without compliance with paragraph (3) of subdivision (b) of section 54953; and

WHEREAS, a required condition is that a state of emergency is declared by the Governor pursuant to Government Code section 8625, proclaiming the existence of conditions of disaster or of extreme peril to the safety of persons and property within the state caused by conditions as described in Government Code section 8558; and

WHEREAS, it is further required that state or local officials have imposed or recommended measures to promote social distancing, or the legislative body meeting in person would present imminent risks to the health and safety of attendees; and

WHEREAS, on March 4, 2020, the Governor proclaimed a State of Emergency to exist in California as a result of the threat of COVID-19; and

WHEREAS, Cal-OSHA adopted emergency regulations (Section 3205) imposing requirements on California employers, including measures to promote social distancing; and

WHEREAS, an Order of the San Joaquin County Public Health Officer acknowledges that close contact to other persons increases the risk of transmission of COVID-19; and

WHEREAS, currently the dominant strain of COVID-19 in the country, is more transmissible than prior variants of the virus, may cause more severe illness, and that even fully vaccinated individuals can spread the virus to others resulting in rapid and alarming rates of COVID-19 cases and hospitalizations, therefore, meeting in person would present imminent risk to the health or safety of attendees.

NOW, THEREFORE, BE IT RESOLVED by the Committee as follows:

Section 1. Recitals. The Recitals set forth above are true and correct and are incorporated into this Resolution by this reference.

Section 2. Finding of Imminent Risk to Health or Safety of Attendees. The Committee hereby reconsiders the circumstances of the current State of Emergency proclaimed by the Governor on March 4, 2020, and finds that the current dominant strain of COVID-19 in the country, is more transmissible than prior variants of the virus, may cause more severe illness, and that even fully vaccinated individuals can spread the virus to others resulting in rapid and alarming rates of COVID-19 cases and hospitalizations has caused, and will continue to cause, conditions of peril to the safety of persons, thereby presenting an imminent risk to health and/or safety to the Authority's staff and attendees of the Authority's public meetings; and

Section 3. Teleconference Meetings. The Committee does hereby determine as a result of the State of Emergency proclaimed by the Governor, and the recommended measures to promote social distancing made by State and local officials that the Authority Steering Committee may conduct their meetings without compliance with paragraph (3) of subdivision (b) of Government Code section 54953, as authorized by subdivision (e)(1)(A) and (B) of section 54953, and shall comply with the requirements to provide the public with access to the meetings as prescribed in paragraph (2) of subdivision (e) of section 54953; and

Section 4. Direction to Staff. The Authority staff are hereby authorized and directed to take all actions necessary to carry out the intent and purpose of this Resolution including, conducting open and public meetings in accordance with Government Code section 54953(e) and other applicable provisions of the Brown Act.

Section 5. Effective Date of Resolution. This Resolution shall take effect immediately upon its adoption.

PASSED AND ADOPTED _____, by the following vote of the Eastern San Joaquin Groundwater Authority Steering Committee, to wit:

AYES:

NOES:

ABSENT:

CHUCK WINN, Chairman



CALIFORNIA DEPARTMENT OF WATER RESOURCES

SUSTAINABLE GROUNDWATER MANAGEMENT OFFICE

901 P Street, Room 313-B | Sacramento, CA 95814 | P.O. Box 942836 | Sacramento, CA 94236-0001

November 18, 2021

Kris Balaji, PMP, P.E.
Eastern San Joaquin Subbasin Plan Administrator
1810 E. Hazelton Avenue, Stockton, CA 95201
kbalaji@sjgov.org

RE: Eastern San Joaquin Subbasin - 2020 Groundwater Sustainability Plan

Dear Kris Balaji,

The Eastern San Joaquin Groundwater Authority submitted the Eastern San Joaquin Groundwater Subbasin (Subbasin) Groundwater Sustainability Plan (GSP) to the Department of Water Resources (Department) for evaluation and assessment as required by the Sustainable Groundwater Management Act (SGMA).¹

Department staff have substantially completed an initial review of the GSP and have identified potential deficiencies (see the enclosed document) which may preclude the Department's approval.² Department staff have also developed potential corrective actions³ for each potential deficiency. The potential deficiencies do not necessarily represent all deficiencies or discrepancies that the Department may identify in the GSP but focus on those deficiencies that staff believe, if not addressed, could lead to a determination that the GSP is incomplete or inadequate.⁴ This letter initiates consultation between the Department, the Plan Manager, and the Subbasin's 15 groundwater sustainability agencies (GSAs) regarding the amount of time needed to address the potential deficiencies and corrective actions. The Department will issue a final determination as described under the GSP Regulations⁵ no later than January 29, 2022.

If the Department determines the GSP to be incomplete, the deficiencies precluding approval would need to be addressed within a period not to exceed 180 days from the

¹ Water Code § 10720 et seq.

² 23 CCR § 355.2(e)(2).

³ 23 CCR § 355.2(e)(2)(B).

⁴ The Department recognizes that litigation regarding the GSP has been filed. The filing of litigation does not alter or affect the Department's mandate to issue its final assessment of the Agency's groundwater sustainability plan (GSP or Plan) for the basin within two years of its submission. (Water Code §10733.4(d).) Furthermore, the Department's assessment will consist of a technical review of the submitted Plan, as required by SGMA and the GSP Regulations, and the filing of the litigation did not in any way influence or affect the Department's evaluation of the Plan. The Department expresses no opinion on the claims of the parties in the pending litigation involving the GSP.

⁵ 23 CCR Division 2, Chapter 1.5, Subchapter 2.

determination. A determination of incomplete would allow the GSAs to formally address identified deficiencies and submit a revised GSP to the Department for further review and evaluation. Department staff will contact you before making the final determination to discuss the potential deficiencies and the amount of time needed by the GSAs to address the potential corrective actions detailed in the enclosed document.

Materials submitted to the Department to address deficiencies must be part of the GSP. The GSAs must justify that any materials submitted are part of the revised GSP; this justification is also part of the submittal. To facilitate the Department's review of the revised GSP, the GSAs should also provide a companion document with tracked changes of modifications made to address deficiencies. The GSAs must submit the revised GSP through the DWR SGMA Portal where, as is currently available, interested parties may provide comments on submitted materials to the Department.

Department staff will work expeditiously to review materials submitted to address deficiencies and to evaluate compliance of the revised GSP. The Department will keep a GSP status designated as incomplete during its review of the submitted materials. The Department could subsequently approve an incomplete GSP if the GSAs have taken corrective actions to address deficiencies identified by the Department within a period not to exceed 180 days from the determination. The Department could also issue a determination of inadequate for an incomplete GSP if the Department, after consultation with the State Water Resources Control Board, determines the GSAs have not taken sufficient actions to correct the deficiencies identified by the Department.

If you have any questions, please do not hesitate to contact the Sustainable Groundwater Management Office staff by emailing sgmps@water.ca.gov.

Thank you,

Paul Gosselin

Paul Gosselin
Deputy Director for Sustainable Groundwater Management

Enclosure:

1. Potential Deficiencies and Corrective Actions

2020 Groundwater Sustainability Plan
 Eastern San Joaquin Subbasin (Basin No. 5-022.01)

Potential Deficiencies and Corrective Actions

Department of Water Resources (Department) staff have identified deficiencies regarding the Eastern San Joaquin Subbasin (Subbasin) Groundwater Sustainability Plan (GSP) that may preclude the Department's approval. Therefore, consistent with the GSP Regulations, Department staff are considering corrective actions the Subbasin's groundwater sustainability agencies (GSAs) should review to determine whether and how the deficiencies can be addressed. The deficiencies and potential corrective actions are explained below, including the general regulatory background, the specific deficiencies identified in the GSP, and specific actions to address the deficiencies. The specific actions identified are potential corrective actions until the Department makes a final determination.

General Background

Potential deficiencies identified in the Eastern San Joaquin Subbasin GSP relate to the development and documentation of sustainable management criteria, including undesirable results and minimum thresholds that define when undesirable results may occur.

The Department's GSP Regulations describe several required elements of a GSP under the heading of "Sustainable Management Criteria"⁶, including undesirable results, minimum thresholds, and measurable objectives. These components of sustainable management criteria must be quantified so that GSAs, the Department, and other interested parties can monitor progress towards sustainability in a basin consistently and objectively.

A GSA relies on local experience, public outreach and involvement, and information about the basin it has described in the GSP basin setting (i.e., the hydrogeologic conceptual model, the description of current and historical groundwater conditions, and the water budget), among other factors, to develop criteria for defining undesirable results and setting minimum thresholds and measurable objectives.⁷

The Sustainable Groundwater Management Act (SGMA) defines sustainable groundwater management as the management and use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing undesirable results.⁸ Avoidance of undesirable results is thus explicitly part of sustainable groundwater management as established by SGMA and critical to the success of a GSP.

The definition of undesirable results is critical to establishing an objective method to define and measure sustainability for a basin. As an initial matter, SGMA provides a

⁶ 23 CCR § Article 5, Subarticle 3.

⁷ 23 CCR §§ 354.8, 354.10, 354.12 *et seq.*

⁸ Water Code § 10721(v).

Attachment 1

Eastern San Joaquin Subbasin (Basin No. 5-022.01)

qualitative definition of undesirable results as “one or more” of six specific “effects caused by groundwater conditions occurring throughout the basin.”⁹

GSAs define, in their GSPs, the specific significant and unreasonable effects that would constitute undesirable results and the groundwater conditions that would produce those results in their basins.¹⁰ The GSAs’ definition must include a description of the processes and criteria relied upon to define undesirable results and describe the effect of undesirable results on the beneficial uses and users of groundwater, surface land uses (for subsidence), and surface water (for interconnected surface water).¹¹

SGMA leaves the task of establishing undesirable results and setting thresholds largely to the discretion of the GSAs, subject to review by the Department. In its review, the Department requires a thorough and reasonable analysis of the groundwater conditions and the associated effects the GSAs must manage the groundwater basin to avoid, and the GSAs’ stated rationale for setting objective and quantitative sustainable management criteria to prevent those undesirable conditions from occurring.¹² If a GSP does not meet this requirement, the Department cannot evaluate the GSAs’ likelihood of achieving their sustainability goal. That does not necessarily mean that the GSP or its objectives are inherently unreasonable; rather, the Department cannot evaluate whether the GSP’s implementation would successfully achieve sustainable management if it is unclear what undesirable conditions the GSAs seek to avoid.

Potential Deficiency 1. The GSP lacks sufficient justification for identifying that undesirable results for chronic lowering of groundwater levels, subsidence, and depletion of interconnected surface waters can only occur in consecutive non-dry water year types. The GSP also lacks sufficient explanation for its chronic lowering of groundwater levels minimum thresholds and undesirable results.

The first potential deficiency relates to the GSP’s requirement of two consecutive non-dry (i.e., below normal, above normal, or wet) water-year types and the exclusion of dry and critically dry water-year types in the identification of undesirable results for chronic lowering of groundwater levels, and, by proxy, land subsidence and depletions of interconnected surface water.

Background

Related to this potential deficiency, SGMA defines the term “Undesirable Result,” in part, as one or more of the following effects caused by groundwater conditions occurring throughout the basin:¹³

⁹ Water Code § 10721(x).

¹⁰ California Department of Water Resources, Best Management Practices for the Sustainable Management of Groundwater: Sustainable Management Criteria (Draft), November 2017.

¹¹ 23 CCR §§ 354.26(b), 354.28(c)(5), 354.28(c)(6).

¹² 23 CCR § 355.4(b)(1).

¹³ Water Code § 10721(x).

Attachment 1

Eastern San Joaquin Subbasin (Basin No. 5-022.01)

- Chronic lowering of groundwater levels indicating a significant and unreasonable depletion of supply if continued over the planning and implementation horizon. Overdraft during a period of drought is not sufficient to establish a chronic lowering of groundwater levels if extractions and groundwater recharge are managed as necessary to ensure that reductions in groundwater levels or storage during a period of drought are offset by increases in groundwater levels or storage during other periods.
- Significant and unreasonable land subsidence that substantially interferes with surface land uses.
- Depletions of interconnected surface water that have significant and unreasonable adverse impacts on beneficial uses of the surface water.

Potential Deficiency Details

Department staff identified two areas of concern, described below, which, if not addressed, may preclude approval of the GSP. Regarding the first area of concern, the GSP identifies that an undesirable result occurs “when at least 25 percent of representative monitoring wells used to monitor groundwater levels (5 of 20 wells in the Subbasin) fall below their minimum level thresholds for two consecutive years that are categorized as non-dry years (below-normal, above-normal, or wet), according to the San Joaquin Valley Water Year Hydrologic Classification.” The GSP further states that “the lowering of groundwater levels during consecutive dry or critically-dry years is not considered to be unreasonable, and would therefore not be considered an undesirable result, unless the levels do not rebound to above the thresholds following those consecutive non-dry years.”¹⁴

Department staff find that the water-year type requirement in the definition of the undesirable result for chronic lowering of groundwater levels (i.e., two consecutive non-dry years) is not consistent with the intent of SGMA. The water-year type requirement could potentially allow for unmanaged and continued lowering of groundwater levels under certain hydrologic or climatic conditions that have occurred historically. A review of historical San Joaquin Valley water-year type classifications¹⁵ indicates the potential for dry periods without the occurrence of a second consecutive non-dry year to persist for greater than ten years (see, e.g., the 11 years from water years 1985 through 1995). Department staff also note that concurrent below normal, above normal, or wet years occurred in only five of the last twenty water years from 2001 through 2020. Because of this definition, GSAs in the Subbasin could disregard potential impacts of groundwater level declines below the minimum thresholds during extended periods of dry years, even if interrupted by normal or wet years.

¹⁴ ESJ GSP, p. 253.

¹⁵ Chronological Reconstructed Sacramento and San Joaquin Valley Water Year Hydrologic Classification Indices, Water Year 1901 through 2020. California Department of Water Resources, <https://cdec.water.ca.gov/reportapp/javareports?name=WSIHIST>.

Attachment 1
Eastern San Joaquin Subbasin (Basin No. 5-022.01)

Department staff also find this methodology inconsistent with other portions of the GSP. For example, while describing measurable objectives for groundwater levels, the GSP states, “the margin of operational flexibility is intended to accommodate droughts, climate change, conjunctive use operations, or other groundwater management activities. The margin of operational flexibility is defined as the difference between the minimum threshold and the measurable objective.”¹⁶ Based on these statements, it appears the minimum thresholds already accommodate drought conditions, so it is unclear why the GSP’s definition of undesirable results further excludes minimum threshold exceedances during dry water years. (See Potential Corrective Action 1a.)

SGMA states that “overdraft during a period of drought is not sufficient to establish a chronic lowering of groundwater levels if extractions and groundwater recharge are managed as necessary to ensure that reductions in groundwater levels or storage during a period of drought are offset by increases in groundwater levels or storage during other periods.”¹⁷ If the GSAs intended to incorporate this concept into their definition of the undesirable result for chronic lowering of groundwater levels, the GSP fails to identify specific extraction and groundwater recharge management actions the GSAs would implement¹⁸ or otherwise describe how the Subbasin would be managed to offset, by increases in groundwater levels or storage during other periods, dry year reductions of groundwater storage. The GSP identifies many projects that, once implemented, may lead to the elimination of long-term overdraft conditions in the Subbasin. However, the GSP does not sufficiently detail how projects and management actions, in conjunction with the proposed chronic lowering of groundwater levels sustainable management criteria, will offset drought-related groundwater reductions and avoid significant and unreasonable impacts when groundwater level minimum thresholds are potentially exceeded for an extended period in the absence of two consecutive non-dry years. (See Potential Corrective Action 1b.)

As noted above, the GSP states that minimum thresholds developed for chronic lowering of groundwater levels serve as proxies for subsidence¹⁹ and depletion of interconnected surface waters.²⁰ Therefore, Department staff assume the GSAs intend to apply the same water-year type criteria to undesirable results for those sustainability indicators (i.e., land subsidence or depletion of interconnected surface water undesirable results do not occur until groundwater levels exceed the thresholds for two consecutive non-dry water years). However, where SGMA acknowledges that groundwater level declines during drought periods are not sufficient to cause an undesirable result for chronic lowering of groundwater levels, the statute does not similarly provide an exception for subsidence or stream depletion during periods of drought. (See Potential Corrective Action 1c.)

¹⁶ ESJ GSP, p. 259.

¹⁷ Water Code § 10721(x)(1).

¹⁸ 23 CCR § 354.44(b)(9).

¹⁹ ESJ GSP, p. 270.

²⁰ ESJ GSP, p. 271.

Attachment 1
Eastern San Joaquin Subbasin (Basin No. 5-022.01)

Department staff's second area of concern is the GSP's evaluation of the effects of the proposed minimum thresholds and undesirable results on beneficial uses and users of groundwater. The GSP identifies that the chronic lowering of groundwater levels could cause undesirable results from wells going dry, reductions in pumping capacities, increased pumping costs, the need for deeper well installations or lowering of pumps, and adverse impacts to environmental uses and users.²¹ The GSP builds an analysis of domestic wells going dry into its minimum thresholds, thereby considering the factors of wells going dry and the need for deeper well installations. However, it does not address how the management criteria address the other factors identified by the GSAs as potential undesirable results, including reductions in pumping capacity or increased pumping costs for shallow groundwater users, or adverse impacts to environmental uses and users.

The GSAs set minimum thresholds in the Subbasin at the shallower of the 10th percentile domestic [or municipal] well depth or the historical low groundwater levels with a subtracted buffer value, which the GSP states allows for operational flexibility.²² These minimum threshold values generally allow groundwater levels to decline below historic lows; minimum thresholds defined using the buffer value approach allow twice the historical drawdown from the shallowest recorded groundwater levels.²³ Aside from the GSP's domestic well analysis, the only description of how minimum thresholds were evaluated to avoid undesirable results appears to be the statements that "for the majority of the Subbasin, GSA representatives identified no undesirable results, even if groundwater were to reach historical low groundwater levels" and that no GSA indicated undesirable results would occur "if the minimum threshold was set deeper than the [historic low] based on their understanding."²⁴ The GSP provides no further explanation or description of how the individual GSAs concluded that there would be no undesirable results based on the minimum thresholds.

The GSP only considers an undesirable result to occur for groundwater levels in the Subbasin when at least 25 percent of representative monitoring wells (5 of 20 wells) fall below their minimum threshold value for two consecutive non-dry water years.²⁵ The GSP does not justify or discuss how the GSAs developed the 25 percent threshold, nor does it explain or disclose the potential impacts anticipated during extended drier climate conditions using this threshold. In other words, the proposed management program may lead to potential effects on domestic wells or other beneficial uses and users during prolonged dry- or below-normal periods, and that information should, at a minimum, be disclosed and considered in the GSP. (See Potential Corrective Action 1d.)

If, after considering this potential deficiency, the GSAs retain minimum thresholds that allow for continued lowering of groundwater levels, it is reasonable to assume that some

²¹ ESJ GSP, p. 253.

²² ESJ GSP, p. 254.

²³ ESJ GSP, p. 258.

²⁴ ESJ GSP, p. 255.

²⁵ ESJ GSP, p. 253.

Attachment 1

Eastern San Joaquin Subbasin (Basin No. 5-022.01)

groundwater well impacts (e.g., loss of production capacity) will occur during the implementation of the GSP. SGMA requires GSAs to consider the interests of all groundwater uses and users and to implement their GSPs to mitigate overdraft conditions.²⁶ Implementing specific projects and management actions prevents undesirable results and achieves the sustainable yield of the basin. The GSAs should describe how projects and management actions would address drinking water impacts due to continued overdraft between the start of GSP implementation and the achievement of the sustainability goal. If the GSP does not include projects or management actions to address drinking water impacts, the GSP should contain a thorough discussion, with supporting facts and rationale, explaining how and why GSAs determined not to include actions to address those impacts from continued groundwater lowering below pre-SGMA levels. (See Potential Corrective Action 1e.)

Additionally, related to the groundwater level declines allowed for by the GSA's minimum thresholds, the GSAs have not explained how those groundwater level declines relate to the degradation of groundwater quality sustainability indicator. GSAs must describe, among other items, the relationship between minimum thresholds for a given sustainability indicator (in this case, chronic lowering of groundwater levels) and the other sustainability indicators.²⁷ The GSAs generally commit to monitoring a wide range of water quality constituents but they have only developed sustainable management criteria for total dissolved solids because they state they have not observed a causal nexus between groundwater management and degradation associated with the other constituents. While Department staff are not aware of evidence sufficient to conclude that the GSAs acted unreasonably by focusing on total dissolved solids, it is clear that the GSAs did not consider, or at least did not document, the potential for degradation to occur due to further lowering of groundwater levels beyond the historic lows. (See Potential Corrective Action 1f.)

Potential Corrective Action 1

- a) Department staff believe the management approach described in the GSP, which couples minimum thresholds and measurable objectives that account for operational flexibility during dry periods with a definition of undesirable results that disregards minimum threshold exceedances in all years except consecutive below normal, above normal, or wet years, to be inconsistent with the objectives of SGMA. Therefore, the GSAs should remove the water-year type requirement from the GSP's undesirable result definition.
- b) The GSP should be revised to include specific projects and management actions the GSAs would implement to offset drought-year groundwater level declines.
- c) The GSAs should thoroughly explain how their approach avoids undesirable results for subsidence and depletion of interconnected surface waters, as SGMA does not

²⁶ 23 CCR § 355.4(b)(4), 355.4(b)(6).

²⁷ 23 CCR § 354.28(b)(2).

Attachment 1

Eastern San Joaquin Subbasin (Basin No. 5-022.01)

include an allowance or exemption for those conditions to continue in periods of drought.

- d) Removing the water-year type requirement from the definition of an undesirable result (item a, above) would result in a GSP with groundwater level minimum thresholds designed to be generally protective of 90 percent of domestic wells regardless of regional hydrologic conditions. In that scenario, the GSAs should explain the rationale for determining that groundwater levels can exceed those thresholds at 25 percent of monitoring sites for two consecutive years before the effects would be considered significant and unreasonable. The GSAs should also explain how other factors they identified as "potential undesirable results" (e.g., adverse impacts to environmental uses and users) factored into selecting minimum thresholds and describe anticipated effects of the thresholds on beneficial uses and users of groundwater. Furthermore, the GSAs should explain whether other drinking water users that may rely on shallow wells, such as public water systems and state small water systems, were considered in the GSAs' site-specific thresholds. If not, the GSAs should conduct outreach with those users and incorporate their shallow wells, as applicable, into the site-specific minimum thresholds and measurable objectives.
- e) The GSAs should revise the GSP to describe how they would address drinking water impacts caused by continued overdraft during the period between the start of GSP implementation and achieving the sustainability goal. If the GSP does not include projects or management actions to address those impacts, the GSP should contain a thorough discussion, with supporting facts and rationale, explaining how and why the GSAs determined not to include specific actions to address drinking water impacts from continued groundwater lowering below pre-SGMA levels.
- f) The GSP should be revised to explain how the GSAs will assess groundwater quality degradation in areas where further groundwater level decline, below historic lows, is allowed via the minimum thresholds. The GSAs should further describe how they will coordinate with the appropriate groundwater users, including drinking water, environmental, and irrigation users as identified in the GSP. The GSAs should also discuss efforts to coordinate with water quality regulatory agencies and programs in the Subbasin to understand and develop a process for determining if continued lowering of groundwater levels is resulting in degraded water quality in the Subbasin during GSP implementation.

Attachment 1
Eastern San Joaquin Subbasin (Basin No. 5-022.01)

Potential Deficiency 2. The GSP does not provide enough information to support the use of the chronic lowering of groundwater level sustainable management criteria and representative monitoring network as a proxy for land subsidence.

Background

The GSP Regulations state that minimum thresholds for land subsidence should identify the rate and extent of subsidence that substantially interferes with surface land uses and may lead to undesirable results. These quantitative values should be supported by:²⁸

- The identification of land uses or property interests potentially affected by land subsidence;
- An explanation of how impacts to those land uses or property interests were considered when establishing minimum thresholds;
- Maps or graphs showing the rates and extents of land subsidence defined by the minimum thresholds.

The GSP Regulations allow the use of groundwater elevations as a proxy for land subsidence. However, GSAs must demonstrate a significant correlation between groundwater levels and land subsidence and must demonstrate that groundwater level minimum thresholds represent a reasonable proxy for avoiding land subsidence undesirable results. Additionally, the GSAs must demonstrate how the monitoring network is adequate to identify undesirable results for both metrics.

Potential Deficiency Details

Department staff find that the GSP does not adequately identify or define minimum thresholds and undesirable results for land subsidence. The GSP also does not provide adequate justification and explanation for using the groundwater level minimum thresholds and representative monitoring network as a proxy for land subsidence.

Generally, the GSP identifies that irrecoverable loss of groundwater storage and damage to infrastructure, including water conveyance facilities and flood control facilities, are potential impacts of land subsidence.²⁹ However, the GSP does not identify specific infrastructure locations, particularly those associated with public safety, in the Subbasin and the rate and extent of subsidence that would substantially interfere with those land surface uses and may lead to undesirable results. Additionally, without identifying infrastructure considered at risk for interference from land subsidence, Department staff cannot evaluate whether the groundwater level representative monitoring network is adequate to detect potential subsidence-related impacts.

Department staff find the GSP does not provide adequate evidence to demonstrate a significant correlation between groundwater levels and land subsidence in the Subbasin.

²⁸ 23 CCR § 354.28(c)(5).

²⁹ ESJ GSP, p. 269.

Attachment 1

Eastern San Joaquin Subbasin (Basin No. 5-022.01)

Without explaining this correlation, the Department cannot evaluate whether the groundwater level minimum thresholds and associated conditions required for identifying an undesirable result would protect against significant and unreasonable impacts related to land subsidence. The GSP states a significant correlation exists between groundwater levels and land subsidence, with lowering groundwater levels driving further land subsidence.³⁰ Department staff agree with this general statement. However, the GSP fails to provide adequate evidence to evaluate further this correlation, specifically concerning potential subsidence caused by groundwater levels falling below historic lows, as would be allowed by the groundwater level minimum thresholds set in the GSP.

The GSP's justification for using the proposed groundwater level minimum thresholds as a proxy for land subsidence appears to rely mainly on an incomplete analysis and a data set with significant data gaps. The GSP states there are no historical records of significant and unreasonable land subsidence in the Subbasin.³¹ The GSP also states that there is a lack of direct land subsidence monitoring in the Subbasin.³² The GSP uses this absence of historical records to assert that historically dewatered geologic units are not compressible and, therefore, not at risk for land subsidence. Although groundwater level minimum thresholds are below historic lows, the GSP states that the GSAs do not expect further declines in groundwater levels to dewater materials deeper than 205 feet below ground surface (the deepest groundwater level minimum threshold value in the Subbasin).³³ The GSP states that subsurface materials encountered up to this depth are the same [non-compressible] geologic units that have been historically dewatered.

Department staff find multiple aspects of this justification speculative and not supported by the best available science. First, the GSP presents no analysis of historic groundwater levels or historically dewatered subsurface materials to support the conclusion that the geologic units are not compressible. Second, the GSP does not provide an evaluation showing how additional declines in groundwater levels would only affect subsurface materials similar to those which have been historically dewatered. Third, the GSP is unclear on whether the conditions required to identify an undesirable result for chronic lowering of groundwater levels in the Subbasin are also required to identify an undesirable result for land subsidence. Management proposed in the GSP could allow groundwater level minimum thresholds to be exceeded in periods where two consecutive non-dry years do not occur, which does not support the claim that only materials up to the deepest groundwater level minimum threshold (205 feet below ground surface) will be dewatered.

Department staff note that the legislature intended that implementation of SGMA would avoid or minimize subsidence³⁴ once GSAs achieve the sustainability goal for a basin. Without analysis examining how allowable groundwater levels below those historically

³⁰ ESJ GSP, p. 270.

³¹ ESJ GSP, p. 269.

³² ESJ GSP, p. 270.

³³ ESJ GSP, p. 270.

³⁴ Water Code § 10720.1(e).

Attachment 1
Eastern San Joaquin Subbasin (Basin No. 5-022.01)

experienced in the Subbasin may affect land subsidence, Department staff cannot determine if the GSP adequately avoids or minimizes land subsidence. While SGMA does not require prevention of all land subsidence, the GSP does not provide sufficient evidence to conclude that the proposed chronic lowering of groundwater level minimum thresholds are adequate to detect and avoid land subsidence undesirable results.

Potential Corrective Action 2

The GSAs must provide detailed information to demonstrate how the use of the chronic lowering of groundwater level minimum thresholds are sufficient as a proxy to detect and avoid significant and unreasonable land subsidence that substantially interferes with surface land uses. Alternatively, the GSAs could commit to utilizing direct monitoring for subsidence, e.g., with remotely sensed subsidence data provided by the Department. In that case, the GSAs should develop sustainable management criteria based on rates and extents of subsidence. Department staff suggest the GSAs consider and address the following issues:

1. The GSAs should revise the GSP to identify the total subsidence that critical infrastructure in the Subbasin can tolerate during GSP implementation. Support this identification with information on the effects of subsidence on land surface beneficial uses and users and the amount of subsidence that would substantially interfere with those uses and users.
2. The GSAs should revise the GSP to document a significant correlation between groundwater levels and specific amounts or rates of land subsidence. The analysis should account for potential subsidence related to groundwater level declines below historical lows and further declines that are allowed to exceed minimum thresholds (i.e., during non-consecutive non-dry years, if applicable based on the resolution to Potential Deficiency 1, above). This analysis should demonstrate that groundwater level declines allowed during GSP implementation are preventative of the rates and magnitudes of land subsidence considered significant and unreasonable based on the identified infrastructure of concern. If there is not sufficient data to establish a correlation, the GSAs should consider other options such as direct monitoring of land subsidence (e.g., remotely sensed data provided by the Department, extensometers, or GPS stations) until such time that the GSAs can establish a correlation.
3. The GSAs should explain how the groundwater level representative monitoring network is sufficient to detect significant and unreasonable subsidence that may substantially interfere with land uses, specifically any identified infrastructure of concern. If the groundwater level monitoring network alone is not adequate, based on specific infrastructure locations, Department staff suggest incorporating continued analysis of available InSAR data to cover areas with data gaps.



EASTERN SAN JOAQUIN GROUNDWATER AUTHORITY

STAFF REPORT

December 2, 2021

To: TAC, Steering Committee and Board
From: Matt Zidar, Water Resources Manager
RE: Agreement A-20-1, Task Order No. 5 (Woodard Curran Inc.)
Date: December 2, 2021

Summary and Background

Agreement Number A-20-1, "Agreement for Consulting Services for the implementation of the Eastern Joaquin Subbasin Groundwater Sustainability Plan" (GSP), entered into February 12, 2020 ("Effective Date") by and between the Eastern San Joaquin Groundwater Authority (GWA) and Woodard & Curran, Inc. (W&C), allows for the issuance of Task Orders which identify the specific scope of work, schedule, budget and assigned staff for additional work to be performed under the Agreement. Task Order No. 5 to Agreement A-20-1 identifies the scope, schedule and budget. Pursuant to the GWA policy, the Director of Public Works, as Secretary to the GWA Board, can sign agreements for work where such items are in the adopted budget and with the concurrence of the Steering Committee.

Discussion

A. Task Order No. 5 contains the following three components:

1. Component 1: Water Year 2021 Annual Report (\$40k)

W&C will prepare and submit an annual report to the Department of Water Resources by April 1, 2022.

2. Component 2: Support for the Accounting Framework and Funding Alternatives (\$25k)

GWA is in the process of finalizing the water budgets for the Eastern San Joaquin Groundwater Subbasin. Additional modeling scenarios, and refinement of water budgets is likely since the development of the accounting framework and funding financing alternatives will require extensive discussion amongst GWA members. Under this component, W&C will provide as-needed modeling, and technical guidance to support the accounting framework and funding alternatives.

3. Component 3: Support for GSP Comments (\$25k)

DWR has completed their review of the Eastern San Joaquin Subbasin – 2020 Groundwater Sustainability Plan. W&C will assist the GWA in the preparation and submittal of GWA's response to DWR's Comment Letter. The exact level of effort for this component will be based on the intensity of discussion amongst all members of the GWA, the desire of the GWA to accept, acknowledge, or refute the comments, and W&C's technical involvement needed to address those comments, all of which is

unknown at this time. W &C will assist GWA in updating the GSP as necessary, and addressing the deficiencies within 180 days from DWR's determination.

B. The total Not-to-Exceed amount for Task Order No. 5 will be \$90,000.

Recommendation

A. None – Informational only.

Agreement A-20-1
Task Order No. 5
Groundwater Sustainability
Plan Implementation Services

Agreement Number A-20-1, "Agreement for Consulting Services for the implementation of the Eastern Joaquin Subbasin Groundwater Sustainability Plan" (GSP), entered into February 12, 2020 ("Effective Date") by and between the Eastern San Joaquin Groundwater Authority (GWA) and Woodard & Curran, Inc. (W&C), allows for the issuance of Task Orders which identify the specific scope of work, schedule, budget and assigned staff for additional work to be performed under the Agreement. This Task Order No. 5 to Agreement A-20-1 identifies the scope, schedule and budget; and further acts as a Notice to Proceed for a portion of the work described herein. This work is funded by the East San Joaquin Groundwater Authority (GWA)¹.

Task Order No. 5 Scope of Work

This Task Order No. 5 contains the following work components to support continued GSP implementation:

- Component 1: Water Year 2021 Annual Report
- Component 2: Support for the Accounting Framework and Funding Alternatives
- Component 3: Support for GSP Comments

Component 1: Water Year 2021 Annual Report

W&C will prepare and submit an annual report to the Department of Water Resources by April 1, 2022. W&C shall complete the Water Year 2021 Annual Report as specified in **Exhibit A**.

Component 2: Support for Accounting Framework and Funding Alternatives

GWA is in the process of finalizing the water budgets for the Eastern San Joaquin Groundwater Subbasin. These budgets will be used to develop an accounting framework, which will then aid in the preparation of funding/ financing options. The GWA has retained W&C to complete and deliver the baseline water budgets under Task Order No. 4. GWA has also retained another consultant to complete the accounting framework and prepare funding/ financing options. A portion of the latter two activities is going to be facilitated through the Department of Water Resources (Facilitation Support Services Grant).

Additional modeling scenarios, and refinement of water budgets is likely since the development of the accounting framework and funding financing alternatives will require extensive discussion amongst GWA members. Under this component, W&C will provide as-needed modeling, and technical guidance to support the accounting framework and funding alternatives.

Component 3: Support for GSP Comments

DWR has completed their review of the Eastern San Joaquin Subbasin – 2020 Groundwater Sustainability Pla. DWR has identified deficiencies within the GSP, which if not addressed may result in DWR's determination of the GSP as "incomplete." A determination of incomplete allows GWA to formally address identified deficiencies and submit a revised GSP to the Department for further review and evaluation.

¹ Public Works Water Resources Job Number 750236 for staff & consultant costs grant activities that support the ESJGWA GSP implementation.

W&C will assist the GWA in the preparation and submittal of GWA’s response to DWR’s Comment Letter identified in **Exhibit B**. The exact level of effort for this component will be based on the intensity of discussion amongst all members of the GWA, the desire of the GWA to accept, acknowledge, or refute the comments, and W&C’s technical involvement needed to address those comments, all of which is unknown at this time.

W&C will facilitate discussion with the GWA, and will liaise with DWR as needed to develop a draft set of comments for GWA’s consideration and acceptance. A final set of comments will be delivered to GWA and will be submitted to DWR upon GWA’s approval.

Following the GWA’s comments, W&C will assist GWA in updating the GSP as necessary, and addressing the deficiencies within 180 days from DWR’s determination.

BUDGET AND SCHEDULE

Provided below is the estimated fee corresponding to the Components. The combined Not-to-Exceed (NTE) amount for Task Order No. 5 shall be \$90,000.

- Component 1: Water Year 2021 Annual Report (\$40,000)
- Component 2: Support for the Accounting Framework and Funding Alternatives (\$25,000)
- Component 3: Support for GSP Comments (\$25,000)

The Project will begin in December 2021 and is anticipated to run for approximately 7 months, with work to be completed by June 30, 2022. This time frame can be extended in writing if needed, and this Task Order No. 5 shall officially terminate upon completion of the work described herein. The current capacity and summary of task orders and work assigned to date is shown in Table 1.

Table 1- Professional Services (WC A-20-01)	Task Order Amount	A-20-1 Contract NTE
A-20-1 Original (TO 1). 2020 Annual Report, GWA support	\$162,000	\$162,000
TO 2 DMS Implementation, Monitoring Network Expansion & Well Drilling 1 (Engineering)	\$275,000	\$437,000
TO 3 2021 Annual Report	\$49,924	\$486,924
TO 4 Model Develop & Support	\$130,000	\$616,924
TO 5 GSP Implementation Services	\$90,000	\$706,924

Notice to Proceed for the Task Order No. 5 Scope of Work

This serves as the Notice to Proceed for the identified Task Order No. 5 Scope of Work defined herein and Consultant is to commence work no later than December 9, 2021.

Kris Balaji
Secretary
GWA
Date: _____

Ali Taghavi
Senior Vice President
Woodard & Curran, Inc.
Date: _____

APPROVED AS TO FORM:

Rod Attebery, GWA
General Counsel

EXHIBIT A

Via Electronic Mail

October 26, 2021



Glenn Prasad
San Joaquin County
Department of Public Works
1810 East Hazelton Ave
Stockton, CA 95205

Re: Proposal to Prepare WY 2021 Annual Report for the Eastern San Joaquin Groundwater Subbasin

Dear Mr. Prasad:

Woodard & Curran is pleased to present the following proposal for preparing the Water Year (WY) 2021 Annual Report for the Eastern San Joaquin Groundwater Subbasin. Our proposed scope of work for completing the required annual report is as follows.

Water Year 2021 Annual Report

Under Water Code Section 10733.2, DWR was required to draft and adopt emergency regulations for the evaluation and implementation of GSPs. The emergency regulations adopted by the California Water Commission spell out what is required in a GSP, and Article 7 covers Annual Reports and Periodic Evaluations by the Agency and describes the procedural and substantive requirements for the annual reports. Each GSA, or the ESJGWA, is required to submit an annual report to the Department by April 1 of each year following the adoption of the Plan (§ 356.2. Annual Reports). The annual report must include the following components for the preceding water year:

(a) General information, including an executive summary and a location map depicting the basin covered by the report.

(b) A detailed description and graphical representation of the following conditions of the basin managed in the Plan:

(1) Groundwater elevation data from monitoring wells identified in the monitoring network shall be analyzed and displayed as follows:

A. *Groundwater elevation contour maps* for each principal aquifer in the basin illustrating, at a minimum, the seasonal high and seasonal low groundwater conditions.

B. *Hydrographs of groundwater elevations* and water year type using historical data to the greatest extent available, including from January 1, 2015, to current reporting year.

(2) *Groundwater extraction for the preceding water year*. Data shall be collected using the best available measurement methods and shall be presented in a table that summarizes groundwater extractions by water use sector, and identifies the method of measurement (direct or estimate) and accuracy of measurements, and a map that illustrates the general location and volume of groundwater extractions.

(3) *Surface water supply used or available for use, for groundwater recharge or in-lieu use* shall be reported based on quantitative data that describes the annual volume and sources for the preceding water year.



(4) **Total water use** shall be collected using the best available measurement methods and shall be reported in a table that summarizes total water use by water use sector, water source type, and identifies the method of measurement (direct or estimate) and accuracy of measurements. Existing water use data from the most recent Urban Water Management Plans or Agricultural Water Management Plans within the basin may be used, as long as the data are reported by water year.

(5) **Change in groundwater in storage** shall include the following:

(A) Change in groundwater in storage maps for each principal aquifer in the basin.

(B) A graph depicting water year type, groundwater use, the annual change in groundwater in storage, and the cumulative change in groundwater in storage for the basin based on historical data to the greatest extent available, including from January 1, 2015, to the current reporting year.

(c) A **description of progress** towards implementing the Plan, including achieving interim milestones, and implementation of projects or management actions since the previous annual report.

The third annual report for the ESJ Subbasin GSP will be due on April 1, 2022. Per California Code of Regulations §356.2 (SGMA regulations), annual reports must include three key sections: 1) General Information, 2) Basin Conditions, and 3) Plan Implementation Progress. Tasks to complete the Annual Report are detailed below.

Task 1 – Collect, Compile, and Analyze Data

The Basin Conditions section of the annual report will describe the current groundwater conditions and monitoring results, described further in the bullets below. Woodard & Curran will work with the County to develop a list of each necessary dataset, the responsible GSA, and due dates for data. Data will be compiled and reviewed for basic quality control (e.g., duplicate data or flagging data expected to have errors). Groundwater elevation and groundwater quality data will be compiled and imported into the ESJ Subbasin Data Management System (DMS) in Task 2. Additionally, Woodard & Curran will update the historical ESJWRM model to extend the hydrologic period to Water Year 2021 to support the estimation of data for the Annual Report. This is further explained in Task 3.

Data will be analyzed and presented for each data type as follows:

- Groundwater Elevation
 - Woodard & Curran will obtain groundwater elevation data compiled from the County and the GSAs for monitoring Spring and Fall 2021 groundwater levels and develop groundwater elevation contour maps for the principal aquifer that illustrates seasonal high and seasonal low groundwater conditions for WY2021.
 - Hydrographs will also be generated for each representative monitoring well, showing available historical groundwater elevations through WY2021 with reference to water year type.
- Groundwater Extraction
 - The WY2021 historical ESJWRM model will be used to estimate the agricultural groundwater extraction. Groundwater extraction by municipalities will be collected from the GSAs and analyzed by Woodard & Curran for inclusion in the model.



- Surface Water Supply and Use
 - WY2021 surface water diversion data will be collected from the GSAs and analyzed by Woodard & Curran for inclusion in the model. Surface water use data will be estimated consistent with the parameters (e.g., recoverable and non-recoverable losses), as well as delivery areas in the calibrated model.
- Total Water Use
 - Total water use will be estimated using the results from the updated historical model and will include estimated groundwater extraction and surface water use data and summarized by water use sector and water source type. The measurement method and accuracy of measurements will be documented per the source of data, method of analysis using the model, as required by DWR.
- Annual Water Budget and Change in Groundwater Storage
 - The updated historical model (ESJWRM) will be used to establish a water budget for WY2021. The model update will be as described in Task 3.
 - The updated historical model (ESJWRM) will be used to estimate change in groundwater in storage for the principal aquifer. A map will be generated to show the location of change in storage, as well as graphical figures showing year type, groundwater use, the annual change in groundwater in storage, and the historical cumulative change in groundwater in storage from 1995 through WY2021.

Task 2 – Update ESJ Subbasin Data Management System

This task includes time spent making the following updates to the ESJ Subbasin DMS.

- Input data received for Annual Report in template format

Task 3 – Update ESJWRM Model for Annual Report Requirements

Woodard & Curran will update the ESJWRM model through WY2021. Note that this task does not include updating the historical model calibration. The model update includes:

- Extend precipitation data for WY2021
- Extend streamflow data for WY2021
- Update of population record and unit water use for municipalities for WY2021 if available
- Update surface water delivery model input for WY2021 data from agricultural entities and municipalities
- Update groundwater pumping input data for WY2021 data from municipalities

The resulting ESJWRM simulation period will be through WY2021. This updated model will provide the following information:

- Estimates of agricultural water demand for WY2021
- Estimates of urban water demand for WY2021
- Surface water delivery for WY2021
- Estimate of groundwater pumping for WY2021
- Estimate of groundwater storage change from WY2020 to WY 2021



- Simulated groundwater levels in contour map as well as monthly trends in simulated groundwater level at the model calibration wells.

Task 3 Assumptions:

The San Joaquin County will be responsible for coordination with the GSAs for the collection of all required data for WY2021, for input to the model, as follows:

- Surface water diversion data by each agricultural entity
- Surface water diversion data by each municipality
- Groundwater extraction data for each well and for each municipality
- Population records for each municipality
- If data requested does not come in Woodard & Curran will use the latest year information available and will extrapolate with reasonable water year assumptions.

Task 4 – Document Plan Implementation Progress

The Plan Implementation section of the annual report will describe the progress made towards achieving interim milestones as well as implementation of projects and management actions. Woodard & Curran will work with the GSAs to evaluate and report on the progress towards implementing the GSP, including the status of the shortlisted projects and ongoing development of management actions. Shortlisted projects will be summarized in tabular format. Management actions will be summarized in paragraph form.

Task 5 – Prepare Annual Report

The results of Tasks 1 through 4 will be used to develop the WY2021 Annual Report, including an executive summary that highlights the key content of the annual report. The following sections will be included:

1. Executive Summary
2. Introduction
3. Basin Setting
 - a. Groundwater Elevations
 - b. Groundwater Extractions
 - c. Surface Water Supply
 - d. Total Water Use
 - e. Change in Groundwater Storage
4. Plan Implementation Progress
5. References

A Draft Report will be prepared for review by the GSAs. Comments will be incorporated into a Final Report which will be distributed electronically (PDF). Woodard & Curran will also provide the GSAs a copy of the digital files for supporting data, such as Excel spreadsheets and GIS maps/shapefiles.

Deliverable(s):

- Draft and Final Annual Report (PDF form only)

BUDGET AND SCHEDULE



We have provided a scope of services, detailed above, that covers all required activities for completing the WY2021 Annual Report. Based on our experiences preparing last year's (WY2020) Annual Report, we have estimated that it will cost approximately \$50,000. However, with recent updates to the groundwater flow model in support of the allocation framework project and recent improvements to the Subbasin's Data Management System (DMS), it is possible that this effort may cost less. As such, all efforts will be billed monthly on a time and materials basis. We will start work on the Annual Report following receipt of Notice to Proceed (NTP), with the Annual Report completed and submitted to DWR by April 1, 2022.

We greatly appreciate this opportunity to continue supporting San Joaquin County and the GSAs of the Eastern San Joaquin Groundwater Subbasin in their GSP implementation. Please feel free to call me at (916) 999-8700 if you have any questions regarding this proposal or require any further information.

Sincerely,

WOODARD & CURRAN, INC.

A handwritten signature in cursive script that reads "Leslie Dumas".

Leslie Dumas, PE
Project Manager



Fee Estimate

ESJ Groundwater Authority
ESJ Subbasin WY2021 Annual Report

Tasks	Labor								Total Hours	Total Labor Costs (1)	ODCs		Total
	Ali Taghavi	Leslie Dumas	Jeanna Long	Sara Miller	Lindsay Martien	Vanessa De Anda	Emily Honn	Admin.			ODCs	Total ODCs (3)	Total Fee
	PIC	PM	DMS	PE	PE	PE	PE	Graphics and Support Team					
Task 1: WY2021 Annual Report	\$324	\$324	\$298	\$234	\$224	\$198	\$198	\$136					
1.1 Collect, Compile and Analyze Data		4	4	8	4	20	8		48	\$10,800		\$0	\$10,800
1.2 Update ESJ Subbasin Data Management System			8			4			12	\$3,176		\$0	\$3,176
1.3 Update ESJWRM Model for Annual Report Requirments	4			16			40		60	\$12,960		\$0	\$12,960
1.4 Document Plan Implementation Progress		2				4			6	\$1,440		\$0	\$1,440
1.5 Prepare Annual Report	4	24	2	4	4	40	8	4	90	\$21,548		\$0	\$21,548
Subtotal Task 1:	8	30	14	28	8	68	56	4	216	\$49,924	\$0	\$0	\$49,924
TOTAL	8	30	14	28	8	68	56	4	216	\$49,924	\$0	\$0	\$49,924

1. The individual hourly rates include salary, overhead and profit.
2. Subconsultants will be billed at actual cost plus 10%.
3. Other direct costs (ODCs) such as reproduction, delivery, mileage (rates will be those allowed by current IRS guidelines), and travel expenses, will be billed at actual cost plus 10%.
4. RMC reserves the right to adjust its hourly rate structure and ODC markup at the beginning of the calendar year for all ongoing contracts.



CALIFORNIA DEPARTMENT OF WATER RESOURCES

SUSTAINABLE GROUNDWATER MANAGEMENT OFFICE

901 P Street, Room 313-B | Sacramento, CA 95814 | P.O. Box 942836 | Sacramento, CA 94236-0001

EXHIBIT B

November 18, 2021

Kris Balaji, PMP, P.E.
Eastern San Joaquin Subbasin Plan Administrator
1810 E. Hazelton Avenue, Stockton, CA 95201
kbalaji@sjgov.org

RE: Eastern San Joaquin Subbasin - 2020 Groundwater Sustainability Plan

Dear Kris Balaji,

The Eastern San Joaquin Groundwater Authority submitted the Eastern San Joaquin Groundwater Subbasin (Subbasin) Groundwater Sustainability Plan (GSP) to the Department of Water Resources (Department) for evaluation and assessment as required by the Sustainable Groundwater Management Act (SGMA).¹

Department staff have substantially completed an initial review of the GSP and have identified potential deficiencies (see the enclosed document) which may preclude the Department's approval.² Department staff have also developed potential corrective actions³ for each potential deficiency. The potential deficiencies do not necessarily represent all deficiencies or discrepancies that the Department may identify in the GSP but focus on those deficiencies that staff believe, if not addressed, could lead to a determination that the GSP is incomplete or inadequate.⁴ This letter initiates consultation between the Department, the Plan Manager, and the Subbasin's 15 groundwater sustainability agencies (GSAs) regarding the amount of time needed to address the potential deficiencies and corrective actions. The Department will issue a final determination as described under the GSP Regulations⁵ no later than January 29, 2022.

If the Department determines the GSP to be incomplete, the deficiencies precluding approval would need to be addressed within a period not to exceed 180 days from the

¹ Water Code § 10720 et seq.

² 23 CCR § 355.2(e)(2).

³ 23 CCR § 355.2(e)(2)(B).

⁴ The Department recognizes that litigation regarding the GSP has been filed. The filing of litigation does not alter or affect the Department's mandate to issue its final assessment of the Agency's groundwater sustainability plan (GSP or Plan) for the basin within two years of its submission. (Water Code §10733.4(d).) Furthermore, the Department's assessment will consist of a technical review of the submitted Plan, as required by SGMA and the GSP Regulations, and the filing of the litigation did not in any way influence or affect the Department's evaluation of the Plan. The Department expresses no opinion on the claims of the parties in the pending litigation involving the GSP.

⁵ 23 CCR Division 2, Chapter 1.5, Subchapter 2.

determination. A determination of incomplete would allow the GSAs to formally address identified deficiencies and submit a revised GSP to the Department for further review and evaluation. Department staff will contact you before making the final determination to discuss the potential deficiencies and the amount of time needed by the GSAs to address the potential corrective actions detailed in the enclosed document.

Materials submitted to the Department to address deficiencies must be part of the GSP. The GSAs must justify that any materials submitted are part of the revised GSP; this justification is also part of the submittal. To facilitate the Department's review of the revised GSP, the GSAs should also provide a companion document with tracked changes of modifications made to address deficiencies. The GSAs must submit the revised GSP through the DWR SGMA Portal where, as is currently available, interested parties may provide comments on submitted materials to the Department.

Department staff will work expeditiously to review materials submitted to address deficiencies and to evaluate compliance of the revised GSP. The Department will keep a GSP status designated as incomplete during its review of the submitted materials. The Department could subsequently approve an incomplete GSP if the GSAs have taken corrective actions to address deficiencies identified by the Department within a period not to exceed 180 days from the determination. The Department could also issue a determination of inadequate for an incomplete GSP if the Department, after consultation with the State Water Resources Control Board, determines the GSAs have not taken sufficient actions to correct the deficiencies identified by the Department.

If you have any questions, please do not hesitate to contact the Sustainable Groundwater Management Office staff by emailing sgmps@water.ca.gov.

Thank you,

Paul Gosselin

Paul Gosselin
Deputy Director for Sustainable Groundwater Management

Enclosure:

1. Potential Deficiencies and Corrective Actions

2020 Groundwater Sustainability Plan
 Eastern San Joaquin Subbasin (Basin No. 5-022.01)

Potential Deficiencies and Corrective Actions

Department of Water Resources (Department) staff have identified deficiencies regarding the Eastern San Joaquin Subbasin (Subbasin) Groundwater Sustainability Plan (GSP) that may preclude the Department's approval. Therefore, consistent with the GSP Regulations, Department staff are considering corrective actions the Subbasin's groundwater sustainability agencies (GSAs) should review to determine whether and how the deficiencies can be addressed. The deficiencies and potential corrective actions are explained below, including the general regulatory background, the specific deficiencies identified in the GSP, and specific actions to address the deficiencies. The specific actions identified are potential corrective actions until the Department makes a final determination.

General Background

Potential deficiencies identified in the Eastern San Joaquin Subbasin GSP relate to the development and documentation of sustainable management criteria, including undesirable results and minimum thresholds that define when undesirable results may occur.

The Department's GSP Regulations describe several required elements of a GSP under the heading of "Sustainable Management Criteria"⁶, including undesirable results, minimum thresholds, and measurable objectives. These components of sustainable management criteria must be quantified so that GSAs, the Department, and other interested parties can monitor progress towards sustainability in a basin consistently and objectively.

A GSA relies on local experience, public outreach and involvement, and information about the basin it has described in the GSP basin setting (i.e., the hydrogeologic conceptual model, the description of current and historical groundwater conditions, and the water budget), among other factors, to develop criteria for defining undesirable results and setting minimum thresholds and measurable objectives.⁷

The Sustainable Groundwater Management Act (SGMA) defines sustainable groundwater management as the management and use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing undesirable results.⁸ Avoidance of undesirable results is thus explicitly part of sustainable groundwater management as established by SGMA and critical to the success of a GSP.

The definition of undesirable results is critical to establishing an objective method to define and measure sustainability for a basin. As an initial matter, SGMA provides a

⁶ 23 CCR § Article 5, Subarticle 3.

⁷ 23 CCR §§ 354.8, 354.10, 354.12 *et seq.*

⁸ Water Code § 10721(v).

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Eastern San Joaquin Subbasin (Basin No. 5-022.01)

qualitative definition of undesirable results as “one or more” of six specific “effects caused by groundwater conditions occurring throughout the basin.”⁹

GSAs define, in their GSPs, the specific significant and unreasonable effects that would constitute undesirable results and the groundwater conditions that would produce those results in their basins.¹⁰ The GSAs’ definition must include a description of the processes and criteria relied upon to define undesirable results and describe the effect of undesirable results on the beneficial uses and users of groundwater, surface land uses (for subsidence), and surface water (for interconnected surface water).¹¹

SGMA leaves the task of establishing undesirable results and setting thresholds largely to the discretion of the GSAs, subject to review by the Department. In its review, the Department requires a thorough and reasonable analysis of the groundwater conditions and the associated effects the GSAs must manage the groundwater basin to avoid, and the GSAs’ stated rationale for setting objective and quantitative sustainable management criteria to prevent those undesirable conditions from occurring.¹² If a GSP does not meet this requirement, the Department cannot evaluate the GSAs’ likelihood of achieving their sustainability goal. That does not necessarily mean that the GSP or its objectives are inherently unreasonable; rather, the Department cannot evaluate whether the GSP’s implementation would successfully achieve sustainable management if it is unclear what undesirable conditions the GSAs seek to avoid.

Potential Deficiency 1. The GSP lacks sufficient justification for identifying that undesirable results for chronic lowering of groundwater levels, subsidence, and depletion of interconnected surface waters can only occur in consecutive non-dry water year types. The GSP also lacks sufficient explanation for its chronic lowering of groundwater levels minimum thresholds and undesirable results.

The first potential deficiency relates to the GSP’s requirement of two consecutive non-dry (i.e., below normal, above normal, or wet) water-year types and the exclusion of dry and critically dry water-year types in the identification of undesirable results for chronic lowering of groundwater levels, and, by proxy, land subsidence and depletions of interconnected surface water.

Background

Related to this potential deficiency, SGMA defines the term “Undesirable Result,” in part, as one or more of the following effects caused by groundwater conditions occurring throughout the basin:¹³

⁹ Water Code § 10721(x).

¹⁰ California Department of Water Resources, Best Management Practices for the Sustainable Management of Groundwater: Sustainable Management Criteria (Draft), November 2017.

¹¹ 23 CCR §§ 354.26(b), 354.28(c)(5), 354.28(c)(6).

¹² 23 CCR § 355.4(b)(1).

¹³ Water Code § 10721(x).

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Eastern San Joaquin Subbasin (Basin No. 5-022.01)

- Chronic lowering of groundwater levels indicating a significant and unreasonable depletion of supply if continued over the planning and implementation horizon. Overdraft during a period of drought is not sufficient to establish a chronic lowering of groundwater levels if extractions and groundwater recharge are managed as necessary to ensure that reductions in groundwater levels or storage during a period of drought are offset by increases in groundwater levels or storage during other periods.
- Significant and unreasonable land subsidence that substantially interferes with surface land uses.
- Depletions of interconnected surface water that have significant and unreasonable adverse impacts on beneficial uses of the surface water.

Potential Deficiency Details

Department staff identified two areas of concern, described below, which, if not addressed, may preclude approval of the GSP. Regarding the first area of concern, the GSP identifies that an undesirable result occurs “when at least 25 percent of representative monitoring wells used to monitor groundwater levels (5 of 20 wells in the Subbasin) fall below their minimum level thresholds for two consecutive years that are categorized as non-dry years (below-normal, above-normal, or wet), according to the San Joaquin Valley Water Year Hydrologic Classification.” The GSP further states that “the lowering of groundwater levels during consecutive dry or critically-dry years is not considered to be unreasonable, and would therefore not be considered an undesirable result, unless the levels do not rebound to above the thresholds following those consecutive non-dry years.”¹⁴

Department staff find that the water-year type requirement in the definition of the undesirable result for chronic lowering of groundwater levels (i.e., two consecutive non-dry years) is not consistent with the intent of SGMA. The water-year type requirement could potentially allow for unmanaged and continued lowering of groundwater levels under certain hydrologic or climatic conditions that have occurred historically. A review of historical San Joaquin Valley water-year type classifications¹⁵ indicates the potential for dry periods without the occurrence of a second consecutive non-dry year to persist for greater than ten years (see, e.g., the 11 years from water years 1985 through 1995). Department staff also note that concurrent below normal, above normal, or wet years occurred in only five of the last twenty water years from 2001 through 2020. Because of this definition, GSAs in the Subbasin could disregard potential impacts of groundwater level declines below the minimum thresholds during extended periods of dry years, even if interrupted by normal or wet years.

¹⁴ ESJ GSP, p. 253.

¹⁵ Chronological Reconstructed Sacramento and San Joaquin Valley Water Year Hydrologic Classification Indices, Water Year 1901 through 2020. California Department of Water Resources, <https://cdec.water.ca.gov/reportapp/javareports?name=WSIHIST>.

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Department staff also find this methodology inconsistent with other portions of the GSP. For example, while describing measurable objectives for groundwater levels, the GSP states, “the margin of operational flexibility is intended to accommodate droughts, climate change, conjunctive use operations, or other groundwater management activities. The margin of operational flexibility is defined as the difference between the minimum threshold and the measurable objective.”¹⁶ Based on these statements, it appears the minimum thresholds already accommodate drought conditions, so it is unclear why the GSP’s definition of undesirable results further excludes minimum threshold exceedances during dry water years. (See Potential Corrective Action 1a.)

SGMA states that “overdraft during a period of drought is not sufficient to establish a chronic lowering of groundwater levels if extractions and groundwater recharge are managed as necessary to ensure that reductions in groundwater levels or storage during a period of drought are offset by increases in groundwater levels or storage during other periods.”¹⁷ If the GSAs intended to incorporate this concept into their definition of the undesirable result for chronic lowering of groundwater levels, the GSP fails to identify specific extraction and groundwater recharge management actions the GSAs would implement¹⁸ or otherwise describe how the Subbasin would be managed to offset, by increases in groundwater levels or storage during other periods, dry year reductions of groundwater storage. The GSP identifies many projects that, once implemented, may lead to the elimination of long-term overdraft conditions in the Subbasin. However, the GSP does not sufficiently detail how projects and management actions, in conjunction with the proposed chronic lowering of groundwater levels sustainable management criteria, will offset drought-related groundwater reductions and avoid significant and unreasonable impacts when groundwater level minimum thresholds are potentially exceeded for an extended period in the absence of two consecutive non-dry years. (See Potential Corrective Action 1b.)

As noted above, the GSP states that minimum thresholds developed for chronic lowering of groundwater levels serve as proxies for subsidence¹⁹ and depletion of interconnected surface waters.²⁰ Therefore, Department staff assume the GSAs intend to apply the same water-year type criteria to undesirable results for those sustainability indicators (i.e., land subsidence or depletion of interconnected surface water undesirable results do not occur until groundwater levels exceed the thresholds for two consecutive non-dry water years). However, where SGMA acknowledges that groundwater level declines during drought periods are not sufficient to cause an undesirable result for chronic lowering of groundwater levels, the statute does not similarly provide an exception for subsidence or stream depletion during periods of drought. (See Potential Corrective Action 1c.)

¹⁶ ESJ GSP, p. 259.

¹⁷ Water Code § 10721(x)(1).

¹⁸ 23 CCR § 354.44(b)(9).

¹⁹ ESJ GSP, p. 270.

²⁰ ESJ GSP, p. 271.

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Eastern San Joaquin Subbasin (Basin No. 5-022.01)

Department staff's second area of concern is the GSP's evaluation of the effects of the proposed minimum thresholds and undesirable results on beneficial uses and users of groundwater. The GSP identifies that the chronic lowering of groundwater levels could cause undesirable results from wells going dry, reductions in pumping capacities, increased pumping costs, the need for deeper well installations or lowering of pumps, and adverse impacts to environmental uses and users.²¹ The GSP builds an analysis of domestic wells going dry into its minimum thresholds, thereby considering the factors of wells going dry and the need for deeper well installations. However, it does not address how the management criteria address the other factors identified by the GSAs as potential undesirable results, including reductions in pumping capacity or increased pumping costs for shallow groundwater users, or adverse impacts to environmental uses and users.

The GSAs set minimum thresholds in the Subbasin at the shallower of the 10th percentile domestic [or municipal] well depth or the historical low groundwater levels with a subtracted buffer value, which the GSP states allows for operational flexibility.²² These minimum threshold values generally allow groundwater levels to decline below historic lows; minimum thresholds defined using the buffer value approach allow twice the historical drawdown from the shallowest recorded groundwater levels.²³ Aside from the GSP's domestic well analysis, the only description of how minimum thresholds were evaluated to avoid undesirable results appears to be the statements that “for the majority of the Subbasin, GSA representatives identified no undesirable results, even if groundwater were to reach historical low groundwater levels” and that no GSA indicated undesirable results would occur “if the minimum threshold was set deeper than the [historic low] based on their understanding.”²⁴ The GSP provides no further explanation or description of how the individual GSAs concluded that there would be no undesirable results based on the minimum thresholds.

The GSP only considers an undesirable result to occur for groundwater levels in the Subbasin when at least 25 percent of representative monitoring wells (5 of 20 wells) fall below their minimum threshold value for two consecutive non-dry water years.²⁵ The GSP does not justify or discuss how the GSAs developed the 25 percent threshold, nor does it explain or disclose the potential impacts anticipated during extended drier climate conditions using this threshold. In other words, the proposed management program may lead to potential effects on domestic wells or other beneficial uses and users during prolonged dry- or below-normal periods, and that information should, at a minimum, be disclosed and considered in the GSP. (See Potential Corrective Action 1d.)

If, after considering this potential deficiency, the GSAs retain minimum thresholds that allow for continued lowering of groundwater levels, it is reasonable to assume that some

²¹ ESJ GSP, p. 253.

²² ESJ GSP, p. 254.

²³ ESJ GSP, p. 258.

²⁴ ESJ GSP, p. 255.

²⁵ ESJ GSP, p. 253.

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Eastern San Joaquin Subbasin (Basin No. 5-022.01)

groundwater well impacts (e.g., loss of production capacity) will occur during the implementation of the GSP. SGMA requires GSAs to consider the interests of all groundwater uses and users and to implement their GSPs to mitigate overdraft conditions.²⁶ Implementing specific projects and management actions prevents undesirable results and achieves the sustainable yield of the basin. The GSAs should describe how projects and management actions would address drinking water impacts due to continued overdraft between the start of GSP implementation and the achievement of the sustainability goal. If the GSP does not include projects or management actions to address drinking water impacts, the GSP should contain a thorough discussion, with supporting facts and rationale, explaining how and why GSAs determined not to include actions to address those impacts from continued groundwater lowering below pre-SGMA levels. (See Potential Corrective Action 1e.)

Additionally, related to the groundwater level declines allowed for by the GSA's minimum thresholds, the GSAs have not explained how those groundwater level declines relate to the degradation of groundwater quality sustainability indicator. GSAs must describe, among other items, the relationship between minimum thresholds for a given sustainability indicator (in this case, chronic lowering of groundwater levels) and the other sustainability indicators.²⁷ The GSAs generally commit to monitoring a wide range of water quality constituents but they have only developed sustainable management criteria for total dissolved solids because they state they have not observed a causal nexus between groundwater management and degradation associated with the other constituents. While Department staff are not aware of evidence sufficient to conclude that the GSAs acted unreasonably by focusing on total dissolved solids, it is clear that the GSAs did not consider, or at least did not document, the potential for degradation to occur due to further lowering of groundwater levels beyond the historic lows. (See Potential Corrective Action 1f.)

Potential Corrective Action 1

- a) Department staff believe the management approach described in the GSP, which couples minimum thresholds and measurable objectives that account for operational flexibility during dry periods with a definition of undesirable results that disregards minimum threshold exceedances in all years except consecutive below normal, above normal, or wet years, to be inconsistent with the objectives of SGMA. Therefore, the GSAs should remove the water-year type requirement from the GSP's undesirable result definition.
- b) The GSP should be revised to include specific projects and management actions the GSAs would implement to offset drought-year groundwater level declines.
- c) The GSAs should thoroughly explain how their approach avoids undesirable results for subsidence and depletion of interconnected surface waters, as SGMA does not

²⁶ 23 CCR § 355.4(b)(4), 355.4(b)(6).

²⁷ 23 CCR § 354.28(b)(2).

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Eastern San Joaquin Subbasin (Basin No. 5-022.01)

include an allowance or exemption for those conditions to continue in periods of drought.

- d) Removing the water-year type requirement from the definition of an undesirable result (item a, above) would result in a GSP with groundwater level minimum thresholds designed to be generally protective of 90 percent of domestic wells regardless of regional hydrologic conditions. In that scenario, the GSAs should explain the rationale for determining that groundwater levels can exceed those thresholds at 25 percent of monitoring sites for two consecutive years before the effects would be considered significant and unreasonable. The GSAs should also explain how other factors they identified as "potential undesirable results" (e.g., adverse impacts to environmental uses and users) factored into selecting minimum thresholds and describe anticipated effects of the thresholds on beneficial uses and users of groundwater. Furthermore, the GSAs should explain whether other drinking water users that may rely on shallow wells, such as public water systems and state small water systems, were considered in the GSAs' site-specific thresholds. If not, the GSAs should conduct outreach with those users and incorporate their shallow wells, as applicable, into the site-specific minimum thresholds and measurable objectives.
- e) The GSAs should revise the GSP to describe how they would address drinking water impacts caused by continued overdraft during the period between the start of GSP implementation and achieving the sustainability goal. If the GSP does not include projects or management actions to address those impacts, the GSP should contain a thorough discussion, with supporting facts and rationale, explaining how and why the GSAs determined not to include specific actions to address drinking water impacts from continued groundwater lowering below pre-SGMA levels.
- f) The GSP should be revised to explain how the GSAs will assess groundwater quality degradation in areas where further groundwater level decline, below historic lows, is allowed via the minimum thresholds. The GSAs should further describe how they will coordinate with the appropriate groundwater users, including drinking water, environmental, and irrigation users as identified in the GSP. The GSAs should also discuss efforts to coordinate with water quality regulatory agencies and programs in the Subbasin to understand and develop a process for determining if continued lowering of groundwater levels is resulting in degraded water quality in the Subbasin during GSP implementation.

Attachment 1
 Eastern San Joaquin Subbasin (Basin No. 5-022.01)

Potential Deficiency 2. The GSP does not provide enough information to support the use of the chronic lowering of groundwater level sustainable management criteria and representative monitoring network as a proxy for land subsidence.

Background

The GSP Regulations state that minimum thresholds for land subsidence should identify the rate and extent of subsidence that substantially interferes with surface land uses and may lead to undesirable results. These quantitative values should be supported by:²⁸

- The identification of land uses or property interests potentially affected by land subsidence;
- An explanation of how impacts to those land uses or property interests were considered when establishing minimum thresholds;
- Maps or graphs showing the rates and extents of land subsidence defined by the minimum thresholds.

The GSP Regulations allow the use of groundwater elevations as a proxy for land subsidence. However, GSAs must demonstrate a significant correlation between groundwater levels and land subsidence and must demonstrate that groundwater level minimum thresholds represent a reasonable proxy for avoiding land subsidence undesirable results. Additionally, the GSAs must demonstrate how the monitoring network is adequate to identify undesirable results for both metrics.

Potential Deficiency Details

Department staff find that the GSP does not adequately identify or define minimum thresholds and undesirable results for land subsidence. The GSP also does not provide adequate justification and explanation for using the groundwater level minimum thresholds and representative monitoring network as a proxy for land subsidence.

Generally, the GSP identifies that irrecoverable loss of groundwater storage and damage to infrastructure, including water conveyance facilities and flood control facilities, are potential impacts of land subsidence.²⁹ However, the GSP does not identify specific infrastructure locations, particularly those associated with public safety, in the Subbasin and the rate and extent of subsidence that would substantially interfere with those land surface uses and may lead to undesirable results. Additionally, without identifying infrastructure considered at risk for interference from land subsidence, Department staff cannot evaluate whether the groundwater level representative monitoring network is adequate to detect potential subsidence-related impacts.

Department staff find the GSP does not provide adequate evidence to demonstrate a significant correlation between groundwater levels and land subsidence in the Subbasin.

²⁸ 23 CCR § 354.28(c)(5).

²⁹ ESJ GSP, p. 269.

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Eastern San Joaquin Subbasin (Basin No. 5-022.01)

Without explaining this correlation, the Department cannot evaluate whether the groundwater level minimum thresholds and associated conditions required for identifying an undesirable result would protect against significant and unreasonable impacts related to land subsidence. The GSP states a significant correlation exists between groundwater levels and land subsidence, with lowering groundwater levels driving further land subsidence.³⁰ Department staff agree with this general statement. However, the GSP fails to provide adequate evidence to evaluate further this correlation, specifically concerning potential subsidence caused by groundwater levels falling below historic lows, as would be allowed by the groundwater level minimum thresholds set in the GSP.

The GSP's justification for using the proposed groundwater level minimum thresholds as a proxy for land subsidence appears to rely mainly on an incomplete analysis and a data set with significant data gaps. The GSP states there are no historical records of significant and unreasonable land subsidence in the Subbasin.³¹ The GSP also states that there is a lack of direct land subsidence monitoring in the Subbasin.³² The GSP uses this absence of historical records to assert that historically dewatered geologic units are not compressible and, therefore, not at risk for land subsidence. Although groundwater level minimum thresholds are below historic lows, the GSP states that the GSAs do not expect further declines in groundwater levels to dewater materials deeper than 205 feet below ground surface (the deepest groundwater level minimum threshold value in the Subbasin).³³ The GSP states that subsurface materials encountered up to this depth are the same [non-compressible] geologic units that have been historically dewatered.

Department staff find multiple aspects of this justification speculative and not supported by the best available science. First, the GSP presents no analysis of historic groundwater levels or historically dewatered subsurface materials to support the conclusion that the geologic units are not compressible. Second, the GSP does not provide an evaluation showing how additional declines in groundwater levels would only affect subsurface materials similar to those which have been historically dewatered. Third, the GSP is unclear on whether the conditions required to identify an undesirable result for chronic lowering of groundwater levels in the Subbasin are also required to identify an undesirable result for land subsidence. Management proposed in the GSP could allow groundwater level minimum thresholds to be exceeded in periods where two consecutive non-dry years do not occur, which does not support the claim that only materials up to the deepest groundwater level minimum threshold (205 feet below ground surface) will be dewatered.

Department staff note that the legislature intended that implementation of SGMA would avoid or minimize subsidence³⁴ once GSAs achieve the sustainability goal for a basin. Without analysis examining how allowable groundwater levels below those historically

³⁰ ESJ GSP, p. 270.

³¹ ESJ GSP, p. 269.

³² ESJ GSP, p. 270.

³³ ESJ GSP, p. 270.

³⁴ Water Code § 10720.1(e).

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Eastern San Joaquin Subbasin (Basin No. 5-022.01)

experienced in the Subbasin may affect land subsidence, Department staff cannot determine if the GSP adequately avoids or minimizes land subsidence. While SGMA does not require prevention of all land subsidence, the GSP does not provide sufficient evidence to conclude that the proposed chronic lowering of groundwater level minimum thresholds are adequate to detect and avoid land subsidence undesirable results.

Potential Corrective Action 2

The GSAs must provide detailed information to demonstrate how the use of the chronic lowering of groundwater level minimum thresholds are sufficient as a proxy to detect and avoid significant and unreasonable land subsidence that substantially interferes with surface land uses. Alternatively, the GSAs could commit to utilizing direct monitoring for subsidence, e.g., with remotely sensed subsidence data provided by the Department. In that case, the GSAs should develop sustainable management criteria based on rates and extents of subsidence. Department staff suggest the GSAs consider and address the following issues:

1. The GSAs should revise the GSP to identify the total subsidence that critical infrastructure in the Subbasin can tolerate during GSP implementation. Support this identification with information on the effects of subsidence on land surface beneficial uses and users and the amount of subsidence that would substantially interfere with those uses and users.
2. The GSAs should revise the GSP to document a significant correlation between groundwater levels and specific amounts or rates of land subsidence. The analysis should account for potential subsidence related to groundwater level declines below historical lows and further declines that are allowed to exceed minimum thresholds (i.e., during non-consecutive non-dry years, if applicable based on the resolution to Potential Deficiency 1, above). This analysis should demonstrate that groundwater level declines allowed during GSP implementation are preventative of the rates and magnitudes of land subsidence considered significant and unreasonable based on the identified infrastructure of concern. If there is not sufficient data to establish a correlation, the GSAs should consider other options such as direct monitoring of land subsidence (e.g., remotely sensed data provided by the Department, extensometers, or GPS stations) until such time that the GSAs can establish a correlation.
3. The GSAs should explain how the groundwater level representative monitoring network is sufficient to detect significant and unreasonable subsidence that may substantially interfere with land uses, specifically any identified infrastructure of concern. If the groundwater level monitoring network alone is not adequate, based on specific infrastructure locations, Department staff suggest incorporating continued analysis of available InSAR data to cover areas with data gaps.



TECHNICAL ADVISORY COMMITTEE – STAFF REPORT

December 2, 2021

To: TAC, Steering and Board
From: Matt Zidar, Water Resources Manager
RE: Agreement for Professional Services with Davids Engineering, Inc.
Date: December 2, 2021

This memo is intended to provide the Technical Advisory Committee with an update of the procurement of Davids Engineering Inc. for professional services to support the Eastern San Joaquin Groundwater Authority (GWA).

Background

GWA and its 16-member GSAs are tasked with achieving groundwater sustainability in the critically-overdrafted Eastern San Joaquin Subbasin and have been attempting to secure the long-term future of the groundwater basin and meet the requirements of the Sustainable Groundwater Management Act (SGMA). As the GWA continues into the implementation phase of SGMA compliance, it needs to manage groundwater inputs and extractions at the GSA level. As such, the GWA is seeking to establish an accounting framework and accompanying financing plan(s) that will help allocate overdraft and assign costs associated with shared projects designed to address overdraft to individual GSAs.

Discussion

- A. A Request for Qualifications was submitted by the San Joaquin County on behalf of the GWA on September 24, 2021. Two consultants responded by providing their Statement of Qualifications.
- B. On Friday, October 13, 2021 a selection panel comprising Mr. Andrew Watkins, Mr. Matt Zidar, Mr. Walt Ward, Mr. Brandon Nakagawa and Mr. Tom Flinn met to discuss the SOQs. By majority vote this panel selected Davids Engineering, Inc. as the most qualified to perform the needed services.
- C. County staff has been engaging with Davids Engineering since then, by holding numerous scoping discussions, as well as engaging the other team-consultants, including Stantec and Woodard Curran. A final scope of work, and a note-to-exceed amount has been negotiated.
- D. Davids Engineering's scope of work from start to finish is not defined in detail at this time, since it is dependent on the outcome of the interviews and surveys that will be conducted in the coming months. Their work is also based on the water budget discussions, in which the GWA is yet to engage. Therefore, in order to provide some balance and flexibility, DE's scope is divided into three phases as defined below, where each subsequent phase it built upon the outcome of the preceding phase:
 1. Phase 1 – The work in this phase entails facilitation and coordination amongst the GWA members, Stantec team, and Woodard Curran team; analysis of historical water budgets; and analysis of GSP implementation costs.

-
2. Phase 2 – Under this phase, DE will formulate alternative water accounting frameworks and develop alternative basin finance plans
 3. Phase 3 – Under this phase, DE will leverage the findings and conclusions from prior phases to prepare a scope of work/ roadmap that is specifically tailored towards the GWA-specified Water Accounting Framework and finance plan.
- E. DE’s agreement for a Not-to-Exceed amount of \$175,000 will be considered by the GWA Board on December 8, 2021 for approval.
 - F. Following Board’s approval, the Final Agreement will be subject to administrative review by the Board Secretary and GWA Counsel.

Recommendation

- A. TAC and Steering Committee to accept DE’s scope of work and forward to the Board for approval.



AGREEMENT A-21-

Contract Amount \$175,000.00

PARTIES: EASTERN SAN JOAQUIN 1810 E. Hazelton Ave.
GROUND WATER AUTHORITY: Stockton, CA 95205
Matt Zidar
(209) 953-7460
mzidar@sjgov.org

CONSULTANT: Davids Engineering, Inc.
1772 Picasso Avenue, Ste A
Davis, CA 95618
John Davids,
(209) 404-8896
john@davidsengineering.com

This Agreement is made and entered into this _____ day of _____, 2021, by and between Davids Engineering, Inc., a California corporation, (hereinafter “CONSULTANT”), and the Eastern San Joaquin Ground Water Authority, a joint powers agency acting pursuant to Government Code Section 6500 et seq, (hereinafter “GWA”).

NOW, THEREFORE, in consideration of the mutual covenants, conditions, and promises contained herein, it is mutually agreed as follows:

I. THE PURPOSE OF THE AGREEMENT

The purpose of this Agreement is for CONSULTANT to provide various on-call services and support to the GWA for the development of a basin accounting framework and an evaluation of funding and financing alternatives (hereinafter “SERVICES”).

II. ORDER FOR PRECEDENCE

- A. In the event of an inconsistency in this Agreement, the inconsistency shall be resolved by giving precedence in the following order:
1. Applicable Federal and State of California statutes and regulations;
 2. This Agreement;
 3. CONSULTANT'S proposal (hereinafter "PROPOSAL"), attached hereto as **Exhibit A**.

Document 3, referenced above, is hereby incorporated into this Agreement as if completely set forth herein.

III. THE SCOPE OF SERVICES

- A. CONSULTANT agrees to provide various on-call SERVICES outlined in the Proposal attached as **Exhibit A**.
- B. CONSULTANT shall perform the CONSULTANT'S work in accordance with currently approved methods and standards of practice in CONSULTANT'S professional specialty.

C. Specific scope(s) of services to be provided by the CONSULTANT shall be authorized by GWA through the issuance of project-specific Task Orders. Each specific Task Order will require a written scope outlining the specific services to be provided by DE, with a schedule and budget. Cumulative active Task Orders will be subject to the total not-to-exceed amount of the on-call agreement. GWA will authorize each Task Order in writing prior to commencement of services by CONSULTANT.

IV. GENERAL PROVISIONS

A. Term of Agreement:

This Agreement shall commence when fully executed and end on December 31, 2023, unless SERVICES are completed on a date prior thereto or unless terminated earlier as provided herein.

B. Interpretation:

This Agreement shall not be interpreted in favor of any Party by virtue of said Party not having prepared this Agreement.

C. Compensation:

GWA agrees to pay CONSULTANT the hourly amounts as indicated on the CONSULTANT'S hourly rate sheet attached as **Exhibit B**. Notwithstanding the foregoing, the total payments under this Agreement shall not exceed ONE HUNDRED SEVENTY-FIVE THOUSAND DOLLARS AND NO CENTS (**\$175,000.00**).

D. Invoicing:

CONSULTANT shall submit an electronic copy of each invoice to the GWA, PW-Water Resources email address: SJCPWWRinvoices@sjgov.org.

All invoices must reference this Agreement Number/Contract ID # A-21- and the SERVICES performed. Payments shall be made within 30 days of receipt of invoice from CONSULTANT.

LATE FEES: California Government Code 926.10 provides the following "...any person having such a claim against a public agency, shall be entitled to interest commencing the 61st day after such public entity or person files a liquidated claim known or agreed to be valid when filed pursuant to such statute or contract, and such claim is due and payable. Interest shall be 6 percent per annum."

E. CONSULTANT'S Status:

In the performance of SERVICES, duties and obligations imposed by this Agreement, the CONSULTANT and/or its employees and subconsultants are at all times acting as independent contractor(s) practicing his or her profession and not as an employee of GWA. **A copy of the CONSULTANT'S current professional, local, state or other business licenses required to conduct the services stated herein, will be provided to staff of GWA.** CONSULTANT shall not have any claim under this Agreement or otherwise against GWA for vacation, sick leave, retirement benefits, social security or workers' compensation benefits. CONSULTANT shall be responsible for federal and state payroll taxes such as social security and unemployment. GWA will issue a Form 1099 at year-end for fees earned.

F. Assignments:

Inasmuch as this Agreement is intended to secure the specialized services of CONSULTANT, CONSULTANT may not assign, transfer, delegate or subcontract its obligation herein without the prior written consent of GWA. Any such assignment, transfer, delegation, or subcontract without the prior written consent shall be considered null and void.

G. Non-Exclusive Rights:

This Agreement does not grant to CONSULTANT any exclusive privileges or rights to provide services to GWA. GWA may contract with other companies or individuals

for similar services, including but not limited to any other party who may have submitted bids or proposals to any RFQ or other requests from GWA for the work or services performed under this agreement. CONSULTANT may contract with other counties, private companies or individuals for similar services.

H. Indemnification:

CONSULTANT shall, at its expense, indemnify and hold harmless GWA, (defined as the Eastern San Joaquin Ground Water Authority and its employees, officers, directors, contractors and agents) from and against any losses, liabilities, damages, penalties, costs, fees, including without limitation reasonable attorneys' fees, and expenses from any claim or action, including without limitation for bodily injury or death, but only to the proportionate extent resulting from the negligence or willful misconduct of CONSULTANT, its employees, officers, agent or subconsultants. However, nothing in this Agreement shall be interpreted to require CONSULTANT to defend any claim, cause of action, demand, or lawsuit in connection with or arising out of CONSULTANT'S performance of services under this Agreement.

CONSULTANT shall hold the GWA, their officers and employees, harmless from liability, of any nature or kind arising from CONSULTANT'S use of any copyrighted, or un-copyrighted composition, secret process, patented or un-patented invention articles or appliance furnished or used under this Agreement.

I. Insurance:

1. CONSULTANT, shall submit proof of insurance with liability limits as set forth below to GWA, showing GWA, its officers, and employees, named as Additional Insureds to include ongoing operations and products completed operations (On Additional Insured Endorsement CG 20 10 10 93 or its current equivalent), except for Workers' Compensation and Professional Liabilities, and insurance policy shall contain provisions that such policy may not be canceled or reduced except after thirty (30) days written notice to procurement agent of the GWA.

2. CONSULTANT agrees to be responsible to ensure that the requirements set forth in this article/paragraph are also to be met by CONSULTANT'S subconsultants, if any, who provide services pursuant to this Agreement.

3. General Liability Limits

a. BI & PD combined/per occurrence/Aggregate	\$1,000,000
b. Personal Injury/Aggregate	\$1,000,000
c. Automobile Liability/per occurrence	\$1,000,000

1) CONSULTANT agrees to hold harmless and indemnify GWA for any and all liabilities associated with the CONSULTANT'S use of any automobiles in relation to tasks associated with this Agreement.

4. Professional Liability \$1,000,000

a. Professional Liability as appropriately relates to services rendered.
Coverage may include medical malpractice, cyber liability, and/or errors and omissions.

5. Workers' Compensation and Employer's Liability

Statutory requirement as required by any applicable state or federal law or regulation.

J. Discrimination:

CONSULTANT shall not discriminate because of race, color, religion, sex, gender, gender identity, gender expression, sexual orientation, marital status, national origin, ancestry, mental and physical disability, medical condition, genetic information, military or veteran status, age, pregnancy, denial of medical and family care leave, or pregnancydisability leave (California Government Code sections 12940,12945, 12945.2). CONSULTANT shall not retaliate against any person for protesting illegal discrimination related to one of these categories, or for reporting patient abuse in tax supported institutions.

K. ADA Compliance:

CONSULTANT shall comply with the Americans with Disabilities Act (ADA) of 1990, which prohibits discrimination on the basis of disability, as well as all applicableregulations and guidelines issued pursuant to the ADA. (42 U.S.C. Sections 12101 etseq.)

L. Notices:

Any notice required to be given pursuant to the terms and conditions hereof shall be in writing and shall be effected by one of the following methods: personal delivery, prepaid_Certified First-Class Mail, or prepaid Priority Mail with delivery confirmation. Unless otherwise designated in writing by either party, such notice shall be mailed to the addresses shown on page one (1) of this Agreement.

M. Termination:

1. **Termination for Cause:** If CONSULTANT or GWA breaches or habitually neglects its duties under this Agreement without curing such breach or neglect upon fifteen (15) working days written notice, the other party may, by

written notice, immediately terminate this Agreement without prejudice to any other remedy to which it may be entitled, either at law, in equity, or under this Agreement.

2. **Termination for Convenience:** In addition, GWA may terminate this Agreement for its convenience upon thirty (30) days written notice to CONSULTANT.

3. **Funding out Clause:** If the GWA Board of Directors fails to appropriate funds to make purchases under this Agreement, this Agreement will be cancelled immediately and the CONSULTANT will be given written notice of such termination.

4. If this Agreement is terminated under paragraphs 1, 2 or 3 above, CONSULTANT shall only be paid for all SERVICES satisfactorily performed/completed and provided prior to effective date on the notice of termination, including all reasonable termination costs. In the event of termination under paragraph 1, 2 or 3 above, CONSULTANT shall be paid an amount, which bears the same ratio to the total compensation authorized by the Agreement as the services satisfactorily performed bear to the total services of CONSULTANT covered by this Agreement, less payments of compensation previously made as of the effective termination date.

5. Except as stated above and except for any reasonable end-of-contract fees, CONSULTANT shall have no other allowable charges under the terms and conditions of this Agreement.

6. CONSULTANT shall not incur any expenses under this Agreement after the effective date on the notice of termination and shall cancel any outstanding expenses obligations to a third party [related hereto] that CONSULTANT can legally cancel; GWA shall not be liable for any expenses incurred by CONSULTANT subsequent to the notice of termination.

N. Conflict of Interest Statement:

CONSULTANT covenants that CONSULTANT, its officers, employees or their immediate family, presently has no financial or other interest, in other project(s) or contract(s), or other activity(ies), nor shall it acquire any such interest, directly or indirectly, that would conflict or inhibit in any way, manner or degree with the performance of services under this Agreement. CONSULTANT further covenants that in the performance of this Agreement no person having any such a conflict of interest shall be employed or retained by CONSULTANT under this Agreement. CONSULTANT shall not hire GWA to perform any portion of the work or services provided for herein including secretarial, clerical and similar incidental services except upon the written approval of GWA.

O. Drug Free Workplace:

CONSULTANT shall comply with the provisions of California Government Code [Section 8350](#) et seq., otherwise known as the Drug-Free Workplace Act.

P. Force Majeure:

It is agreed that neither party shall be responsible for delays in delivery, acceptance of delivery, or failure to perform when such delay or failure is attributable to Acts of God, war, strikes, riots, lockouts, accidents, rules or regulations of any governmental [agencies or](#) other matters or conditions beyond the control of either CONSULTANT or GWA.

Q. Compliance:

1. CONSULTANT shall comply with all federal, state and local laws, regulations and requirements necessary for the provision of contracted services. Furthermore, CONSULTANT shall comply with all laws applicable to wages and hours of employment, occupational safety, fire safety, health and sanitation. CONSULTANT shall maintain current throughout the life of this Agreement, all permits, licenses, certificates and insurances that are necessary for the provision of contracted services.
2. CONSULTANT shall comply with Assembly Bill 1522, known as the Healthy Workplaces, Healthy Families Act of 2014, codified at California Labor Code [Section 245](#)-249. With a few exceptions, the new law requires all employers to provide employees performing work in California with paid sick leave, beginning on July 1, 2015.

R. Disputes and Remedies:

1. Notice of any disputes, claims, or breach raised by CONSULTANT, arising under this Agreement, must be submitted, in writing, to GWA within ninety (90) days of the alleged dispute, claim, or breach. If such issues cannot be resolved within ninety (90) days following written notice, and if the parties mutually agree, the alleged dispute, claim, or breach may be submitted to arbitration. Arbitration, if expressly agreed upon in writing by GWA and CONSULTANT, shall be pursuant to the provisions of California Code of Civil Procedure Section 1280, et seq.
2. At the GWA's sole discretion, GWA may elect to raise a dispute, claim, or breach by submitting it, in writing, to CONSULTANT. Such dispute, claim, or breach would include conditions and time constraints required of CONSULTANT to remedy.
3. Neither the pendency of a dispute, claim, or breach nor its consideration will excuse the parties from full and timely performance of its undisputed portions of its services in accordance with terms of this Agreement, except that the CONSULTANT reserves the right to suspend performance until all overdue invoices have been paid in full or otherwise settled.

S. Public Record:

All bids and proposal information are property of GWA. All such documents, including this Agreement, are public records per the requirements of the California Government Code, Sections 6250-6270, "California Public Records Act". CONSULTANT'S Proprietary material must be clearly marked as such, but even so marked, it does not guarantee non-disclosure and may still be subject to disclosure pursuant to law. Pricing and service elements of the successful bid and/or proposal may not be considered proprietary information.

- T. GWA will treat all information submitted in a bid/proposal as available for public inspection once the GWA has a contract finalized with the selected consultant. If CONSULTANT believes that it has a legally justifiable basis under the California Public Records Act (Government Section 6250 et. seq.) for protecting the confidentiality of any information contained within its Proposal or this Agreement, it must identify any such information, together with the legal basis of your claim to GWA. CONSULTANT agrees to defend and indemnify GWA for any liability, costs, and expenses incurred in asserting such confidentiality to protect documents from public disclosure. The final determination as to whether GWA will assert your claim of confidentiality on your behalf shall be sole discretion of GWA.

Documents:

All drawings, specifications, documents and other memoranda or writings relating to the work and services hereunder, shall remain or become the property of GWA whether executed by or for CONSULTANT for GWA, or otherwise by or for CONSULTANT, or by or for a subconsultant operating under CONSULTANT'S supervision, or direction, and all such documents and copies thereof shall be returned or transmitted to GWA forthwith upon GWA written demand, termination or completion of the work under this Agreement.

U. Work Product:

GWA and CONSULTANT acknowledge and agree that SERVICES ("Work Product"), and all components of it, provided or developed by CONSULTANT hereunder or in connection herewith shall constitute "works made for hire" within the meaning of Title 17 United States Code Section 101 et seq. (the "Copyright Act"), and all right, title, and interest in and to the Custom Products shall vest in GWA immediately upon development. To the extent any such Custom Products may not be the sole and exclusive property of GWA and/or may not be a "work made for hire" as defined in the Copyright Act upon development, then CONSULTANT agrees to and hereby does sell, transfer, grant and assign to GWA all copyrights, patents, trade secrets, inventions, and other proprietary rights, title, and interest in and to such Custom Products upon development. On all written material, whether in print, electronic, or any media form, constituting "Work Product", CONSULTANT shall place or cause to be placed the following legend preferably in the lower right corner:

2021_ Eastern San Joaquin Ground Water Authority. All rights reserved.

All re-use of, or reliance on, CONSULTANT'S documents outside the intended scope or project shall be at the user's sole risk and without liability to CONSULTANT.

V. Data Security – Confidentiality:

1. ***Acknowledgment of access to information characterized as covered data:*** CONSULTANT acknowledges that this Agreement may allow CONSULTANT access to confidential GWA information or GWA provided information including, but not limited to, personal information, records, data, or financial information ("Covered Data") notwithstanding the manner in which or from whom it is received by CONSULTANT, which is subject to state laws that restrict the use and disclosure of the GWA information, including the California Information Practices Act (California Civil Code Section 1798 et seq.), California Constitution Article 1, Section 1, and other existing relative or future adopted State and/or Federal requirements. CONSULTANT shall maintain the privacy of, and shall not release, Covered Data without full compliance with all applicable state

and federal laws, the provisions of this Agreement and prior written consent of GWA. CONSULTANT agrees that it will include all of the terms and conditions contained in this clause in all subconsultants or agency contracts providing services under this Agreement. Where a federal, state or local law, ordinance, rule or regulation is required to be made applicable to this Agreement, it shall be deemed to be incorporated herein without amendment to this Agreement.

2. ***Prohibition on unauthorized use or disclosure of Covered Data:*** CONSULTANT agrees to hold Covered Data received from or created on behalf of GWA in strictest confidence. CONSULTANT shall not use or disclose Covered Data except as permitted or required by this Agreement or as otherwise authorized in writing by GWA. If required by a court of competent jurisdiction or an administrative body to disclose Covered Data, CONSULTANT will notify GWA in writing prior to any disclosure in order to give GWA an opportunity to oppose any such disclosure. Any work using, or transmission or storage of, Covered Data outside the United States is subject to prior written authorization by GWA.
3. ***Safeguard standard:*** CONSULTANT agrees that it will protect the Covered Data according to commercially acceptable standards and no less rigorously than it protects its own confidential information, but in no case less than reasonable care for a period of one (1) year from the date of disclosure. CONSULTANT shall develop, implement, maintain and use appropriate administrative, technical and physical security measures which may include but not be limited to encryption techniques, to preserve the confidentiality, integrity and availability of all such Covered Data.
4. ***Return or destruction of Covered Data:*** Upon termination, cancellation, expiration or other conclusion of this Agreement, with the exception of one (1) archival copy, CONSULTANT shall return the Covered Data to GWA unless GWA requests that such data be destroyed or if infeasible to do so by CONSULTANT. This provision shall also apply to all Covered Data that is in the possession of subconsultants or agents of CONSULTANT.

CONSULTANT shall complete such return or destruction not less than thirty (30) calendar days after the conclusion or termination of this Agreement, if possible. Within this thirty (30) day period, CONSULTANT shall certify in writing to the GWA that the return or destruction has been completed.

5. ***Reporting of unauthorized disclosures or misuse of Covered Data:*** CONSULTANT shall report, either orally or in writing, to GWA any use or disclosure of Covered Data not authorized by this Agreement or in writing by GWA, including any reasonable belief that an unauthorized

individual has accessed Covered Data. CONSULTANT shall make the report to GWA immediately upon discovery of the unauthorized disclosure, but in no event more than two (2) business days, if possible, after CONSULTANT reasonably believes there has been unauthorized use or disclosure. CONSULTANT'S report shall identify: (i) the nature of the unauthorized use or disclosure, (ii) Covered Data used or disclosed, (iii) who made the unauthorized use or received the unauthorized disclosure, (iv) what CONSULTANT has done or shall do to mitigate any deleterious effect of the unauthorized use or disclosure, and (v) what corrective action CONSULTANT has taken or shall take to prevent future similar unauthorized use or disclosure.

6. ***Examination of records:*** GWA and, if the applicable contract or grant so provides, the other contracting party or grantor (and if that be the United States, or an agency or instrumentality thereof, then the Controller General of the United States) shall have access to and the right to examine any pertinent non-proprietary and project-specific books, documents, papers, and records of CONSULTANT involving transactions and work related to this Agreement until the expiration of five years after final payment hereunder. CONSULTANT shall retain project records for a period of five years from the date of final payment.

7. ***Assistance in litigation or administrative proceedings:*** CONSULTANT shall make itself and any employees, subconsultants, or agents assisting CONSULTANT in the performance of its obligations under this Agreement available to GWA, at GWA's cost, to testify as witnesses, or otherwise, in the event of litigation or administrative proceedings against GWA, its directors, officers, agents or employees based upon a claimed violation of laws relating to security and privacy and arising out of this Agreement.

8. ***No third-party rights:*** Nothing in this Agreement is intended to make any person or entity who is not signatory to the Agreement a third-party beneficiary of any right created by this Agreement or by operation of law.

W. Entire Agreement and Modification:

This Agreement and all documents incorporated by reference supersedes all previous Agreements either oral or in writing and constitutes the entire understanding of the parties hereto. No changes, amendments or alterations shall be effective unless in writing and signed by both parties.

X. Waiver of Consequential Damages and Limitation of Liability:

1. Notwithstanding anything else in this Agreement, neither party shall be liable to the other for any special, indirect, liquidated, consequential,

penal, exemplary, or punitive damages.

2. The maximum aggregate liability of either party to the other under this Agreement shall be limited to compensation actually paid to CONSULTANT under this Agreement.

IN WITNESS WHEREOF, GWA and CONSULTANT have executed this Agreement effective on the day and year first written above.

Eastern San Joaquin Groundwater
Authority, a Joint Powers Agency in
California

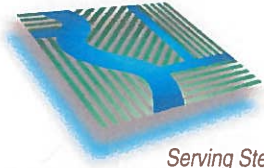
Davids Engineering, Inc.
1772 Picasso Avenue, Ste. A
Davis, CA. 95618

By: _____
Kris Balaji, PMP, PE
Secretary
Eastern San Joaquin GWA

By: _____
John Davids, Senior Engineer
President
Davids Engineering

APPROVED AS TO FORM
Neumiller & Beardslee

By: _____
Rod A. Attebery
GWA Counsel



November 22, 2021

Glenn Prasad
San Joaquin County Public Works
1810 East Hazelton Avenue
Stockton, CA 95205

Sent Electronically

Re: Davids Engineering, Inc. Proposal

Dear Mr. Prasad,

Please consider this proposal for Davids Engineering, Inc. (DE) to provide professional engineering and financial services to support the Eastern San Joaquin Groundwater Authority (GWA).

Work performed under an on-call services agreement, is thought to include, but is not limited to the following:

- Coordination, Outreach, and Project Management
- Analysis of Historical GSA Budgets (if requested)
- Analysis of Basin Groundwater Sustainability Plan (GSP) Implementation costs
- Development of cash flow models for projects that are in the GSP, or other project(s) that may be added to the analysis, as requested.
- Development of principles of cost allocation
- Development of alternative water accounting frameworks
- Attendance, representation, and coordination with external agencies and stakeholders
- Development of Basin Water Accounting Framework
- Evaluation of Funding and Financing Alternatives
- Other duties as assigned

Professional services will be provided on a Time & Materials (T&M) based on the schedule of billing rates attached to this proposal.

We understand that specific scope(s) of services provided by DE shall be authorized by the GWA's Project Manager through the issuance and approval of Task Orders. Each Task Order will require a written scope with specific services to be provided by DE, with a schedule and budget. Cumulative active Task Orders will be subject to the total not-to-exceed amount of the

on-call agreement. The GWA's Project Manager will authorize each Task Order in writing prior to commencement of services by DE.

If you have any questions or need any additional information, please do not hesitate to contact me at (209) 404-8896.

Sincerely,

A handwritten signature in blue ink, consisting of several overlapping loops and lines, positioned below the word "Sincerely,".

John B. Davids, P.E.
Principal Engineer

Enclosure: DE Schedule of Rates

cc: Project Files

Table 1

Davids Engineering, Inc. Labor Rates Effective January 1, 2021	
Labor Classification	Hourly Rate
Sr. Principal Engineer	\$232
Principal Engineer	\$220
Supervising Engineer/Scientist	\$201
Senior Engineer/Scientist	\$184
Associate Engineer/Scientist II	\$175
Associate Engineer/Scientist I	\$165
Staff Engineer/Scientist II	\$155
Staff Engineer/Scientist I	\$142
Graduate Engineer/Scientist	\$122
Engineering Intern II	\$68
Engineering Intern I	\$46
Administrative Intern	\$47
Student Intern	\$26
Technical/Project Assistant	\$102
Secretary/Clerical II	\$95
Secretary/Clerical I	\$82

Note: labor rates are subject to revision at the beginning of each calendar year.

Table 2

Davids Engineering, Inc. Vehicle and Equipment Rates Effective January 1, 2021	
Item	Rate
Automobiles	current federal rate
Field vehicle (4 x 4)	\$1.00/mile
SonTek RiverSurveyor M9 ADCP	\$285.00/day
SonTek FlowTracker Handheld ADVN	\$60.00/day
Fuji Electric Portaflow-C Transit Time Meter	\$105.00/day
Pressure Transducer	\$50.00/month
SCADA Equipment and Materials	at cost
Color plotter	\$7.00/sq. ft.

Note: equipment rates are subject to revision at the beginning of each calendar year.

-
2. Phase 2 – Under this phase, DE will formulate alternative water accounting frameworks and develop alternative basin finance plans
 3. Phase 3 – Under this phase, DE will leverage the findings and conclusions from prior phases to prepare a scope of work/ roadmap that is specifically tailored towards the GWA-specified Water Accounting Framework and finance plan.
- E. DE’s agreement for a Not-to-Exceed amount of \$175,000 will be considered by the GWA Board on December 8, 2021 for approval.

Recommendation

- A. TAC to accept DE’s scope of work and forward to the Board for approval.



ESJ GWA STEERING COMMITTEE – STAFF REPORT

December 8, 2021

To: ESJ GWA Steering Committee
From: Matt Zidar, Water Resources Manager
RE: Amendments to the Fiscal Year 2021-22 ESJ GWA Budget
Date: December 8, 2021

This memo is intended to provide the GWA Steering Committee with details surrounding the need to Amend Fiscal Year 2021-22 GWA Budget.

Background

The GWA Board of Directors adopted the Fiscal Year 2021-2022 budget (R-21-02) (**Exhibit A**) June 9, 2021 which authorized the GWA’s total spending authority of \$1,077,800. After the budget was adopted, a clerical error was found.

Discussion

To correct the clerical error, an appropriation increase of \$100,000 to the total “Reserve-dedication of carry over” line-item is necessary. The effect of the forementioned increased appropriation will increase the GWA’s total expenses to \$1,177,800 and reduce carry-over reserves. **See (Exhibit B).**

The following paragraphs and tables outline proposed 2021-2022 budget allocation adjustments to add a fifth task order to Agreement A-20-1 and to establish appropriations for consultant activities regarding development of a basin water accounting framework and an evaluation of funding and financing alternatives.

1. Addition of Task Order No. 5 to Agreement A-20-1 (*Woodard and Curran*):

- Components 1 and 3 of Task Order No. 5 were allocated \$90,000 in total appropriations in the adopted FY 21-22 budget.
- Woodard and Curran’s current cost proposal for components 1 and 3 is \$65,000, and the inclusion of Component 2 is \$25,000.
- No increase in appropriation is necessary to fund the addition of Task Order No. 5 to A-20-1.

The three components to Task Order No. 5 and the associated costs are illustrated in the following table:

Component	Function	Cost	Budget allocation change
1	Preparation of 2021 Annual Report	\$40,000	No Change
2	Support to the development of a Basin Accounting Framework and Funding/Financing Alternatives	\$25,000	Component 2 is located in; line-item “Funding and Financing”
3	Response to DWR GSP Comments	\$25,000	Reduce allocation from \$50k to 25K; transfer \$25K to line-item “Funding and Financing”
Total		\$90,000	No new appropriation needed

2. Development of a basin accounting framework and an evaluation of funding and financing alternatives (Davids Engineering):

- A RFQ was issued by the GWA and resulted in the selection of Davids Engineering, Inc. for this project.
- The adopted FY 21-22 budget allocated \$75,000 to line-item “Funding and Financing” for this project.
- Davids Engineering’s proposal identified their fee to be \$175,000.
- A \$100,000 reduction in line-item “Reserve Cost” and transferred to line-item “Funding and Financing” is recommended to fund Agreement.
- No increase in appropriation is necessary to fund Agreement with David’s Engineering.

A. The following table highlights proposed changes in line-item allocations to fund contract with Davids Engineering:

Line-Item	Adopted Allocation	Proposed Increase/(Decrease)	“Funding & Financing” Line-Item addition
Reserve Cost	\$200,000	(\$100,000)	\$100,000
Funding & Financing	\$75,000	0	\$75,000
Total			\$175,000

B. The following table highlights proposed changes in line-item allocations as a result of changes in tables A & B above.

Line-Item	Adopted Allocation	Proposed Incr/(Decr)	Transferred to Line-Item	Adjusted Total
Response to DWR Review	\$50,000	(\$25,000)	B.A F & Funding & Financing	\$25,000
Reserve Cost	\$200,000	(\$100,000)	B.A F & Funding & Financing	\$100,000
B.A F & Funding & Financing	\$82,500	(\$125,000)	-	\$207,500
FY 21/22 Reserve Contribution	\$200,000	(\$100,000)		\$100,000
Estimated Carry over balance to Reserves	\$370,000	(\$100,000)		\$270,000

Recommendation

Approve the proposed Amendment to the Fiscal Year 2021-2022 Budget (**Exhibit B**).

**Eastern San Joaquin Groundwater Authority
Fund 21451
2021-2022 Budget**

**EXHIBIT A
R-21-02**

Minimal Activity

Revenue

Interest Income	
GWA GSAs Cost Allocation	
Other Govt Aid From Zone 2	
State (DWR) Sustainable GW Grant	
P68 Implementation Grant	
Rebates & Refunds	
Carry Over (use of fund balance)	
Allocated from FY 20/21 Reserve	
TOTAL REVENUES	

FY 21-22	6221100802	Total
Contract /ODC	Staff	
		\$ -
\$ 325,000		\$ 325,000
\$ 225,000		\$ 225,000
\$ 175,000		\$ 175,000
\$ 225,000		\$ 225,000
		\$ -
\$ 100,000		\$ 100,000
\$ 130,000		\$ 130,000
\$ 1,180,000		\$ 1,180,000

Expense

General Office Supplies	
Office Expense	
Office Supplies-Purch-ISF	
Website Maintenance	
Advertising	
Rents Structures & Grounds	
Small Tools & Instruments	
Postage	
Auditor's Payroll & A/P Charges	
Professional Services PW Admin	
Professional Services Public Outreach	
Professional Services GWA Support/Coordination	
Special Studies & Reports	
WaterSMART Applied Science 2021	
Response to DWR Review	
2022 Annual Report	
Project Development: FIRO/FloodMAR/GRAT	
Grants and Matching Fund Support	
Prof Services Prop 1 Grant (A-18-01)	
Professional Services (WC A-18-01) Shallow Wells	
Professional Services (WC A-20-01)	
A-20-1 Original (TO1). 2020 Annual Report& Support	
(P 68, TO2) DMS Implementation	
(P 68, TO2) Monitoring Network Expansion Engineering	
(P68, No TO) Monitoring Network Expansion Drilling	
TO 3. 2021 Annual Report	
TO 4 Model Devel & Support	
Professional Services P68 Grant	
(P68, No TO) Funding and Financing (P68 Impl Grant) (No TO)	
County Counsel Legal Services	
Professional Services Counsel	
Reserve- dedication of carry over	
Reserve Costs (\$50K model, \$150K GSP update)	
TOTAL EXPENSES	

\$ 500		\$ 500
\$ 500		\$ 500
		\$ -
\$ 5,000		\$ 5,000
		\$ -
\$ 4,800		\$ 4,800
		\$ -
\$ 1,000		\$ 1,000
\$ 1,000		\$ 1,000
	\$ 15,000	\$ 15,000
\$ 15,000	\$ 15,000	\$ 30,000
	\$ 25,000	\$ 25,000
		\$ -
\$ 12,500	\$ 7,500	\$ 20,000
\$ 50,000	\$ 15,000	\$ 65,000
\$ 40,000	\$ 7,500	\$ 47,500
	\$ 7,500	\$ 7,500
\$ -	\$ 10,000	\$ 10,000
		\$ -
\$ 175,000		\$ 175,000
		\$ -
		\$ -
	\$ 20,000	\$ 20,000
	\$ 7,500	\$ 7,500
\$ 175,000	\$ 10,000	\$ 185,000
		\$ -
\$ 130,000		\$ 130,000
		\$ -
\$ 75,000	\$ 7,500	\$ 82,500
\$ 5,000		\$ 5,000
\$ 40,000		\$ 40,000
\$ 100,000		\$ 100,000
\$ 200,000		\$ 200,000
\$ 1,030,300	\$ 147,500	\$ 1,077,800

Reserve 20/21	
FY 20/21, Allocated to TO4 model	
Reserve Balance at end of 2021	
FY 21/22 Reserve Contribution	
Estimated Carry over bal to Reserve	

		Reserve Balance FY 21/22
	\$ 200,000	
	\$ 130,000	
	\$ 70,000	
	\$ 200,000	\$ 270,000
	\$ 100,000	\$ 370,000

**EXHIBIT B
R-21-**

**Eastern San Joaquin Groundwater Authority
Fund 21451
2021-2022 Amended Budget**

Adopted (R-21-02)

	FY 21-22		6221100802	Total
	Contract /ODC	Staff		
Revenue				
GWA GSAs Cost Allocation	\$ 325,000			\$ 325,000
Other Govt Aid From Zone 2	\$ 225,000			\$ 225,000
State (DWR) Sustainable GW Grant (Well)	\$ 175,000			\$ 175,000
P68 Implementation Grant (WAF & FF)	\$ 225,000			\$ 225,000
Carry Over (use of fund balance)	\$ 100,000			\$ 100,000
Allocated from FY 20/21 Reserve	\$ 130,000			\$ 130,000
TOTAL REVENUES	\$ 1,180,000			\$ 1,180,000
Expense				
General Office Supplies	\$ 500			\$ 500
Office Expense	\$ 500			\$ 500
Website Maintenance	\$ 5,000			\$ 5,000
Rents Structures & Grounds	\$ 4,800			\$ 4,800
Postage	\$ 1,000			\$ 1,000
Auditor's Payroll & A/P Charges	\$ 1,000			\$ 1,000
Professional Services PW Admin		\$ 15,000		\$ 15,000
Professional Services Public Outreach	\$ 15,000	\$ 15,000		\$ 30,000
Professional Services GWA Support/Coordination		\$ 25,000		\$ 25,000
Special Studies & Reports				\$ -
WaterSMART Applied Science 2021	\$ 12,500	\$ 7,500		\$ 20,000
Response to DWR Review (WC TO 5)	\$ 50,000	\$ 15,000		\$ 65,000
2022 Annual Report (WC TO 5)	\$ 40,000	\$ 7,500		\$ 47,500
Project Development: FIRO/FloodMAR/GRAT		\$ 7,500		\$ 7,500
Grants and Matching Fund Support	\$ -	\$ 10,000		\$ 10,000
Professional Services (WC A-18-01) Shallow Wells	\$ 175,000			\$ 175,000
(P 68, TO2) DMS Implementation		\$ 20,000		\$ 20,000
(P 68, TO2) Monitoring Network Expansion Engineering		\$ 7,500		\$ 7,500
(P68, No TO) Monitoring Network Expansion Drilling	\$ 175,000	\$ 10,000		\$ 185,000
TO 4 Model Devel & Support	\$ 130,000			\$ 130,000
Basin Accounting Framework & Funding and Financing (P68 Impl Grant) (David's 175K Agreement& WC TO 5 - \$25K)	\$ 75,000	\$ 7,500		\$ 82,500
County Counsel Legal Services	\$ 5,000			\$ 5,000
Professional Services Counsel	\$ 40,000			\$ 40,000
Reserve- dedication of carry over	\$ 100,000			\$ 100,000
Reserve Costs (\$50K model, \$150K GSP update)	\$ 200,000			\$ 200,000
TOTAL EXPENSES	\$ 1,030,300	\$ 147,500		\$ 1,077,800
			Reserve Balance FY 21/22	
Reserve 20/21		\$200,000		
FY 20/21, Allocated to TO4 model		\$130,000		
Reserve Balance at end of 2021		\$ 70,000		
FY 21/22 Reserve Contribution		\$200,000	\$ 270,000	
Estimated Carry over bal to Reserve		\$100,000	\$ 370,000	

Proposed (Amended)

	FY 21-22		6221100802	Total
	Contract /ODC	Staff		
Revenue				
GWA GSAs Cost Allocation	\$ 325,000			\$ 325,000
Other Govt Aid From Zone 2	\$ 225,000			\$ 225,000
State (DWR) Sustainable GW Grant (Well)	\$ 175,000			\$ 175,000
P68 Implementation Grant (WAF & FF)	\$ 225,000			\$ 225,000
Carry Over (use of fund balance)	\$ 100,000			\$ 100,000
Allocated from FY 20/21 Reserve	\$ 130,000			\$ 130,000
TOTAL REVENUES	\$ 1,180,000			\$ 1,180,000
Expense				
General Office Supplies	\$ 500			\$ 500
Office Expense	\$ 500			\$ 500
Website Maintenance	\$ 5,000			\$ 5,000
Rents Structures & Grounds	\$ 4,800			\$ 4,800
Postage	\$ 1,000			\$ 1,000
Auditor's Payroll & A/P Charges	\$ 1,000			\$ 1,000
Professional Services PW Admin		\$ 15,000		\$ 15,000
Professional Services Public Outreach	\$ 15,000	\$ 15,000		\$ 30,000
Professional Services GWA Support/Coordination		\$ 25,000		\$ 25,000
Special Studies & Reports				\$ -
WaterSMART Applied Science 2021	\$ 12,500	\$ 7,500		\$ 20,000
Response to DWR Review (WC TO 5)	\$ 25,000	\$ 15,000		\$ 40,000
2022 Annual Report (WC TO 5)	\$ 40,000	\$ 7,500		\$ 47,500
Project Development: FIRO/FloodMAR/GRAT		\$ 7,500		\$ 7,500
Grants and Matching Fund Support	\$ -	\$ 10,000		\$ 10,000
Professional Services (WC A-18-01) Shallow Wells	\$ 175,000			\$ 175,000
(P 68, TO2) DMS Implementation		\$ 20,000		\$ 20,000
(P 68, TO2) Monitoring Network Expansion Engineering		\$ 7,500		\$ 7,500
(P68, No TO) Monitoring Network Expansion Drilling	\$ 175,000	\$ 10,000		\$ 185,000
TO 4 Model Devel & Support	\$ 130,000			\$ 130,000
Basin Accounting Framework & Funding and Financing (P68 Impl Grant) (David's 175K Agreement& WC TO 5 - \$25K)	\$ 200,000	\$ 7,500		\$ 207,500
County Counsel Legal Services	\$ 5,000			\$ 5,000
Professional Services Counsel	\$ 40,000			\$ 40,000
Reserve- dedication of carry over	\$ 100,000			\$ 100,000
Reserve Costs (\$50K model, \$150K GSP update)	\$ 100,000			\$ 100,000
TOTAL EXPENSES	\$ 1,030,300	\$ 147,500		\$ 1,177,800
			Reserve Balance FY 21/22	
Reserve 20/21	\$200,000			
FY 20/21, Allocated to TO4 model	\$130,000			
Reserve Balance at end of 2021	\$ 70,000			
FY 21/22 Reserve Contribution	\$100,000	\$ 170,000		
Estimated Carry over bal to Reserve	\$100,000	\$ 270,000		

* = Appropriation Adjustment
** = Allocation Adjustment

**BEFORE THE BOARD OF DIRECTORS OF
THE EASTERN SAN JOAQUIN
GROUNDWATER AUTHORITY**

RESOLUTION R-21-

RESOLUTION AMENDING THE 2021-2022 BUDGET

WHEREAS, the Eastern San Joaquin Groundwater Authority (GWA) is a Joint Powers Agency (JPA) created pursuant to California statute, and which is a public entity separate and apart from the Members; and

WHEREAS, Section 5.1 and Section 5.5 of the JPA Agreement provides that the GWA Board of Directors shall adopt a budget for the GWA for each fiscal year; and

WHEREAS, on June 9, 2021, the GWA Board of Directors adopted the 2021-2022 budget (R-21-02) which included appropriations totaling \$1,077,800 (**Exhibit A**); and

WHEREAS, it was discovered after the 2021-2022 budget was adopted that a clerical error resulted in the omission of \$100,000 from the total appropriations; and

WHEREAS, an amendment to the 2021-2022 budget (**Exhibit B**) is required to increase appropriations from \$1,077,800 to \$1,177,800 and correspondingly decrease the carryover to reserves; and

WHEREAS, a budget adjustment is recommended to reallocate appropriations to add a fifth task order to Agreement A-20-1 not identified in the 2021-2022 budget and to establish appropriations for consultant activities regarding development of a basin water accounting framework and an evaluation of funding and financing alternatives (**Exhibit C**); and

WHEREAS, on December 8, 2021 the GWA Steering Committee was presented with and concurred on the addition of Task Order five (5) to Agreement A-20-1 by and between the GWA and Woodard & Curran and accepting the proposed Agreement A-21- by and between the GWA and Davids Engineering for the development of a basin water accounting framework and an evaluation of funding and financing alternatives; and

WHEREAS, the Secretary of the GWA, is authorized by GWA Resolution R-21-03 to approve expenditures and execute contracts within the designations and limitations of the approved ESJGWA budget that are made in consultation and with concurrence of the Steering Committee.

NOW, THEREFORE, BE IT RESOLVED:

The GWA Board of Directors hereby approves additional appropriations in the amount of \$100,000 and a corresponding reduction in dedicated carryover to reserves by amending its 2021-2022 budget (**Exhibit B**) and

BE IT FURTHER RESOLVED: The appropriations are hereby reallocated as identified in Exhibit C:

BE IT FURTHER RESOLVED: This amended budget is not intended to create any precedent or reflect an allocation or determination of water rights. The budget is subject to revision for the next fiscal year.

PASSED AND ADOPTED this 8th day of December 2021, by the following vote of the Board of Directors of the Eastern San Joaquin Groundwater Authority, to wit:

AYES:

NOES:

ABSENT

ATTEST: KRIS BALAJI, PMP, P.E.
Secretary of the
Eastern San Joaquin
Groundwater Authority

CHUCK WINN, Chairman
Board of Directors of the
Eastern San Joaquin
Groundwater Authority

**Eastern San Joaquin Groundwater Authority
Fund 21451
2021-2022 Budget**

**EXHIBIT A
R-21-02**

Minimal Activity

Revenue

Interest Income	
GWA GSAs Cost Allocation	
Other Govt Aid From Zone 2	
State (DWR) Sustainable GW Grant	
P68 Implementation Grant	
Rebates & Refunds	
Carry Over (use of fund balance)	
Allocated from FY 20/21 Reserve	
TOTAL REVENUES	

FY 21-22	6221100802	
Contract /ODC	Staff	Total
		\$ -
\$ 325,000		\$ 325,000
\$ 225,000		\$ 225,000
\$ 175,000		\$ 175,000
\$ 225,000		\$ 225,000
		\$ -
\$ 100,000		\$ 100,000
\$ 130,000		\$ 130,000
\$ 1,180,000		\$ 1,180,000

Expense

General Office Supplies	
Office Expense	
Office Supplies-Purch-ISF	
Website Maintenance	
Advertising	
Rents Structures & Grounds	
Small Tools & Instruments	
Postage	
Auditor's Payroll & A/P Charges	
Professional Services PW Admin	
Professional Services Public Outreach	
Professional Services GWA Support/Coordination	
Special Studies & Reports	
WaterSMART Applied Science 2021	
Response to DWR Review	
2022 Annual Report	
Project Development: FIRO/FloodMAR/GRAT	
Grants and Matching Fund Support	
Prof Services Prop 1 Grant (A-18-01)	
Professional Services (WC A-18-01) Shallow Wells	
Professional Services (WC A-20-01)	
A-20-1 Original (TO1). 2020 Annual Report& Support	
(P 68, TO2) DMS Implementation	
(P 68, TO2) Monitoring Network Expansion Engineering	
(P68, No TO) Monitoring Network Expansion Drilling	
TO 3. 2021 Annual Report	
TO 4 Model Devel & Support	
Professional Services P68 Grant	
(P68, No TO) Funding and Financing (P68 Impl Grant) (No TO)	
County Counsel Legal Services	
Professional Services Counsel	
Reserve- dedication of carry over	
Reserve Costs (\$50K model, \$150K GSP update)	
TOTAL EXPENSES	

\$ 500		\$ 500
\$ 500		\$ 500
		\$ -
\$ 5,000		\$ 5,000
		\$ -
\$ 4,800		\$ 4,800
		\$ -
\$ 1,000		\$ 1,000
\$ 1,000		\$ 1,000
	\$ 15,000	\$ 15,000
\$ 15,000	\$ 15,000	\$ 30,000
	\$ 25,000	\$ 25,000
		\$ -
\$ 12,500	\$ 7,500	\$ 20,000
\$ 50,000	\$ 15,000	\$ 65,000
\$ 40,000	\$ 7,500	\$ 47,500
	\$ 7,500	\$ 7,500
\$ -	\$ 10,000	\$ 10,000
		\$ -
\$ 175,000		\$ 175,000
		\$ -
		\$ -
	\$ 20,000	\$ 20,000
	\$ 7,500	\$ 7,500
\$ 175,000	\$ 10,000	\$ 185,000
		\$ -
\$ 130,000		\$ 130,000
		\$ -
\$ 75,000	\$ 7,500	\$ 82,500
\$ 5,000		\$ 5,000
\$ 40,000		\$ 40,000
\$ 100,000		\$ 100,000
\$ 200,000		\$ 200,000
\$ 1,030,300	\$ 147,500	\$ 1,077,800

Reserve 20/21	
FY 20/21, Allocated to TO4 model	
Reserve Balance at end of 2021	
FY 21/22 Reserve Contribution	
Estimated Carry over bal to Reserve	

		Reserve Balance FY 21/22
	\$ 200,000	
	\$ 130,000	
	\$ 70,000	
	\$ 200,000	\$ 270,000
	\$ 100,000	\$ 370,000

EXHIBIT B

R-21-

**Eastern San Joaquin Groundwater
Authority Fund 21451
2021-2022 Amended Budget**

Adopted (R-21-02)

Proposed (Amended)

Revenue	FY 21-22	6221100802	Total
	Contract /ODC	Staff	
GWA GSAs Cost Allocation	\$ 325,000		\$ 325,000
Other Govt Aid From Zone 2	\$ 225,000		\$ 225,000
State (DWR) Sustainable GW Grant (Well)	\$ 175,000		\$ 175,000
P68 Implementation Grant (WAF & FF)	\$ 225,000		\$ 225,000
Carry Over (use of fund balance)	\$ 100,000		\$ 100,000
Allocated from FY 20/21 Reserve	\$ 130,000		\$ 130,000
TOTAL REVENUES	\$ 1,180,000		\$ 1,180,000
Expense			
General Office Supplies	\$ 500		\$ 500
Office Expense	\$ 500		\$ 500
Website Maintenance	\$ 5,000		\$ 5,000
Rents Structures & Grounds	\$ 4,800		\$ 4,800
Postage	\$ 1,000		\$ 1,000
Auditor's Payroll & A/P Charges	\$ 1,000		\$ 1,000
Professional Services PW Admin		\$ 15,000	\$ 15,000
Professional Services Public Outreach	\$ 15,000	\$ 15,000	\$ 30,000
Professional Services GWA Support/Coordination		\$ 25,000	\$ 25,000
Special Studies & Reports			\$ -
WaterSMART Applied Science 2021	\$ 12,500	\$ 7,500	\$ 20,000
Response to DWR Review (WC TO 5)	\$ 50,000	\$ 15,000	\$ 65,000
2022 Annual Report (WC TO 5)	\$ 40,000	\$ 7,500	\$ 47,500
Project Development: FIRO/FloodMAR/GRAT		\$ 7,500	\$ 7,500
Grants and Matching Fund Support	\$ -	\$ 10,000	\$ 10,000
Professional Services (WC A-18-01) Shallow Wells	\$ 175,000		\$ 175,000
(P 68, TO2) DMS Implementation		\$ 20,000	\$ 20,000
(P 68, TO2) Monitoring Network Expansion Engineering		\$ 7,500	\$ 7,500
(P68, No TO) Monitoring Network Expansion Drilling	\$ 175,000	\$ 10,000	\$ 185,000
TO 4 Model Devel & Support	\$ 130,000		\$ 130,000
Basin Accounting Framework & Funding and Financing (P68 Impl Grant) (David's 175K Agreement& WC TO 5 - \$25K)	\$ 75,000	\$ 7,500	\$ 82,500
County Counsel Legal Services	\$ 5,000		\$ 5,000
Professional Services Counsel	\$ 40,000		\$ 40,000
Reserve- dedication of carry over	\$ 100,000		\$ 100,000
Reserve Costs (\$50K model, \$150K GSP update)	\$ 200,000		\$ 200,000
TOTAL EXPENSES	\$ 1,030,300	\$ 147,500	\$ 1,077,800
			Reserve Balance FY 21/22
Reserve 20/21		\$200,000	
FY 20/21, Allocated to TO4 model		\$130,000	
Reserve Balance at end of 2021		\$ 70,000	
FY 21/22 Reserve Contribution		\$200,000	\$ 270,000
Estimated Carry over bal to Reserve		\$100,000	\$ 370,000

Revenue	FY 21-22	6221100802	Total
	Contract /ODC	Staff	
GWA GSAs Cost Allocation	\$ 325,000		\$ 325,000
Other Govt Aid From Zone 2	\$ 225,000		\$ 225,000
State (DWR) Sustainable GW Grant (Well)	\$ 175,000		\$ 175,000
P68 Implementation Grant (WAF & FF)	\$ 225,000		\$ 225,000
Carry Over (use of fund balance)	\$ 100,000		\$ 100,000
Allocated from FY 20/21 Reserve	\$ 130,000		\$ 130,000
TOTAL REVENUES	\$ 1,180,000		\$ 1,180,000
Expense			
General Office Supplies	\$ 500		\$ 500
Office Expense	\$ 500		\$ 500
Website Maintenance	\$ 5,000		\$ 5,000
Rents Structures & Grounds	\$ 4,800		\$ 4,800
Postage	\$ 1,000		\$ 1,000
Auditor's Payroll & A/P Charges	\$ 1,000		\$ 1,000
Professional Services PW Admin		\$ 15,000	\$ 15,000
Professional Services Public Outreach	\$ 15,000	\$ 15,000	\$ 30,000
Professional Services GWA Support/Coordination		\$ 25,000	\$ 25,000
Special Studies & Reports			\$ -
WaterSMART Applied Science 2021	\$ 12,500	\$ 7,500	\$ 20,000
Response to DWR Review (WC TO 5)	\$ 25,000	\$ 15,000	\$ 40,000
2022 Annual Report (WC TO 5)	\$ 40,000	\$ 7,500	\$ 47,500
Project Development: FIRO/FloodMAR/GRAT		\$ 7,500	\$ 7,500
Grants and Matching Fund Support	\$ -	\$ 10,000	\$ 10,000
Professional Services (WC A-18-01) Shallow Wells	\$ 175,000		\$ 175,000
(P 68, TO2) DMS Implementation		\$ 20,000	\$ 20,000
(P 68, TO2) Monitoring Network Expansion Engineering		\$ 7,500	\$ 7,500
(P68, No TO) Monitoring Network Expansion Drilling	\$ 175,000	\$ 10,000	\$ 185,000
TO 4 Model Devel & Support	\$ 130,000		\$ 130,000
Basin Accounting Framework & Funding and Financing (P68 Impl Grant) (David's 175K Agreement& WC TO 5 - \$25K)	\$ 200,000	\$ 7,500	\$ 207,500
County Counsel Legal Services	\$ 5,000		\$ 5,000
Professional Services Counsel	\$ 40,000		\$ 40,000
Reserve- dedication of carry over	\$ 100,000		\$ 100,000
Reserve Costs (\$50K model, \$150K GSP update)	\$ 100,000		\$ 100,000
TOTAL EXPENSES	\$ 1,030,300	\$ 147,500	\$ 1,177,800
			Reserve Balance FY 21/22
Reserve 20/21	\$200,000		
FY 20/21, Allocated to TO4 model	\$130,000		
Reserve Balance at end of 2021	\$ 70,000		
FY 21/22 Reserve Contribution	\$100,000		\$ 170,000
Estimated Carry over bal to Reserve	\$100,000		\$ 270,000

* = Appropriation Adjustment

** = Allocation Adjustment

EXHIBIT C

PROPOSED BUDGET ALLOCATION ADJUSTMENTS

The following paragraphs and tables outline proposed 2021-2022 budget allocation adjustments to add a fifth task order to Agreement A-20-1 and to establish appropriations for consultant activities regarding development of a basin water accounting framework and an evaluation of funding and financing alternatives.

1. Addition of Task Order No. 5 to Agreement A-20-1 (*Woodard and Curran*):

- Components 1 and 3 of Task Order No. 5 were allocated \$90,000 in total appropriations in the adopted FY 21-22 budget.
- Woodard and Curran’s current cost proposal for components 1 and 3 is \$65,000, and the inclusion of Component 2 is \$25,000.
- No increase in appropriation is necessary to fund the addition of Task Order No. 5 to A-20-1.

The three components to Task Order No. 5 and the associated costs are illustrated in the following table:

Component	Function	Cost	Budget allocation change
1	Preparation of 2021 Annual Report	\$40,000	No Change
2	Support to the development of a Basin Accounting Framework and Funding/Financing Alternatives	\$25,000	Component 2 is located in; line-item “Funding and Financing”
3	Response to DWR GSP Comments	\$25,000	Reduce allocation from \$50k to 25K; transfer \$25K to line-item “Funding and Financing”
Total		\$90,000	<i>No new appropriation needed</i>

2. Development of a basin accounting framework and an evaluation of funding and financing alternatives:

- A RFQ was issued by the GWA and resulted in the selection of Davids Engineering, Inc. for this project.
- The adopted FY 21-22 budget allocated \$75,000 to line-item “Funding and Financing” for this project.
- Davids Engineering’s proposal identified their fee to be \$175,000.
- A \$100,000 reduction in line-item “Reserve Cost” and transferred to line-item “Funding and Financing” is recommended to fund Agreement.
- No increase in appropriation is necessary to fund Agreement with David’s Engineering.

A. The following table highlights proposed changes in line-item allocations to fund contract with Davids Engineering:

Line-Item	Adopted Allocation	Proposed Increase/(Decrease)	"Funding & Financing" Line-Item addition
Reserve Cost	\$200,000	(\$100,000)	\$100,000
Funding & Financing	\$75,000	0	\$75,000
Total			\$175,000

B. The following table highlights proposed changes in line-item allocations as a result of changes in tables A & B above.

Line-Item	Adopted Allocation	Proposed Incr/(Decr)	Transferred to Line-Item	Adjusted Total
Response to DWR Review	\$50,000	(\$25,000)	B.A F & Funding & Financing	\$25,000
Reserve Cost	\$200,000	(\$100,000)	B.A F & Funding & Financing	\$100,000
B.A F & Funding & Financing	\$82,500	\$125,000	-	\$207,500
FY 21/22 Reserve Contribution	\$200,000	(\$100,000)		\$100,000
Estimated Carry over balance to Reserves	\$370,000	(\$100,000)		\$270,000



EASTERN SAN JOAQUIN GROUNDWATER AUTHORITY

STAFF REPORT

December 2, 2021

To: TAC, SC and Board
From: Matt Zidar, Water Resources Manager
RE: DWR SGMA Implementation Grant Proposal Solicitation Package and ESJ GWA Strategy

Background

The Department of Water Resources (DWR) is administering the Sustainable Groundwater Management (SGM) Grant Program's SGMA Implementation – Planning and Projects Grant solicitations process. Only one proposal can be submitted from each region. The Eastern San Joaquin Groundwater Authority (GWA) needs a strategy to take maximum advantage of the opportunity and continue to implement the Eastern San Joaquin Groundwater Sustainability Plan (GSP). Up to \$7.6M is available to each Critically Overdraft (COD).

Discussion

A. Proposal Solicitation Package and Requirements

DWR is administering the Sustainable Groundwater Management (SGM) Grant Program's SGMA Implementation – Planning and Projects Grant solicitations using funds authorized by the California Budget Act of 2021 (Stats. 2021, ch. 240, § 80) (Budget Act) and Proposition 68 for projects that encourage sustainable management of groundwater resources that support SGMA and/or invest in groundwater recharge projects with surface water, stormwater, recycled water, and other conjunctive use projects. The Budget Act can also provide funding for planning activities that support SGMA implementation. The draft Proposal Solicitation Package (PSP) was released in October 2021. Comments were due on November 29, 2021.

There will be two rounds of funding. Round 1 will distribute \$152 M to Critically Overdrafted Basis (CODs) which will be split evenly between COD basins with each receiving \$7.6 Of that amount, a minimum of \$3.7 must be used for activities that include;

- Geophysical investigation(s) of groundwater basins to identify recharge potential (e.g., Aerial Electromagnetic Surveys);
- Early implementation of existing regional flood management plans that incorporate groundwater recharge (e.g., basin recharge using floodwater); or
- Projects that would complement efforts of a local GSP, that provide for floodplain expansion to benefit groundwater recharge or habitat (e.g., basin recharge using peak flows from a river, creek, or stream).PSP)

If this \$3.7 "directed action" money is not fully used consistent with the intent above, then the money can be allocated by DWR to other areas outside the Eastern San Joaquin Subbasin.

Only one Spending Plan will be accepted per COD Basin. The Budget Act requires all funding agencies to use a competitive process to expedite execution of grant agreements and get the funding out to eligible applicants as quickly as possible. Each **COD Basin will be required to conduct a self-evaluation** of their project list using the scoring criteria outlined in the PSP (Table 7) to determine which projects are the most competitive within the basin. These self-evaluations shall be submitted as backup documentation to a **Spending Plan**. The Spending Plan must be in the template provided by DWR. Any other format will not be reviewed and the funding for that COD Basin will be forfeited. Each applicant should provide a Spending Plan for a minimum of \$10 million for the SGM Grant Program staff to review and rank. The purpose for submitting \$10M in projects is to leave room from negotiation and to identify funding priorities should the legislature decide to increase the budget appropriation to the SGMA grant program. The COD Basin applicants have until noon on January 31, 2022 to submit the proposal for the region.

B. ESJ Strategy

A call for Project was issued to all members of the GWA on October 29, 2021, and responses were due by November 9, 2021. Two project proposals were received on for the North San Joaquin Water Conservation District North Systems Improvement and one from San Joaquin County on behalf of the Mokelumne River Water and Power Authority for development of the project to take the water available under water rights Application 29835. In addition, staff has been working to develop project concepts to take maximum advantage of the \$3.7M in directed action money. A preliminary draft Spending Plan is attached to facilitate further discussion of the ESJ Strategy. Per the grant requirements a project review committee is to identify the projects to be included in the final proposal. The Steering Committee has delegated the responsibility to the Technical Advisory Committee to serve as the project review committee. Board of Directors will make the final selection based on a TAC recommendation.

Recommendation

- A. TAC to achieve consensus on a potential work plan that incorporates the two submitted projects from NSJWCD and SJC, and additional project concepts to meet the minimum \$10 million spending plan requirement.

December 2021 DWR Updates (from DWR's North Central Region Office)

Grants

California Grants Portal

The California State Library, in partnership with the Department of Water Resources and other state grantmaking agencies, has launched the California Grants Portal – your one destination to find all state grant and loan opportunities provided on a first-come or competitive basis. Visit grants.ca.gov to find funding opportunities for you and your community.

DWR: DRAFT SGMA Funding Guidelines and Proposal Solicitation Package

The California Department of Water Resources (DWR) has released the draft [Guidelines](#) and [Proposal Solicitation Package](#) (PSP) for the [Sustainable Groundwater Management \(SGM\) Grant Program's](#) Sustainable Groundwater Management Act (SGMA) Implementation Funding. Round 1 will provide over \$150 million by spring 2022 to regional groundwater agencies in critically overdrafted basins for planning and implementation projects to help comply with SGMA. Future solicitation in 2022-2023 will provide over \$204 million from various funding sources. The public comment period has closed, and the final solicitation is expected to open in December, 2021.

DWR: \$200 Million Drought Funding to Support Small Communities

DWR released [guidelines](#) for how small water systems may apply for funds as part of the Small Community Drought Relief Program. Eligible projects must be designed to benefit small communities (< 3,000 connections or 3,000 AFY) located in counties under Governor Newsom's drought emergency proclamations or which the SWRCB may determine that drought conditions necessitate urgent and immediate action. Small communities impacted by the drought are encouraged to apply as soon as possible as funds will be dispersed on a first come first serve basis and can submit applications or questions to SmallCommunityDrought@water.ca.gov. This grant will fund projects that provide immediate or interim drinking water supplies such as hauled or bottled water deliveries, deepening of wells, new or temporary water tank storage, new pipelines and connections to more reliable nearby systems, etc. No local cost share is required.

DWR: Final PSP for \$200 Million Drought Funding for Urban and Multibenefit Projects

We are pleased to announce the release of the [FINAL 2021 Guidelines/Proposal Solicitation Package](#) for the Urban and Multibenefit Drought Relief Grant Program for public review. This solicitation will make approximately **\$190 million in grant funding** available for interim or immediate relief in response to conditions arising from drought across California. The drought relief goal is to address immediate impacts on human health and safety and on fish and wildlife resources, and to provide water to persons or communities that lose or are threatened with the loss or contamination of water supplies. Applications will be received on a rolling basis, but those received by November 19th will be considered for the first batch of awards. Applications that are not awarded in the first phase and new applications submitted between November 20 and December 17, 2021 will be considered for the second phase of awards.

CalOES: 2021 funding opportunity for FEMA's Hazard Mitigation Grant Program

This opportunity provides funding for communities to implement mitigation activities to reduce risk to life and property from natural hazards. In CA, natural hazards include wildfire, earthquake, drought, extreme weather, flooding, and other impacts of climate change. HMGP funding can also support the development of Local Hazard Mitigation Plans (LHMP) and project scoping activities. The deadline for NOI submission is December 13th and [more information can be found here](#).

Berkeley: Funding Opportunity for Government Innovators

[The People Lab](#) at UC Berkeley invites applications from government agencies and nonprofits across California to co-design and test innovative policy ideas that have the potential to meaningfully improve the lives of Californians. Grant awards will include 2 years of technical support from UC Berkeley's The People Lab and

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\$100,000 - \$150,000 for project implementation. **Applications are being accepted on a rolling basis, [and more info can be found here.](#)**

Other state & federal grant websites for resources that may be helpful are:

- California Financing Coordinating Committee -- <https://cfcc.ca.gov/>, and
- CalOES grants -- <https://www.caloes.ca.gov/cal-oes-divisions/grants-management>
- US EPA -- <https://www.epa.gov/grants/specific-epa-grant-programs>, and
- Economic Development Administration -- <https://eda.gov/funding-opportunities/>

Upcoming conferences, webinars, new reports and data

DWR Released California's Groundwater Update 2020 (formerly Bulletin 118) and California's Groundwater Live Online

The Department of Water Resources (DWR) today released the final [California's Groundwater – Update 2020 \(Bulletin-118\)](#), containing information on the condition of the State's groundwater, which is especially important with most of California facing ongoing drought conditions. DWR has also developed a companion web-based application called [California's Groundwater Live](#) (CalGW Live), leveraging the [California Natural Resources Agency Open Data Platform](#) (Open Data) to improve the access and timeliness of statewide groundwater information. The easy-to-use interface will make many of the data sets used in CalGW Update 2020 available in an interactive map format that will be updated regularly for viewing and downloading.

For more information, visit the updated [California's Groundwater website](#) Contact: CalGW@water.ca.gov

Multibenefit Land Repurposing Program, Department of Conservation

Two workshops to hear what stakeholders would like to see in our upcoming Multibenefit Land Repurposing Program. Implementation of the Sustainable Groundwater Management Act requires coordinated management of landscapes to minimize economic, social, and environmental impacts from the transition of agricultural lands to less water-intensive land uses while providing benefits to local and regional communities. The Multi-Benefit Land Repurposing Program seeks to increase regional capacity to repurpose agricultural land to reduce reliance on groundwater while providing community health, economic wellbeing, water supply, habitat, renewable energy, and climate benefits. Registration for workshop on [December 2nd from 5 – 7pm](#) is here or comments can be sent to shanna.atherton@conservation.ca.gov.

Updated Groundwater Conditions Report and Maps Available

The [California Groundwater Conditions Update – Spring 2021](#) report and accompanying [maps](#) are available on DWR's Data and Tools webpage. The report and maps include a discussion of groundwater level trends with multi-year comparisons to spring 2021 groundwater level data.

Week of Webinars on Statewide Groundwater Management Efforts

DWR is hosting a week of webinars on statewide groundwater management efforts. **All presentations were recorded and will be posted on the SGMA webpage shortly.**

- 2022 Groundwater Sustainability Plan (GSP) Submittal Workshop
- 2022 Alternative 5-year Update Submittal Workshop
- Resources for Sustainable Groundwater Management Act (SGMA) Implementation
- Accessing Groundwater Data and Tools

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Water Board: Drinking water needs assessments

For the first time, the State Water Resources Control Board has completed a comprehensive look at California water systems that are struggling to provide safe drinking water. [The needs assessment](#) identifies failing water systems and those at risk of failing. It also offers the most in-depth view of long-term drinking water safety the state has ever had. Details are available in this [news release](#).

SGMA

Dry Well Reporting Site

There is a website available to [report private wells going dry](https://mydrywatersupply.water.ca.gov/report/) at <https://mydrywatersupply.water.ca.gov/report/>. This information reported to this site is intended to inform state and local agencies on drought impacts on household water supplies. The data reported on this site (excluding personal identifiable information) can be viewed on the [SGMA data viewer](#) or downloaded on the [CNRA Atlas](#). Individuals or local agencies can report water shortages and [a list of resources](#) are included on the webpage. The reporting forms are available in both English and Spanish.

DWR is developing eight Proposition 68-funded technical projects

These projects include airborne electromagnetic surveys, improving groundwater elevation and quality monitoring networks, Statewide land use data collection, improved subsidence monitoring network, installing and maintaining stream gauges, maintaining and enhancing statewide well completion reports, managing and reporting sustainable groundwater information, and enhancing and maintaining DWR's modeling tools. Fact sheets on each project can be viewed under the "Prop 68" tab [here](#).

- [AEM webpage](#) contains information on the how the process works, safety, schedule, data submission by GSAs, TAC, pilot study data and more. Public webinar was held **June 8th 12:00 – 1:00**, a [recording can be viewed here](#) and [handouts can be downloaded here](#). **Sonoma Valley Basins were surveyed in November, 2021 and North San Joaquin and Southern Sacramento basins planned for surveying in April 2022.**
- [2018 Statewide Crop Mapping data](#) dataset builds on the 2014 and 2016 statewide crop mapping datasets DWR previously released and includes multi-cropping information. The 2018 dataset includes agricultural land use and urban boundaries for all 58 counties in California. Water year 2019 is planned to be released in 2022.
- [InSAR subsidence data](#) is now available [through](#) October of 2020 and can be viewed on the [SGMA data viewer](#). The updated GIS services and data reports are also available [online](#). Future data will be released on a quarterly basis.

DWR Releases First and Second batches of GSP Assessments

On June 3rd, DWR released its first assessments of groundwater sustainability plans, which includes the approval of GSPs for the Santa Cruz Mid-County Basin and the 180/400-Foot Aquifer Subbasin. In addition, DWR also notified GSAs in the Cuyama Valley Basin and Paso Robles Subbasin that their GSPs lack specific details and are not yet approved. **On November 18th, 2021 the next round of assessments were released** including the approval of GSPs for the North and South Yuba Subbasins in Yuba County and the Oxnard Subbasin and Pleasant Valley Basin in Ventura County. In addition, DWR also notified groundwater sustainability agencies (GSAs) in the Eastern San Joaquin Subbasin, Merced Subbasin, Chowchilla Subbasin, and Westside Subbasin that their GSPs lack specific details and are not yet approved. These assessments and notification letters, along with other pertinent information, can be viewed [here on the DWR SGMA Portal](#). Alongside the assessments, DWR has also prepared:

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Outreach and Educational Materials Available

DWR's [SGMA Assistance and Engagement webpage](#) has added new communication and engagement toolkit items including:

- A new video – [Groundwater: California's Vital Resource](#) now available in [English](#), [Spanish](#), [Punjabi](#), and [Hmong](#)
- A Story Map for a non-technical audience – [Groundwater: Understanding and Managing this Vital Resource](#)
- [Guidance on Engaging and Communicating with Underrepresented Groundwater Users](#)
- [SGMA Communications: Media Relations and Social Media](#), including [DWR's Groundwater Media Contacts](#)
- “DWR's Assistance Role in Groundwater Management” video: [English](#) and [Spanish](#)

CASGEM to Monitoring Network Module Transition Frequently Asked Questions Available

The [CASGEM to Monitoring Network Module Transition Frequently Asked Questions](#) (FAQ) document covers questions related to the Groundwater Monitoring Law, the California Statewide Groundwater Elevation Monitoring (CASGEM) Program, a GSP's required monitoring, the SGMA Portal's Monitoring Network Module (MNM), and a basin's or subbasin's transition from the CASGEM Online System to the SGMA Portal's Monitoring Network Module .

SGMA Water Year Type Dataset Now Available

In the dataset, the water years are labeled as wet, above normal, below normal, dry, or critical based on the amount of precipitation during that water year and the previous one. The information is available for all California watersheds except those underlying the Sacramento River and San Joaquin River Hydrologic Regions since that information is already available. [Data](#) and a [development report](#) are now available.

SVSim Beta Model Released

DWR has released the beta version of the [Sacramento Valley Groundwater-Surface Water Simulation Model \(SVSim\)](#) that can be used during GSP development. Instructions for use are included in the [Roadmap to Running SVSim](#) document.

C2VSim Fine Grid Update Published April 2021

DWR has released an update to the Fine-Grid California Central Valley Groundwater-Surface Water Simulation (C2VSimFG) Model, which can be used by Groundwater Sustainability Agencies (GSAs) developing water budgets for their GSPs. [C2VSimFG Version 1.01](#) utilizes the latest version of the Integrated Water Flow Model software and corrects minor errors in the model files. These updates do not significantly affect the overall model calibration; however, resulting changes to simulated groundwater levels may vary by basin.

Draft Handbook for Water Budget Development

The handbook has been posted on the SGMA webpage and can be [viewed at the following link](#) under the “reports” tab. A recent webinar discussing the handbook with a deeper dive on 4 topics [can be viewed here](#).

California Groundwater Conditions Update Report and Maps Available

The [California Groundwater Conditions Update – Spring 2020](#) report and accompanying [maps](#) are available on the DWR website and present a summary of groundwater level data. The report and maps include a discussion of groundwater level trends with multi-year comparisons which can assist with the development of Groundwater Sustainability Plans (GSPs).

Facilitation Support Services (FSS): [Funding still available](#)

- GSA's developing GSPs are eligible to receive funding for identification and engagement of interested parties, meeting facilitation, interest-based negotiation/consensus building, and public outreach facilitation
- More information [can be found here](#). [New written translation services available in 10 languages for outreach materials \(5,000 word maximum\).](#)

Media Clippings. November 24, 2021

Senior rights holders battle state over water pacts

“There are no shortages of critical issues facing Oakdale Irrigation District in central California. As the state looks to take 40% of the district’s springtime river flows, district directors are searching for their next water champion. Next year’s retirement of General Manager Steve Knell means more than a board action to hire his replacement. For a district with water rights to the Stanislaus River dating back to the mid-19th Century, the new skipper to take the helm will surely be part of a charge to protect the district’s sustainable access to its rights to 300,000 acre-feet of river water. ...” Read more from the Western Farm Press here: [Senior rights holders battle state over water pacts](#)

From <<https://mavensnotebook.com/2021/11/12/weekly-water-news-digest-for-nov-7-12-managed-floodplain-fish-food-dwr-drought-barrier-update-pablo-ortiz-on-adapting-to-climate-change-plus-all-the-top-water-news-of-the-week/>>

Restore the Delta defends Stockton’s water rights application

“[Tuesday], Restore the Delta presented a letter to the State Water Resources board defending the City of Stockton’s water right application for the Delta Water Supply Project. At issue is whether the City’s water diversion and treatment system will be put to full use, or sit as a partially stranded asset, harming Stockton’s water quality, especially in environmental justice (“disadvantaged”) communities. The letter concludes... “Finally, forcing the City of Stockton to accept its water diversion and treatment system as a partially stranded asset would be discriminatory. Stockton is home to a large environmental justice (or “disadvantaged”) community, and can ill afford to have its municipal water system be the object of harassment by the Water Board and protestants to this proceeding.” ...” Continue reading from Restore the Delta here: [Restore the Delta defends Stockton’s water rights application](#)

From <<https://mavensnotebook.com/2021/11/12/weekly-water-news-digest-for-nov-7-12-managed-floodplain-fish-food-dwr-drought-barrier-update-pablo-ortiz-on-adapting-to-climate-change-plus-all-the-top-water-news-of-the-week/>>

CalGW Update 2020, State’s official groundwater report, released by DWR

DWR has released California’s Groundwater (CalGW) Update 2020, the State’s most up-to-date compendium of statewide data and information on groundwater resources and its management. CalGW Update 2020 (also known as DWR Bulletin 118) consists of a highlights document (English and Spanish), a detailed statewide report, hydrologic region summaries. and appendices. Details are

available in this DWR news release. [California's Groundwater Update 2020 \(Bulletin 118\) - Datasets - California Natural Resources Agency Open Data](#)

New interactive website offers latest data on California's groundwater

In conjunction with CalGW Update 2020, DWR has released California's Groundwater Live. This user-friendly interactive website allows users to explore, analyze, and visualize the latest groundwater data and information for California. [California's Groundwater Live](#)

Draft Drinking Water Well Principles and Strategies Document Open for Public Comment

The Draft Groundwater Management and Drinking Water Well Principles and Strategies are now available for public review and can be found at the Drinking Water Wells Principles website. The State will host a 30-day public comment period and public webinar to review the draft principles and strategies and accept formal public comments. Public comments are due no later than Thursday, October 7, 2021 by 5:00 PM PDT. You can submit a public comment by the deadline or ask us questions anytime by sending an email to sgmps@water.ca.gov. [Drinking Water Well Principles \(ca.gov\)](#)

DWR Integrated Hydrologic Models and Water Budget Pilot Projects FAQ () | (Revision Date: Sep 21, 2017) (Publish Date: Sep 21, 2017) Version: 1

These frequently asked questions (FAQ) have been addressed by DWR's staff working on the enhancement of publically available tools, such as the California Central Valley Groundwater-Surface Water Simulation Model (C2VSim) and the Integrated Water Flow Model (IWFm). These tools are being enhanced by the California Department of Water Resources (DWR) to foster and improve understanding of groundwater conditions (including the preparation of water budgets) at the State and regional levels. From <https://water.ca.gov/Programs/Groundwater-Management/Data-and-Tools>

DWR Modeling Tools Fact Sheet () | (Revision Date: Apr 20, 2018) (Publish Date: Apr 20, 2018) Version: 1

The California Department of Water Resources (DWR) has prepared this fact sheet to inform local agencies and stakeholders about DWR's integrated hydrologic modeling codes and applications, including their current status and plans for future development. Note that any future timelines mentioned in this document are subject to change. From <https://water.ca.gov/Programs/Groundwater-Management/Data-and-Tools>

Draft Handbook for Water Budget Development

The handbook has been posted on the SGMA webpage and can be viewed at the following link under the "reports" tab. A recent webinar discussing the handbook with a deeper dive on 4 topics can be viewed here. [Data and Tools \(ca.gov\)](#)

The Current Drought: Time to Hope for the Best, Prepare for the Worst. [The Current Drought: Time to Hope for the Best, Prepare for the Worst - Public Policy Institute of California \(ppic.org\)](#)

Water is central to how California adapts to a changing climate. To those of us steeped in the complexities of managing the state's water resources, the current fast-moving drought—coming on the

heels of the record-breaking 2012–16 drought—is a stark reminder that we must accelerate preparation for the disruptive changes underway. Californians have taken steps to address major threats to our water resources but more is needed. .