BEDFORD COLDWATER GROUNDWATER SUSTAINABILITY AUTHORITY (BCGSA)

BOARD MEETING
AGENDA
May 16, 2019
4:00 PM

Temescal Valley Water District Administrative Offices
22646 Temescal Canyon Road, Temescal Valley, California 92883

1. Call to Order and Roll Call

2. Public Comment

Any person may address the Board at this time upon any subject not identified on this Agenda, but within the jurisdiction of Bedford Coldwater Groundwater Sustainability Authority; however, any matter that requires action will be referred to staff for a report and action at a subsequent Board meeting. As to matters on the Agenda, an opportunity will be given to address the Board when the matter is considered

3. Consent Calendar

A. Approval of Minutes of the February 21, 2019 Meeting

B. Ratification of Demands

C. Receive and File Financial Statement

4. Business Calendar

A. Approval of Amendment No. 1 to Service Agreement with Elsinore Valley Municipal Water District

B. Adoption of Reserve Policy

C. Appointment of ACWA JPIA Representatives

D. Approval of FY 2019-2020 Budget

E. Approval of a Professional Services Agreement for Bedford Coldwater Sub-basin Groundwater Sustainability Plan Development

5. Administrator's Update

6. Legal Counsel Report

7. Comments of the Board

8. Adjourn

Date: May 16, 2019

To: Board of Directors

From: Deputy Treasurer

ITEM 3.A.: APPROVAL OF MINUTES OF THE MEETING OF FEBRUARY 21, 2019

RECOMMENDATION:

That the Board of Directors:

1. Approve the Minutes of the Bedford-Coldwater Groundwater Sustainability Authority meeting of February 21, 2019.

DISCUSSION:

Draft meeting minutes are presented for consideration for approval.

FISCAL IMPACT:

Not applicable.

ENVIRONMENTAL REQUIREMENTS:

Not applicable

EXHIBITS/ATTACHMENTS:

Draft Meeting Minutes

MINUTES OF THE
MEETING OF THE
BEDFORD-COLDWATER
GROUNDWATER SUSTAINABILITY AUTHORITY

February 21, 2019

Board Present
Paul Rodriguez, TVWD
Phil Williams, EVMWD
Jacque Casillas, City of Corona

Staff Present
Jeff Pape, TVWD
Katie Hockett, City of Corona
Margie Armstrong, EVMWD
Jesus Gastelum, EVMWD
Parag Kalaria, EVMWD
Terese Quintanar, EVMWD
Victor Harris, Stantec
Kelly Shugart, Stantec
Manuel Serpa, Olivarez Madruga Lemiuex O'Neill, LLP

1. CALL TO ORDER AND ROLL CALL

The meeting of the Bedford-Coldwater Groundwater Sustainability Authority was held at its principal offices located at 22646 Temescal Canyon Road, Temescal Valley, California. The meeting was called to order by Chairman Rodriguez at 4:00 p.m.

2. PUBLIC COMMENT – None.

3. CONSENT CALENDAR

A. Approval of Minutes of the November 15, 2018 Meeting

B. Ratification of Demands

C. Financial Statement

Chairman Rodriguez noted corrections to pages 2 and page 3 of the November 15, 2018 meeting minutes.

ACTION: Chairman Rodriguez made a motion, Vice-Chairman Williams seconded and the motion carried unanimously to approve Consent Calendar Item 3.A.

ACTION: Vice-Chairman Williams made a motion, Director Casillas seconded and the motion carried unanimously to approve Consent Calendar Item 3.B.

Chairman Rodriguez clarified for the record that Item 3.C was numbered incorrectly as 5.C, on the staff report.

ACTION: Chairman Rodriguez made a motion, Vice-Chairman Williams seconded and the motion carried unanimously to approve Consent Calendar Item 3.C.

4. BUSINESS CALENDAR

A. Receive and File the Audited Financial Statements for Fiscal Year Ending June 30, 2018 *(MO# 21)*

Margie Armstrong explained this is our first audited Financial Statement and referred to the Statement of Net Position, reporting our cash amount at $290,596. Referencing the Statement of Revenues, Expenses, and Changes in Net Position, Ms. Armstrong relayed that financial statements have been produced on a quarterly basis and member contributions total $103,815. Operating Expenses include fees paid to EVMWD, Stantec and other consultants, which total $79,063. We have also had some legal fees and bank fees associated with opening the account. There has been a little interest income and member contribution used so far in this fiscal year.

Referencing the Statement of Cash Flows, Ms. Armstrong reported that this reflects cash in and out and is somewhat of a duplication of the Statement of Revenues, Expenses, and Changes in Net Position. Money coming in is member contribution and interest. Notes are regarding accounting policies, cash equivalents, and also mention what we allow in the Investment Policy adopted by this Board.

Director Casillas asked about the Required Supplemental Information and asked for clarification of that wording on page 2 of the Independent Auditors Report. Ms. Armstrong answered that for the first year we elected to keep it small and there were not a lot of activities through the Authority. This section was added for cost purposes, there was not anything there to report.

Chairman Rodriguez referenced page 6 and asked why the Operating Income is indicated as a negative number. Ms. Armstrong answered that the Operating Income has to tie back to the information on page 5, on the Non-Operating Interest and Income and total Non-Operating Revenue/Expenses and Total operating Income and Loss. It is shown as a negative number because interest is considered non-operating, but shows as a positive on the Operating side. When Auditors review the Statement of Cash Flows, they start with that net operating number. Chairman Rodriguez asked if it could be done differently, and Ms. Armstrong explained that this is the way the Statement must be structured. It is not within our discretion to change it. She explained that this will be reflected the same each year. Mr. Pape added that loss on the Operating side is made up by interest income. Ms. Armstrong continued that we cannot list the full amount of

member contribution as revenue because we didn't use the full amount. Chairman Rodriguez stated that because the prior year contributions are to cover current year expenses, and by definition will exclude interest, it appears to be dual entries that negate each other and appear off. He suggested the notes explain this for the layperson in the future.

5. ADMINISTRATOR'S UPDATE

Mr. Harris reported that conferences with staff are done monthly or more often. We have upgraded the website, after incident with malware. Director Casillas was added to the website and she thanked Ms. Hockett. The RFP is drafted and reviewed and will soon be placed on PlanetBids and individual consultants will also be notified and made aware of the opportunity. Todd Groundwater pulled all area data and compiled a report with basic basin information. Staff with DWR covered details of grant requirements, and we will pull together costs for the State, and the first progress report will be submitted shortly after June. Well canvas is underway by Todd Groundwater, and they are identifying wells to see if they still exist and if they can be fitted with monitoring equipment. Each well will be photographed and cataloged. The RFP will be released in a way to give consultants time for development of their proposal. Staff will review submittals and can present them for Board review in May.

For the benefit of Director Casillas, Jeff Pape reported that the Bedford-Coldwater basin is a sub-basin of the Elsinore Basin. Creating the Bedford-Coldwater JPA was a big endeavor. There were many meetings held, including lawyers of each agency, to draft the formation documents. Following formation, we sought consultants to help with administration. This group is unique, as there are two large districts and one small district. All three entities (EVMWD, City of Corona and the JPA) have their own GSAs. Each has applied for their own grant funds, so we rely on that experience. We have three grants for three basins, with three agencies involved. The Bylaws for the JPA took four or five months to draft and approve.

Answering Vice Chairman Williams, Mr. Harris stated that grant administration is done through Stantec. Stantec will do the bulk of the work, but the Department of Water Resources also recognizes Ms. Armstrong as the Administrator.

Chairman Rodriguez expressed concern that interest may be limited due to the short amount of time between submittal deadline and review. Mr. Harris answered that we may need to revise the dates to allow more time to review. Chairman Rodriguez warned against rushing the process to stay on schedule. Mr. Pape added that we will want to make sure we are in compliance with the grant requirements and we may be able to shorten time up and make the May board meeting, but there is no need to rush. Answering Chairman Rodriguez, Mr. Harris stated that not a lot of RFPs have been issued. Ms. Hockett added that many agencies have grant agreements coming out now. DWR is finalizing a kick-off meeting for the grant, so many agencies have not yet issued them. Mr. Harris stated that we are not the first to issue an RFP. Also, we are not a high

priority basin. There are no medium priority basins (or GSAs) that have not been awarded grants. Ms. Armstrong stated that we were “medium” priority but were downgraded to “low.” We are proceeding as if we were still a “medium” priority. Mr. Pape stated that a lot of people will want to do the GSP, and that to get people out to the Technical Committee is very difficult. Once people are aware of us, there may be a lot of interest. Mr. Harris stated that the typical RFP defines regulations and we have determined that outreach to be done by staff. We don’t expect a huge controversy. Looking at some of the RFPs, we are the early middle in getting ours out there. It is written to keep consultants from saying they don’t understand. The data collection for the basin is done and stakeholder outreach is being done by staff will keep costs lower. Answering Chairman Rodriguez, Mr. Harris reported that a Stantec staff member who used to work for the State will be able to provide comments concerning the Delta or the Governor’s actions.

6. LEGAL COUNSEL REPORT

Mr. Serpa relayed that an Agreement template was forwarded from Ms. Armstrong and it was reviewed and was found to be very solid and easily customizable. We will include the draft Agreement template with the RFP, without exception or explanation of exception upon submittal. Chairman Rodriguez commented that we have a good foundation amongst the three jurisdictions.

7. COMMENTS OF THE BOARD

Chairman Rodriguez welcomed Director Casillas and commented on the strength of our resolve to protect local water sources and minimize our dependence on outside sources. Forty percent of water sales are non-potable and this has been done by working with neighbors.

8. ADJOURN

There being no further business, the February 21, 2019 regular meeting of the Bedford-Coldwater Groundwater Sustainability Authority was adjourned at 4:40 p.m.

ATTEST:	**APPROVED:**
_____	_____
Phil Williams, Vice-Chairperson	Paul Rodriguez, Chairperson
Date: _____	Date: _____

Date: May 16, 2019

To: Board of Directors

From: Deputy Treasurer

ITEM 3.B.: RATIFICATION OF DEMANDS

RECOMMENDATION:

That the Board of Directors:

1. Ratify the demands listed on the Cash Disbursement Report for the period of February 2019 through April 2019.

DISCUSSION:

The Cash Disbursement Report for the period of February 2019 through April 2019 is attached for consideration for approval.

FISCAL IMPACT:

Not applicable.

ENVIRONMENTAL REQUIREMENTS:

Not applicable

EXHIBITS/ATTACHMENTS:

1. Cash Disbursement Report – February through April, 2019

BEDFORD COLDWATER
Groundwater Sustainability Authority

Print Date: 05/07/2019

AP Disbursement Report

Cash Disbursements for 02/01/2019 through 04/30/2019

Check or Reference #	Payment Date	Paid to Vendor	Payment Description	Interim Justification	Pmt Type	Payment Amount
INTERIMS						
109	02/07/2019	ELSINORE VALLEY MWD	MONTHLY ADMINISTRATION FEE-JAN 2019	DUE UPON RECEIPT	CHECK	1,000.00
110	02/07/2019	ROGERS, ANDERSON, MALODY & SCO	YEAR END AUDIT 2018 FINAL BILLING	DUE 12/31/2018	CHECK	1,000.00
111	02/21/2019	STANTEC CONSULTING SERVICES	CONSULTING SERVICES	DUE UPON RECEIPT	CHECK	4,062.42
112	02/28/2019	TODD GROUNDWATER	BEDFORD COLDWATER GSA	DUE 03/08/2019	CHECK	1,386.03
113	03/07/2019	ELSINORE VALLEY MWD	MONTHLY ADMINISTRATION FEE - FEB 2019	DUE 02/28/2019	CHECK	1,000.00
114	03/21/2019	STANTEC CONSULTING SERVICES	CONSULTING SERVICES	DUE 04/01/2019	CHECK	8,490.96
115	03/21/2019	OLIVAREZ MADRUGA LEMIEUX ONEIL	LEGAL FEES	DUE 03/28/2019	CHECK	920.00
116	03/28/2019	AMJ CONSTRUCTION MANAGEMENT IN	PROFESSIONAL SERVICES	DUE 01/18/2019	CHECK	10,720.00
117	04/11/2019	ELSINORE VALLEY MWD	MARCH ADMINISTRATION FEE	DUE 05/02/2019	CHECK	1,000.00
118	04/11/2019	GOLIATH GRAFFIX	WEBSITE DESIGN & DEVELOPMENT	DUE 03/28/2019	CHECK	200.00
119	04/11/2019	US BANK	P CARD PURCHASE	DUE 04/11/2019	CHECK	236.60
120	04/18/2019	STANTEC CONSULTING SERVICES	BEDFORD COLDWATER GW	DUE 04/18/2019	CHECK	9,338.06
121	04/18/2019	OLIVAREZ MADRUGA LEMIEUX ONEIL	LEGAL FEES	DUE 04/18/2019	CHECK	20.00

Current Payments Issued: **$39,374.07**

Reviewed By: _____

Date: 5/7/19

Date: May 16, 2019

To: Board of Directors

From: Deputy Treasurer

ITEM 3.C.: RECEIVE AND FILE MARCH 31, 2019 FINANCIAL STATEMENT

RECOMMENDATION:

That the Board of Directors:

1. Take action to Receive and File the March 31, 2019 Financial Statement.

DISCUSSION:

The March 31, 2019 Financial Statements are attached for review.

FISCAL IMPACT:

Not applicable.

ENVIRONMENTAL REQUIREMENTS:

Not applicable

EXHIBITS/ATTACHMENTS:

March 31, 2019 Financial Statement

Bedford Coldwater Groundwater Sustainability Authority
FINANCIAL STATEMENT
AS OF March 31, 2019

REVENUE	
Member Contributions Carryover	$ 265,185
Interest Income	364
TOTAL REVENUE	265,549
EXPENSES	
Legal Expenses	3,955
EVMWD - JPA Administration Charges	9,000
Stantec - JPA Administrator	55,558
Consulting Expense - GSP Preparation	29,539
Consulting Expense - Logo Development	4,000
Consulting Expense - Website Development	10,720
Auditing Services	1,000
Insurance Premium	1,318
ACWA Dues	719
Bank Fees	1,807
TOTAL EXPENSES	117,616
MEMBER CONTRIBUTION BALANCE	$ 147,933

Date: May 16, 2019

To: Board of Directors

From: Deputy Treasurer

ITEM 4.A: APPROVE AMENDMENT NO. 1 TO THE SERVICE AGREEMENT WITH ELSINORE VALLEY MUNICIPAL WATER DISTRICT

RECOMMENDATION:

That the Board of Directors:

1. Approve and execute amendment No. 1 to the service agreement with Elsinore Valley Municipal Water District.

DISCUSSION:

At the November 16, 2017 Board Meeting, the Board approved a service agreement with Elsinore Valley Municipal Water District (EVMWD), to provide Administrative and Financial support for tasks such as Board meeting preparations, document retention and related compliance, as well as financial transactions and compliance thereof.

The Insurance provision in Section 2 of the Agreement specifies that EVMWD is to provide Worker's Compensation insurance for its employees. EVMWD is staffed by the Water Employees Services Authority (WESA), and the worker's compensation insurance provided by Joint Powers Insurance Authority (JPIA) is carried under WESA. In order to provide this insurance, Joint Powers Insurance Authority (JPIA)

has requested that the Agreement be amended to clarify that employee services for EVMWD is provided by WESA. No other changes have been made to the agreement.

Staff recommend that the Board approve the amendment to the Service Agreement with EVMWD (Attachment 1).

FISCAL IMPACT:

With a fixed fee amount of $1,000, the total cost of the agreement is $12,000 annually. As provided in the Authority's Joint Powers Authority (JPA) formation agreement, all costs of the Authority shall be shared equally by its three member agencies.

ENVIRONMENTAL REQUIREMENTS:

Not applicable

EXHIBITS/ATTACHMENTS:

Amendment # 1 to the Service Agreement with Elsinore Valley Municipal Water District

AMENDMENT NO. 1 TO THE SERVICE AGREEMENT BETWEEN THE BEDFORD-COLDWATER GROUNDWATER SUSTAINABILITY AUTHORITY AND ELSINORE VALLEY MUNICIPAL WATER DISTRICT

PARTIES AND DATE

This Amendment No. 1 to the Service Agreement between the Bedford-Coldwater Groundwater Sustainability Authority and Elsinore Valley Municipal Water District is effective as of May _____, 2019 by and between the Bedford Coldwater Groundwater Sustainability Authority, a Joint Powers Authority ("BCGSA") and Elsinore Valley Municipal Water District, a municipal water district ("EVMWD"). Authority and EVMWD are sometimes referred to herein as the "Party" or, collectively, the "Parties."

RECITALS

BCGSA and EVMWD have entered into an agreement dated October 1, 2017 for the purpose of providing Administrative, Financial Support and Other Services for BCGSA (the "Service Agreement").

The Parties now desire to amend the Service Agreement to clarify that the employee services for EVMWD is provided by Water Employee Services Authority (WESA).

NOW, THEREFORE, in consideration of the above recitals and the mutual covenants, conditions, and promises contained in the Service Agreement, the Parties mutually agree as follows:

AMENDMENT TERMS

a. Section 2(b) Insurance shall be Section 2(c) Insurance.

b. The following paragraph in new Section 2(c) Insurance:

EVMWD shall also maintain Workers' Compensation Insurance for its employees and agents with limits as prescribed by law.

Is hereby revised to read as follows:

EVMWD employees are staffed by WESA. Therefore, WESA, whose employees are working on behalf of EVMWD, shall maintain Workers' Compensation Insurance for its employees and agents with limits as prescribed by law.

c. Section 2(c) Indemnification shall be Section 2(d) Indemnification.

Except as amended by this Amendment, all other terms, conditions, and provisions of the Service Agreement, including without limitation the indemnity and insurance provisions, shall remain in full force and effect and shall govern the actions of the parties under this Amendment. This Amendment may be signed in counterparts, each of which shall constitute an original.

BEDFORD-COLDWATER GROUNDWATER SUSTAINABILITY AUTHORITY

_____

Paul Rodriguez
Chairman of the Board of Directors

Date: _____

ELSINORE VALLEY MUNICIPAL WATER DISTRICT

_____

Robert Hartwig CPA, MBA
Interim General Manager

Date: _____

Date: May 16, 2019

To: Board of Directors

From: Deputy Treasurer

ITEM 4.B.: ADOPT A RESERVE POLICY

RECOMMENDATION:

That the Board of Directors:

1. Adopt a reserve policy for the Bedford-Coldwater Groundwater Sustainability Authority

DISCUSSION:

Establishment of proper reserves is an integral part of the fiscal health of the Bedford Coldwater Groundwater Sustainability Authority ("Authority"). The purpose of the Reserve Policy ("Policy") is to define reserve funds, their funding sources and allowable uses. The policy will help insure that the Authority has sufficient funds on hand to ensure the payment of operating and non-operating obligations

Attached is the proposed Reserve Policy for the Authority for Board consideration. The policy proposes the establishment of operating and non-operating reserves equal to twenty-five (25) percent of operating and non-operating expenses, respectively. The policy has been reviewed by the member agency staff.

The Deputy Treasurer recommends that the Board adopt the attached Reserve Policy.

FISCAL IMPACT:

Based on the proposed FY 2019-20 budget, the Fiscal impact is If the policy is approved, the Fiscal Impact is $50,000 for the Operating Reserve and $200,000 for the Non-Operating Reserve. These amounts have been reflected in the proposed FY 2019-20 budget.

ENVIRONMENTAL REQUIREMENTS:

Not applicable

EXHIBITS/ATTACHMENTS:

Draft Reserve Policy

RESERVE POLICY

I. PURPOSE

Establishment of proper reserves is an integral part of the fiscal health of the Bedford Coldwater Groundwater Sustainability Authority "Authority". The goal of the Authority's Reserve Policy (the "Policy") is to:

- Define reserve funds, their funding sources and allowable uses; and
- Establish Reserve Funds Targets that provide sufficient funds on hand with the Authority to ensure the payment of operating and non-operating obligations on time;
- Assign authority to the Deputy Treasurer to invoice required contributions and advances from the member agencies to meet the Reserve Fund Targets as established in this Policy.

II. OPERATING RESERVE FUND

Purpose: To establish a permanent reserve that provides sufficient liquidity as working capital to fund operating expenses of the Authority.

Reserve Target: This reserve target is set on the basis of providing for a minimum of three months of budgeted operating expenses and shall generally be calculated at 25% (3 month / 12 months) of the annual budget. It is initially established at a minimum amount of $50,000 and shall be updated every year in the budget review and approval process and may be set at amounts higher than this as approved by the Board of Directors in consideration of special circumstances at that time. Amounts in excess of this reserve target will be included in the annual budget review process for consideration to lower overall member agency operating contributions for the year being budgeted.

Source of Funds: Any necessary replenishment of the Operating Fund Reserve is to be determined and included in the Operating Budget for the following fiscal year, except as otherwise necessary and approved by the Board. A request for an advance of the member agencies' annual operating expense contributions may be necessary during the year if the Deputy Treasurer determines that such an advance is necessary to meet payment obligations of the Authority.

Allowable Uses: Funds from this reserve may be used for payment of operating expenses.

III. NON-OPERATING RESERVE FUND

Purpose: To establish a permanent reserve that provides sufficient liquidity as working capital to fund non-operating expenses of the Authority.

Reserve Target: This reserve target is set on the basis of providing for a minimum of three months of budgeted non-operating expenses and shall generally be calculated at 25% (3 month / 12 months) of the annual budget. It is initially established at a minimum amount of $150,000 and shall be updated every year in the budget review and approval process and may be set at amounts higher than this as approved by the Board of Directors in consideration of special circumstances at that time. Amounts in excess of this reserve target will be included in the annual budget review process for consideration to lower overall member agency non-operating contributions for the year being budgeted.

Source of Funds: Any necessary replenishment of the Non-Operating Fund Reserve is to be determined and included in the Non-Operating Budget for the following fiscal year, except as otherwise necessary and approved by the Board. A request for an advance of the member agencies' annual non-operating expense contributions may be necessary during the year if the Deputy Treasurer determines that such an advance is necessary to meet payment obligations of the Authority.

Allowable Uses: Funds from this reserve may be used for payment of non-operating expenses and may also be used to temporarily advance operating expenses if reserves established for such purposes are insufficient to meet payment obligations.

III. GRANT/LOAN FUNDED PROJECTS

Source of Funds: Additional advances may be requested if funds in excess of those on hand are required to meet capital payment obligations. Advanced cash to be reimbursed by external sources (loans, grants, etc.) will be credited back to the respective member agencies once all the reimbursement amounts are received from the external source.

Allowable Uses: Funds from this reserve may be used for projects that will be reimbursed by external sources, such as with State Revolving Fund (SRF) loans or grants.

IV. ACCOUNTING/RECORD KEEPING

Advances of cash from member agencies will be tracked separately as such to allow proper crediting to the total contributions due from each agency. Reporting to the Board of Directors on the status of the reserves shall be made no less frequently than annually and will typically be included in the analysis provided in the budget review and approval process.

Date: May 16, 2019

To: Board of Directors

From: Deputy Treasurer

ITEM 4.C.: APPOINTMENT OF ACWA/JPIA REPRESENTATIVES

RECOMMENDATION:

That the Board of Directors:

1. Appoint a JPIA Director Representative to attend and participate in any JPIA Board of Directors Meeting; and
2. Appoint a JPIA Alternate Representative to attend and participate in any JPIA Board of Directors Meeting

DISCUSSION:

Being a member of ACWA and joining the JPIA program, BCGSA is required to appoint a Director Representative and Alternate Representative who will have the authority to attend and participate in any meeting of the JPIA Board of Directors. Each position must be a member of the BCGSA Board of Directors.

FISCAL IMPACT:

Not applicable.

ENVIRONMENTAL REQUIREMENTS:

Not applicable

EXHIBITS/ATTACHMENTS:

JPIA Board of Directors – Member/Alternate Form

JPIA Board of Directors - Member/Alternate

An excerpt from the JPIA Agreement:

"Article 7 - Board of Directors"

(a) The Authority shall be governed by the Board of Directors which is hereby established and which shall be composed of one representative from each Member, who shall be a Member director selected by the governing board of that Member. Each Member, in addition to appointing its member of the Board, shall appoint at least one alternate who shall be an officer, member of the governing board, or employee of that Member. The alternate appointed by a Member shall have the authority to attend and participate in any meeting of the Board when the regular member for whom he or she is an alternate is absent from said meeting.

(b) Each Director or alternate of the Board shall serve until a successor is appointed. Each Director or alternate shall serve at the pleasure of the Member by which he or she has been appointed.

(c) Each Director representing a Member, or his or her alternate, shall have one vote.

Please have your agency's Board of Directors designate a JPIA Director Representative and Alternate Representative.

Member Agency: _____

JPIA Director Representative: _____

Must be a member of the agency's board of directors.

Preferred mailing address: _____

_____

E-mail address: _____

Phone number: _____

Assuming office date: _____

JPIA Alternate Representative: _____

Preferred mailing address: _____

_____

E-mail address: _____

Phone number: _____

Please mail form to: Attn: Bobbette Wells, ACWA/JPIA, PO Box 619082, Roseville, CA 95661-9082

or FAX to: (916) 774-7040

Date: May 16, 2019

To: Board of Directors

From: Deputy Treasurer

ITEM 4.D.: ADOPTION OF PROPOSED FISCAL YEAR 2019-20 BUDGET

RECOMMENDATION:

That the Board of Directors:

1. Adopt the BCGSA FY 2019-20 Budget.

DISCUSSION:

The proposed budget information attached will be reviewed in detail at the meeting.

FISCAL IMPACT:

Established in the attached proposed Budget.

ENVIRONMENTAL REQUIREMENTS:

Not applicable

EXHIBITS/ATTACHMENTS:

Draft FY 2019-20 Budget

Bedford-Coldwater Groundwater Sustainability Authority
Proposed FY 2020 Budget

	Proposed	Projected				
	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	5 Yr Total
Operating Budget						
GSP Administrator	$166,000	$150,000	$150,000	$100,000	$100,000	$ 666,000
JPA Administrator	12,000	12,000	12,000	12,000	12,000	60,000
Website Domain & Software	1,500	1,500	1,500	1,500	1,500	7,500
SharePoint Document Management	5,000	5,000	6,000	6,000	6,000	28,000
Website Content Design and Maintenance	5,500	6,000	6,000	2,000	2,000	21,500
Legal Counsel	6,200	6,400	6,600	6,800	7,100	33,100
Auditor	7,000	7,300	7,600	7,900	8,200	38,000
Insurance	4,400	4,600	4,800	5,000	5,200	24,000
Bank Fees	2,000	2,100	2,200	2,300	2,400	11,000
Operating Reserve (25%)	52,400	(2,400)	-	-	-	50,000
Total Operating Budget	**262,000**	**192,500**	**196,700**	**143,500**	**144,400**	**$ 939,100**
Non-Operating Budget						
(1) GSP Development & Preparation						
Matching Local Share	500,000	300,000				800,000
(2) Grant Funded	300,000	600,000	100,000			1,000,000
(3) GSP Implementation		250,000	750,000	750,000	750,000	2,500,000
Non-Operating Reserve (25%)	200,000	87,500	(75,000)	(25,000)	-	187,500
Total Non-Operating Budget	1,000,000	1,237,500	775,000	725,000	750,000	$ 4,300,000
Total Non-Operating Budget	**$ 1,262,000**	**$ 1,430,000**	**$ 971,700**	**$ 868,500**	**$ 894,400**	**$ 5,239,100**
Total Budget	**$ 1,524,000**	**$ 1,622,500**	**$ 1,168,400**	**$ 1,012,000**	**$ 1,038,800**	**$ 6,365,700**

(1) GSP Development & Preparation
- Description of Plan area and maps showing the area covered by the plan, jurisdictional boundaries of federal and tribal lands, entities with water management responsibilities.
- Review density of existing wells and existing monitoring and management programs and summarize programs that will be incorporated into the GSP
- Based on the evaluation of above tasks, identify the need and potential locations of new monitoring wells.
- Develop hydrogeologic conceptual model, including water budget, maps, land use, aquifer parameters, management areas, and groundwater conditions
- Coordinate with stakeholders to select locations that will be most beneficial to the development of basin characterization, future groundwater model and GSP

(2) Grant Funded
- Grant funded portion of the project is reimbursed after matching local cost share is fully spent (by task)

(3) GSP Implementation
- This amount is a placeholder for the projects that may be implemented, including construction and land acquisition costs for production wells, monitoring wells, and/or surface water gaging stations. These high-level estimates will become more refined as the GSP components progresses.

Bedford-Coldwater Groundwater Sustainability Authority
Proposed FY 2020 Member Contribution

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	5 Yr Total
Revenue						
Grant Reimbursement	$300,000	$600,000	$100,000	$0	$0	$1,000,000
Member Contribution Carryover	114,835	-	-	-	-	114,835
Interest Income	500	500	500	500	500	2,500
Total Revenue	$ 415,335	$ 600,500	$ 100,500	$ 500	$ 500	$ 1,117,335
Total Budget	$ 1,524,000	$ 1,619,950	$ 1,169,300	$ 985,400	$ 1,039,250	$ 6,337,900
Total Member Contribution	$ 1,108,665	$ 1,019,450	$ 1,068,800	$ 984,900	$ 1,038,750	$ 5,220,565
Member Contribution per Agency	**$ 369,555**	**$ 339,817**	**$ 356,267**	**$ 328,300**	**$ 346,250**	**$ 1,740,188**

Date: May 16, 2019

To: Board of Directors

From: Deputy Treasurer

ITEM 4.E.: APPROVAL OF PROFESSIONAL SERVICES AGREEMENT FOR THE DEVELOPMENT OF A GROUNDSWATER SUSTAINABILITY PLAN

RECOMMENDATION:

That the Board of Directors:

1. Approve a Professional Services Agreement for the development of a Groundwater Sustainability Plan

DISCUSSION:

The BCGSA member agency staff has evaluated needs for producing a Groundwater Sustainability Plan (GSP) as required by state regulations. Recently, Todd Groundwater completed an evaluation of existing data pertaining to an eventual GSP. The next step is to retain a qualified consultant to develop and prepare the GSP in accordance with both state guidelines for GSPs, and the recently awarded state grant. A request for proposals was written by the GSA Administrator, reviewed by BCGSA member agency staff, and released via PlanetBids on April 19, 2019 with a proposal due date of April 30, 2019. In addition, 13 firms considered qualified were notified of the RFP and invited to propose on the project via email.

Two proposals were received, one from Wildermuth Environmental Inc. (teamed with West Yost Associates), and one from Todd Engineers. Both proposals

were compliant with RFP guidelines and both teams are considered qualified. The BCGSA member agency staff compared the proposals based on the following criteria:

Relevant qualifications /experience	25%
Project understanding and approach	30%
Scope of work and schedule	25%
Cost	10%
Overall quality of proposal	10%

Both firms agreed to the draft Professional Service Agreement (PSA) without deviation. Additional information and recommendation will be provided at the meeting.

FISCAL IMPACT:

The cost of the development of the GSP has been incorporated in the proposed FY 2020 and projected FY 2021 budget.

ENVIRONMENTAL REQUIREMENTS:

Not applicable

EXHIBITS/ATTACHMENTS:

Draft Professional Services Agreement
Proposals (2)

BEDFORD-COLDWATER GROUNDWATER SUSTAINABILITY AUTHORITY
PROFESSIONAL SERVICES AGREEMENT

1. PARTIES AND DATE.

This Agreement is made and entered into this ____day of May, 2019 by and between the Bedford-Coldwater Groundwater Sustainability Authority, a Groundwater Sustainability Agency with its principal place of business at 22646 Temescal Canyon Road, Corona, CA 92883 ("Authority") and_____, a Corporation with its principal place of business at ("Consultant"). Authority and Consultant are sometimes individually referred to as "Party" and collectively as "Parties" in this Agreement.

2. RECITALS.

2.1 Consultant.

Consultant desires to perform and assume responsibility for the provision of certain professional services required by the Authority on the terms and conditions set forth in this Agreement. Consultant represents that it is experienced in the development of Groundwater Sustainability Plans (GSP) services to public clients, is licensed in the State of California, and is familiar with the plans of Authority.

3. TERMS.

3.1 Scope and Schedule of Services.

3.1.1 General Scope of Services. Consultant promises and agrees to furnish to the Authority all labor, materials, tools, equipment, services, and incidental and customary work necessary to fully and adequately supply the professional development of a Groundwater Sustainability Plan (GSP) consulting services necessary for the Project ("Services"). The Services are more particularly described in Exhibit "A" attached hereto and incorporated herein by reference. All Services shall be subject to, and performed in accordance with, this Agreement, the exhibits attached hereto and incorporated herein by reference, and all applicable local, state and federal laws, rules, and regulations.

3.1.2 Term. The term of this Agreement shall be from June 1, 2019 to December 31, 2020, unless earlier terminated as provided herein. Consultant shall complete the Services within the term of this Agreement and shall meet any other established schedules and deadlines. The Parties may, by mutual, written consent, extend the term of this Agreement if necessary, to complete the Services.

3.1.3 Schedule of Services. Consultant shall perform the Services expeditiously, within the term of this Agreement, and in accordance with the Schedule of Services set forth in Exhibit "B" attached hereto and incorporated herein by reference. Consultant represents that it has the professional and technical personnel required to perform the Services in conformance with such conditions. In order to facilitate Consultant's conformance with the Schedule, Authority shall respond to Consultant's submittals in a timely manner. Upon request

of Authority, Consultant shall provide a more detailed schedule of anticipated performance to meet the Schedule of Services.

3.2 Fees and Payments.

3.2.1 Compensation. Consultant shall receive compensation, including authorized reimbursements, for all Services rendered under this Agreement at the rates set forth in Exhibit "C" attached hereto and incorporated herein by reference. The total compensation shall not exceed _____ ($_____) without written approval by Authority. Extra Work may be authorized, as described below, and if authorized, will be compensated at the rates and manner set forth in this Agreement.

3.2.2 Payment. Consultant shall submit to Authority a monthly itemized statement which indicates work completed and hours of Services rendered by Consultant. The statement shall describe the Services and supplies provided since the initial commencement date, or since the start of the subsequent billing periods, as appropriate, through the date of the statement. Authority shall, within 45 days of receiving such statement, review the statement and pay all approved charges thereon.

3.2.3 Reimbursement for Expenses. Consultant shall not be reimbursed for any expenses unless authorized in writing by Authority.

3.2.4 Extra Work. At any time during the term of this Agreement, Authority may request that Consultant perform Extra Work. As used herein, "Extra Work" means any work which is determined by Authority to be necessary for the proper completion of the Project, but which the parties did not reasonably anticipate would be necessary at the execution of this Agreement. Consultant shall not perform, nor be compensated for, Extra Work without written authorization by Authority.

3.3 Responsibilities of Consultant.

3.3.1 Control and Payment of Subordinates; Independent Contractor. The Services shall be performed by Consultant or under its supervision. Consultant will determine the means, methods and details of performing the Services subject to the requirements of this Agreement. Authority retains Consultant on an independent contractor basis and not as an employee. Consultant retains the right to perform similar or different services for others during the term of this Agreement. Any additional personnel performing the Services under this Agreement on behalf of Consultant shall also not be employees of Authority and shall at all times be under Consultant's exclusive direction and control. Consultant shall pay all wages, salaries, and other amounts due such personnel in connection with their performance of Services under this Agreement and as required by law. Consultant shall be responsible for all reports and obligations respecting such additional personnel, including, but not limited to: social security taxes, income tax withholding, unemployment insurance, disability insurance, and workers' compensation insurance.

3.3.2 Standard of Care; Performance of Employees. Consultant shall perform all Services under this Agreement in a skillful and competent manner, consistent with the standards generally recognized as being employed by professionals in the same discipline in the State of California. Consultant represents and maintains that it is skilled in the professional calling necessary to perform the Services. Consultant warrants that all employees and subconsultants

shall have sufficient skill and experience to perform the Services assigned to them. Finally, Consultant represents that it, its employees and subconsultants have all licenses, permits, qualifications and approvals of whatever nature that are legally required to perform the Services, and that such licenses and approvals shall be maintained throughout the term of this Agreement. As provided for in the indemnification provisions of this Agreement, Consultant shall perform, at its own cost and expense and without reimbursement from the Authority, any services necessary to correct errors or omissions which are caused by the Consultant's failure to comply with the standard of care provided for herein. Any employee of the Consultant or its sub-consultants who is determined by the Authority to be uncooperative, incompetent, a threat to the adequate or timely completion of the Project, a threat to the safety of persons or property, or any employee who fails or refuses to perform the Services in a manner acceptable to the Authority, shall be promptly removed from the Project by the Consultant and shall not be re-employed to perform any of the Services or to work on the Project.

3.3.3 Conformance to Applicable Requirements. All work prepared by Consultant shall be subject to the approval of Authority.

3.3.4 Substitution of Key Personnel. Consultant has represented to Authority that certain key personnel will perform and coordinate the Services under this Agreement. Should one or more of such personnel become unavailable, Consultant may substitute other personnel of at least equal competence upon written approval of Authority. In the event that Authority and Consultant cannot agree as to the substitution of key personnel, Authority shall be entitled to terminate this Agreement for cause. As discussed below, any personnel who fail or refuse to perform the Services in a manner acceptable to the Authority, or who are determined by the Authority to be uncooperative, incompetent, a threat to the adequate or timely completion of the Project or a threat to the safety of persons or property, shall be promptly removed from the Project by the Consultant at the request of the Authority. The key personnel for performance of this Agreement are as follows: _____.

3.3.5 Coordination of Services. Consultant agrees to work closely with Authority staff in the performance of Services and shall be available to Authority's staff, consultants and other staff at all reasonable times.

3.3.6 Laws and Regulations. Consultant shall keep itself fully informed of and in compliance with all local, state and federal laws, rules and regulations in any manner affecting the performance of the Project or the Services, including all Cal/OSHA requirements, and shall give all notices required by law. Consultant shall be liable for all violations of such laws and regulations in connection with Services. If the Consultant performs any work knowing it to be contrary to such laws, rules and regulations, Consultant shall be solely responsible for all costs arising therefrom. Consultant shall defend, indemnify and hold Authority, its officials, directors, officers, employees, and agents free and harmless, pursuant to the indemnification provisions of this Agreement, from any claim or liability arising out of any failure or alleged failure to comply with such laws, rules or regulations.

3.3.7 Labor Code Provisions.

(a) Prevailing Wages. Consultant is aware of the requirements of California Labor Code Section 1720, et seq., and 1770, et seq., as well as California Code of Regulations, Title 8, Section 16000, et seq., ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on "public works" and

"maintenance" projects. If the Services are being performed as part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and if the total compensation is $1,000 or more, Consultant agrees to fully comply with such Prevailing Wage Laws. The Authority has obtained the general prevailing rate of wages, as determined by the Director of the Department of Industrial Relations, a copy of which is on file in the Authority's office and shall be made available for viewing to any interested party upon request. Consultant shall make copies of the prevailing rates of per diem wages for each craft, classification or type of worker needed to execute the Services available to interested parties upon request and shall post copies at the Consultant's principal place of business and at the project site. Consultant shall defend, indemnify and hold the Authority, its elected officials, officers, employees and agents free and harmless from any claim or liability arising out of any failure or alleged failure to comply with the Prevailing Wage Laws.

(b) Registration and Labor Compliance. If the services are being performed as part of an applicable "public works" or "maintenance" project, then, in addition to the foregoing, pursuant to Labor Code sections 1725.5 and 1771.1, the Consultant and all subconsultants must be registered with the Department of Industrial Relations ("DIR"). Consultant shall maintain registration for the duration of the project and require the same of any subconsultants. This project may also be subject to compliance monitoring and enforcement by the Department of Industrial Relations. It shall be Consultant's sole responsibility to comply with all applicable registration and labor compliance requirements, including the submission of payroll records directly to the DIR.

(c) Labor Certification. By its signature hereunder, Consultant certifies that it is aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for Worker's Compensation or to undertake self-insurance in accordance with the provisions of that Code and agrees to comply with such provisions before commencing the performance of the Services.

3.3.8 Safety. Consultant shall execute and maintain its work so as to avoid injury or damage to any person or property. In carrying out its Services, the Consultant shall at all times be in compliance with all applicable local, state and federal laws, rules and regulations, and shall exercise all necessary precautions for the safety of employees appropriate to the nature of the work and the conditions under which the work is to be performed. Safety precautions as applicable shall include, but shall not be limited to: (A) adequate life protection and life-saving equipment and procedures; (B) instructions in accident prevention for all employees and subconsultants, such as safe walkways, scaffolds, fall protection ladders, bridges, gang planks, confined space procedures, trenching and shoring, equipment and other safety devices, equipment and wearing apparel as are necessary or lawfully required to prevent accidents or injuries; and (C) adequate facilities for the proper inspection and maintenance of all safety measures.

3.3.9 Accounting Records. Consultant shall maintain complete and accurate records with respect to all costs and expenses incurred under this Agreement. All such records shall be clearly identifiable. Consultant shall allow a representative of Authority during normal business hours to examine, audit, and make transcripts or copies of such records and any other documents created pursuant to this Agreement. Consultant shall allow inspection of all work, data, documents, proceedings, and activities related to the Agreement for a period of four (4) years from the date of final payment under this Agreement.

3.3.10 Air Quality. To the extent applicable, Consultant must fully comply with all applicable laws, rules and regulations in furnishing or using equipment and/or providing services, including, but not limited to, emissions limits and permitting requirements imposed by the South Coast Air Quality Management District (SCAQMD) and/or California Air Resources Board (CARB). Although the SCAQMD and CARB limits and requirements are more broad, Consultant shall specifically be aware of their application to "portable equipment", which definition is considered by SCAQMD and CARB to include any item of equipment with a fuel-powered engine. Consultant shall indemnify Authority against any fines or penalties imposed by SCAQMD, CARB, or any other governmental or regulatory agency for violations of applicable laws, rules and/or regulations by Consultant, its subconsultants, or others for whom Consultant is responsible under its indemnity obligations provided for in this Agreement.

3.4 Representatives of the Parties.

3.4.1 Authority's Representative. The Authority hereby designates its Deputy Treasurer, Margie Armstrong, or his or her designee, to act as its representative for the performance of this Agreement ("Authority's Representative"). Consultant shall not accept direction or orders from any person other than the Authority's Representative or his or her designee.

3.4.2 Consultant's Representative. Consultant hereby designates _____, or his or her designee, to act as its representative for the performance of this Agreement ("Consultant's Representative"). Consultant's Representative shall have full authority to represent and act on behalf of the Consultant for all purposes under this Agreement. The Consultant's Representative shall supervise and direct the Services, using his best skill and attention, and shall be responsible for all means, methods, techniques, sequences, and procedures and for the satisfactory coordination of all portions of the Services under this Agreement.

3.5 Indemnification.

To the fullest extent permitted by law, Consultant shall immediately indemnify and hold the Authority, its directors, officials, officers, employees, volunteers and agents free and harmless from any and all claims, demands, causes of action, costs, expenses, liability, loss, damage or injury of any kind, in law or equity, to property or persons, including wrongful death, in any manner arising out of, pertaining to, or incident to any alleged acts, errors or omissions of Consultant, its officials, officers, employees, subcontractors, consultants or agents in connection with the performance of the Consultant's Services, the Project or this Agreement, including without limitation the payment of all consequential damages, expert witness fees and attorneys' fees and other related costs and expenses. Notwithstanding the foregoing, to the extent Consultant's Services are subject to Civil Code Section 2782.8, the above indemnity shall be limited, to the extent required by Civil Code Section 2782.8, to claims that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant.

Consultant shall immediately defend, with Counsel of Authority's choosing and at Consultant's own cost, expense and risk, any and all claims, suits, actions or other proceedings of every kind that may be brought or instituted against Authority or its directors, officials, officers, employees, volunteers and agents. Consultant shall pay and satisfy any judgment, award or decree that may be rendered against Authority or its directors, officials, officers, employees, volunteers and agents as part of any such claim, suit, action or other proceeding. Consultant

shall also reimburse Authority for the cost of any settlement paid by Authority or its directors, officials, officers, employees, agents or volunteers as part of any such claim, suit, action or other proceeding. Such reimbursement shall include payment for Authority's attorneys' fees and costs, including expert witness fees. Consultant shall reimburse Authority and its directors, officials, officers, employees, agents, and/or volunteers, for any and all legal expenses and costs incurred by each of them in connection therewith or in enforcing the indemnity herein provided. Consultant's obligation to indemnify shall survive expiration or termination of this Agreement, and shall not be restricted to insurance proceeds, if any, received by the Authority, its directors, officials, officers, employees, agents, or volunteers.

3.6 Insurance.

3.6.1 Time for Compliance. Consultant shall not commence Work under this Agreement until it has provided evidence satisfactory to the Authority that it has secured all insurance required under this section. In addition, Consultant shall not allow any subconsultant to commence work on any subcontract until it has provided evidence satisfactory to the Authority that the subconsultant has secured all insurance required under this section. Failure to provide and maintain all required insurance shall be grounds for the Authority to terminate this Agreement for cause.

3.6.2 Minimum Requirements. Consultant shall, at its expense, procure and maintain for the duration of the Agreement insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the Agreement by the Consultant, its agents, representatives, employees or subconsultants. Consultant shall also require all of its subconsultants to procure and maintain the same insurance for the duration of the Agreement. Such insurance shall meet at least the following minimum levels of coverage:

(a) Commercial General Liability. Coverage for commercial general liability insurance shall be at least as broad as Insurance Services Office (ISO) Commercial General Liability Coverage (Occurrence Form CG 0001). Consultant shall maintain limits no less than $2,000,000 per occurrence, or the full per occurrence limits of the policies available, whichever is greater, for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with general aggregate limit or product-completed operations aggregate limit is used, including but not limited to form CG 2503, either the general aggregate limit shall apply separately to this Agreement/location or the general aggregate limit shall be twice the required occurrence limit. The general liability policy shall include or be endorsed (amended) to state that: (1) the Authority, its directors, officials, officers, employees, agents, and volunteers shall be covered as additional insured with respect to the Work or operations performed by or on behalf of the Consultant, including materials, parts or equipment furnished in connection with such work using as broad a form as CG 20 10 11 85 or the latest versions of both CG 20 10 and CG 20 37; and (2) the insurance coverage shall be primary insurance as respects the Authority, its directors, officials, officers, employees, agents, and volunteers using as broad a form as CG 20 01 04 13, or if excess, shall stand in an unbroken chain of coverage excess of the Consultant's scheduled underlying coverage. Any insurance or self-insurance maintained by the Authority, its directors, officials, officers, employees, agents, and volunteers shall be excess of the Consultant's insurance and shall not be called upon to contribute with it in any way.

(b) Automobile Liability. Coverage shall be at least as broad as the latest version of the Insurance Services Office Business Auto Coverage form number CA 0001, code 1 (any auto). Consultant shall maintain limits no less than $1,000,000 per accident for bodily injury and property damage. The automobile liability policy shall include or be endorsed (amended) to state that: (1) the Authority, its directors, officials, officers, employees, agents, and volunteers shall be covered as additional insureds with respect to the ownership, operation, maintenance, use, loading or unloading of any auto owned, leased, hired or borrowed by the Consultant or for which the Consultant is responsible; and (2) the insurance coverage shall be primary insurance as respects the Authority, its directors, officials, officers, employees, agents, and volunteers, or if excess, shall stand in an unbroken chain of coverage excess of the Consultant's scheduled underlying coverage. Any insurance or self-insurance maintained by the Authority, its directors, officials, officers, employees, agents, and volunteers shall be excess of the Consultant's insurance and shall not be called upon to contribute with it in any way. The automobile liability policy shall cover all owned, non-owned, and hired automobiles.

(c) Workers' Compensation and Employer's Liability Insurance. Consultant shall maintain Workers' Compensation insurance as required by the State of California and Employer's Liability Insurance in an amount no less than $1,000,000 per accident for bodily injury or disease. The insurer shall agree to waive all rights of subrogation against the Authority, its directors, officials, officers, employees, agents, and volunteers for losses paid under the terms of the insurance policy which arise from work performed by the Consultant.

(d) Professional Liability. Consultant shall procure and maintain, and require its subconsultants to procure and maintain, for a period of five (5) years following completion of the Project, errors and omissions liability insurance appropriate to their profession covering Consultant's wrongful acts, negligent actions, errors or omissions. The retroactive date (if any) is to be no later than the effective date of this agreement. Consultant shall purchase a one-year extended reporting period: i) if the retroactive date is advanced past the effective date of this Agreement; ii) if the policy is canceled or not renewed; or iii) if the policy is replaced by another claims-made policy with a retroactive date subsequent to the effective date of this Agreement. Such insurance shall be in an amount not less than $2,000,000 per claim.

(e) Excess Liability (if necessary). The limits of Insurance required in this Agreement may be satisfied by a combination of primary and umbrella or excess insurance. Any umbrella or excess coverage shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and non-contributory basis for the benefit of the Authority (if agreed to in a written contract or agreement) before the Authority's own primary or self-Insurance shall be called upon to protect it as a named insured. The policy shall be endorsed to state that the Authority, its directors, officials, officers, employees, agents, and volunteers shall be covered as additional insured at least as broad a form as CG 20 10 11 85 or the latest versions of both CG 20 10 and CG 20 37. The coverage shall contain no special limitations on the scope of protection afforded to the Authority, its directors, officials, officers, employees, agents, and volunteers.

(f) All Coverages. The Consultant is required by this Agreement to state that: (i) coverage shall not be suspended, voided, reduced or canceled except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the Authority; If any of the required coverages expire or cancel during the term of this agreement, the Consultant shall deliver the renewal certificate(s) including the general liability additional insured endorsement to Authority at least ten (10) days prior to the cancellation or expiration date. and (ii)

any failure to comply with reporting or other provisions of the policies, including breaches of warranties, shall not affect coverage provided to the Authority, its directors, officials, officers, employees, agents, and volunteers.

(g) Separation of Insureds; No Special Limitations. All insurance required by this Section shall contain standard separation of insureds provisions. In addition, such insurance shall not contain any special limitations on the scope of protection afforded to the Authority, its directors, officials, officers, employees, agents, and volunteers.

(h) Deductibles and Self-Insurance Retentions. Any deductibles or self-insured retentions must be declared to and approved by the Authority. Consultant shall guarantee that, at the option of the Authority, either: (i) the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the Authority, its directors, officials, officers, employees, agents, and volunteers; and insurer shall provide or be endorsed to provide that the deductibles or SIR may be satisfied by either the named or additional insureds, co-insurers, and/or insureds other than the First Named Insured or (ii) the Consultant shall procure a bond guaranteeing payment of losses and related investigation costs, claims, and administrative and defense expenses.

3.6.3 Acceptability of Insurers. Insurance is to be placed with insurers with a current A.M. Best's rating no less than A-:VII or equivalent, or as otherwise approved by the Authority.

3.6.4 Verification of Coverage. Consultant shall furnish the Authority with original certificates of insurance and endorsements effecting coverage required by this Agreement on forms satisfactory to the Authority. The certificates and endorsements for each insurance policy shall be signed by a person authorized by that insurer to bind coverage on its behalf and shall be on forms provided by the Authority if requested. All certificates and endorsements must be received and approved by the Authority before work commences. The Authority reserves the right to require complete, certified copies of all required insurance policies, at any time. In the event that the Consultant employs other consultants (sub-consultants) as part of the services covered by this agreement, it shall be the Consultant's responsibility to require and confirm that each sub-consultant meets the minimum insurance requirements specified above.

3.6.5 Reporting of Claims. Consultant shall report to the Authority, in addition to Consultant's insurer, any and all insurance claims submitted by Consultant in connection with the Services under this Agreement.

3.7 Termination of Agreement.

3.7.1 Grounds for Termination. Authority may, by written notice to Consultant, terminate the whole or any part of this Agreement at any time and without cause by giving written notice to Consultant of such termination, and specifying the effective date thereof, at least seven (7) days before the effective date of such termination. Upon termination, Consultant shall be compensated only for those services which have been adequately rendered to Authority, and Consultant shall be entitled to no further compensation. Consultant may not terminate this Agreement except for cause.

3.7.2 Effect of Termination. If this Agreement is terminated as provided herein, Authority may require Consultant to provide all finished or unfinished Documents and Data and

other information of any kind prepared by Consultant in connection with the performance of Services under this Agreement. Consultant shall be required to provide such document and other information within fifteen (15) days of the request.

3.7.3 Additional Services. In the event this Agreement is terminated in whole or in part as provided herein, Authority may procure, upon such terms and in such manner as it may determine appropriate, services similar to those terminated.

3.8 Ownership of Materials and Confidentiality.

3.8.1 Documents & Data; Licensing of Intellectual Property. This Agreement creates a non-exclusive and perpetual license for Authority to copy, use, modify, reuse, or sublicense any and all copyrights, designs, and other intellectual property embodied in plans, specifications, studies, drawings, estimates, and other documents or works of authorship fixed in any tangible medium of expression, including but not limited to, physical drawings or data magnetically or otherwise recorded on computer diskettes, which are prepared or caused to be prepared by Consultant under this Agreement ("Documents & Data"). All Documents & Data shall be and remain the property of Authority and shall not be used in whole or in substantial part by Consultant on other projects without the Authority's express written permission. Within thirty (30) days following the completion, suspension, abandonment or termination of this Agreement, Consultant shall provide to Authority reproducible copies of all Documents & Data, in a form and amount required by Authority. Authority reserves the right to select the method of document reproduction and to establish where the reproduction will be accomplished. The reproduction expense shall be borne by Authority at the actual cost of duplication. In the event of a dispute regarding the amount of compensation to which the Consultant is entitled under the termination provisions of this Agreement, Consultant shall provide all Documents & Data to Authority upon payment of the undisputed amount. Consultant shall have no right to retain or fail to provide to Authority any such documents pending resolution of the dispute. In addition, Consultant shall retain copies of all Documents & Data on file for a minimum of fifteen (15) years following completion of the Project and shall make copies available to Authority upon the payment of actual reasonable duplication costs. Before destroying the Documents & Data following this retention period, Consultant shall make a reasonable effort to notify Authority and provide Authority with the opportunity to obtain the documents.

3.8.2 Subconsultants. Consultant shall require all subconsultants to agree in writing that Authority is granted a non-exclusive and perpetual license for any Documents & Data the subconsultant prepares under this Agreement. Consultant represents and warrants that Consultant has the legal right to license any and all Documents & Data. Consultant makes no such representation and warranty in regard to Documents & Data which were prepared by design professionals other than Consultant or its subconsultants, or those provided to Consultant by the Authority.

3.8.3 Right to Use. Authority shall not be limited in any way in its use or reuse of the Documents and Data or any part of them at any time for purposes of this Project or another project, provided that any such use not within the purposes intended by this Agreement or on a project other than this Project without employing the services of Consultant shall be at Authority's sole risk. If Authority uses or reuses the Documents & Data on any project other than this Project, it shall remove the Consultant's seal from the Documents & Data and indemnify and hold harmless Consultant and its officers, directors, agents and employees from claims arising out of the negligent use or re-use of the Documents & Data on such other project. Consultant shall be

responsible and liable for its Documents & Data, pursuant to the terms of this Agreement, only with respect to the condition of the Documents & Data at the time they are provided to the Authority upon completion, suspension, abandonment or termination. Consultant shall not be responsible or liable for any revisions to the Documents & Data made by any party other than Consultant, a party for whom the Consultant is legally responsible or liable, or anyone approved by the Consultant.

3.8.4 Indemnification. Consultant shall defend, indemnify and hold the Authority, its directors, officials, officers, employees, volunteers and agents free and harmless, pursuant to the indemnification provisions of this Agreement, for any alleged infringement of any patent, copyright, trade secret, trade name, trademark, or any other proprietary right of any person or entity in consequence of the use on the Project by Authority of the Documents & Data, including any method, process, product, or concept specified or depicted.

3.8.5 Confidentiality. All Documents & Data, either created by or provided to Consultant in connection with the performance of this Agreement, shall be held confidential by Consultant. All Documents & Data shall not, without the prior written consent of Authority, be used or reproduced by Consultant for any purposes other than the performance of the Services. Consultant shall not disclose, cause or facilitate the disclosure of the Documents & Data to any person or entity not connected with the performance of the Services or the Project. Nothing furnished to Consultant that is otherwise known to Consultant or is generally known, or has become known, to the related industry shall be deemed confidential. Consultant shall not use Authority's name or insignia, photographs of the Project, or any publicity pertaining to the Services or the Project in any magazine, trade paper, newspaper, television or radio production or other similar medium without the prior written consent of Authority.

3.9 Subcontracting/Subconsulting.

3.9.1 Prior Approval Required. Consultant shall not subcontract any portion of the work required by this Agreement, except as expressly stated herein, without prior written approval of Authority. Subcontracts, if any, shall contain a provision making them subject to all provisions stipulated in this Agreement.

3.10 General Provisions.

3.10.1 Delivery of Notices. All notices permitted or required under this Agreement shall be given to the respective parties at the following address, or at such other address as the respective parties may provide in writing for this purpose:

AUTHORITY:	**CONSULTANT:**
Bedford-Coldwater Groundwater Sustainability Authority 22646 Temescal Canyon Road Corona, CA 92883 Attn: Margie Armstrong	_____ _____ Attn: _____

Such notice shall be deemed made when personally delivered or when mailed, forty-eight (48) hours after deposit in the U.S. Mail, first class postage prepaid and addressed to the party at its applicable address. Actual notice shall be deemed adequate notice on the date actual notice occurred, regardless of the method of service.

3.10.2 Equal Opportunity Employment. Consultant represents that it is an equal opportunity employer and it shall not discriminate against any subconsultant, employee or applicant for employment because of race, religion, color, national origin, handicap, ancestry, sex or age. Such non-discrimination shall include, but not be limited to, all activities related to initial employment, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff or termination. Consultant shall also comply with all relevant provisions of Authority's Minority Business Enterprise program, Affirmative Action Plan or other related programs or guidelines currently in effect or hereinafter enacted.

3.10.3 Time of Essence. Time is of the essence for each and every provision of this Agreement.

3.10.4 Authority's Right to Employ Other Consultants. Authority reserves right to employ other consultants in connection with this Project.

3.10.5 Successors and Assigns. This Agreement shall be binding on the successors and assigns of the parties.

3.10.6 Assignment or Transfer. Consultant shall not assign, hypothecate or transfer, either directly or by operation of law, this Agreement or any interest herein without the prior written consent of the Authority. Any attempt to do so shall be null and void, and any assignees, hypothecates or transferees shall acquire no right or interest by reason of such attempted assignment, hypothecation or transfer.

3.10.7 Construction; References; Captions. Since the Parties or their agents have participated fully in the preparation of this Agreement, the language of this Agreement shall be construed simply, according to its fair meaning, and not strictly for or against any Party. Any term referencing time, days or period for performance shall be deemed calendar days and not work days. All references to Consultant include all personnel, employees, agents, and subconsultants of Consultant, except as otherwise specified in this Agreement. All references to Authority include its elected officials, officers, employees, agents, and volunteers except as otherwise specified in this Agreement. The captions of the various articles and paragraphs are for convenience and ease of reference only, and do not define, limit, augment, or describe the scope, content or intent of this Agreement.

3.10.8 Amendment; Modification. No supplement, modification or amendment of this Agreement shall be binding unless executed in writing and signed by both Parties.

3.10.9 Waiver. No waiver of any default shall constitute a waiver of any other default or breach, whether of the same or other covenant or condition. No waiver, benefit, privilege, or service voluntarily given or performed by a Party shall give the other Party any contractual rights by custom, estoppel or otherwise.

3.10.10 No Third-Party Beneficiaries. There are no intended third-party beneficiaries of any right or obligation assumed by the Parties. Invalidity; Severability. If any portion of this Agreement is declared invalid, illegal, or otherwise unenforceable by a court of competent jurisdiction, the remaining provisions shall continue in full force and effect.

3.10.11 Prohibited Interests. Consultant maintains and warrants that it has not employed nor retained any company or person, other than a bona fide employee working solely for Consultant, to solicit or secure this Agreement. Further, Consultant warrants that it has not

paid nor has it agreed to pay any company or person, other than a bona fide employee working solely for Consultant, any fee, commission, percentage, brokerage fee, gift or other consideration contingent upon or resulting from the award or making of this Agreement. Consultant further agrees to file, or shall cause its employees or subconsultants to file, a Statement of Economic Interest with the Authority's Filing Officer as required under state law in the performance of the Services. For breach or violation of this warranty, Authority shall have the right to rescind this Agreement without liability. For the term of this Agreement, no member, officer or employee of Authority, during the term of his or her service with Authority, shall have any direct interest in this Agreement, or obtain any present or anticipated material benefit arising therefrom.

3.10.12 Cooperation; Further Acts. The Parties shall fully cooperate with one another and shall take any additional acts or sign any additional documents as may be necessary, appropriate or convenient to attain the purposes of this Agreement.

3.10.13 Governing Law. This Agreement shall be governed by the laws of the State of California. Venue shall be in Riverside County.

3.10.14 Government Code Claim Compliance. In addition to any and all contract requirements pertaining to notices of and requests for compensation or payment for extra work, disputed work, claims and/or changed conditions, Consultant must comply with the claim procedures set forth in Government Code sections 900 et seq. prior to filing any lawsuit against the Authority. Such Government Code claims and any subsequent lawsuit based upon the Government Code claims shall be limited to those matters that remain unresolved after all procedures pertaining to extra work, disputed work, claims, and/or changed conditions have been followed by Consultant. If no such Government Code claim is submitted, or if any prerequisite contractual requirements are not otherwise satisfied as specified herein, Consultant shall be barred from bringing and maintaining a valid lawsuit against the Authority.

3.10.15 Attorneys' Fees. If either party commences an action against the other party, either legal, administrative or otherwise, arising out of or in connection with this Agreement, the prevailing party in such litigation shall be entitled to have and recover from the losing party reasonable attorneys' fees and all other costs of such action.

3.10.16 Authority to Enter Agreement. Consultant has all requisite power and authority to conduct its business and to execute, deliver, and perform the Agreement. Each Party warrants that the individuals who have signed this Agreement have the legal power, right, and authority to make this Agreement and bind each respective Party.

3.10.17 Counterparts. This Agreement may be signed in counterparts, each of which shall constitute an original.

3.10.18 Entire Agreement. This Agreement contains the entire Agreement of the parties with respect to the subject matter hereof, and supersedes all prior negotiations, understandings or agreements. This Agreement may only be modified by a writing signed by both parties.

***SIGNATURES ON THE FOLLOWING PAGE**

SIGNATURE PAGE 1 OF 2 TO THE PROFESSIONAL SERVICES AGREEMENT FOR GROUNDWATER SUSTAINABILITY PLAN DEVELOPMENT

BEDFORD-COLDWATER GROUNDWATER SUSTAINABILITY AUTHORITY

By: _____
Paul Rodriguez, Chairman

Dated: _____

Attest:

_____
Phil Williams, Secretary

Approved as to form:

_____
Steven O'Neill, General Counsel

SIGNATURE PAGE 2 OF 2 TO THE PROFESSIONAL SERVICES AGREEMENT FOR GROUNDWATER SUSTAINABILITY PLAN DEVELOPMENT

GSP Consultant

By:_____
(Authorized Representative of Vendor)

Printed Name:_____

Title:_____

Dated:_____

EXHIBIT A
SCOPE OF SERVICES

EXHIBIT B
SCHEDULE OF SERVICES

BEDFORD COLDWATER
Groundwater Sustainability Authority

BEDFORD COLDWATER SUBBASIN GROUNDWATER SUSTAINABILITY PLAN DEVELOPMENT PROPOSAL

| APRIL 30, 2019 |

TODD GROUNDWATER

BEDFORD COLDWATER
Groundwater Sustainability Authority

BEDFORD COLDWATER SUBBASIN GROUNDWATER SUSTAINABILITY PLAN DEVELOPMENT PROPOSAL

April 2019

Revised May 10, 2019

TODD GROUNDWATER

2490 Mariner Square Loop, Suite 215
Alameda, CA 94501
510.747.6920
www.toddgroundwater.com

April 30, 2019

Re: Proposal to Bedford Coldwater Groundwater Sustainability Authority for Bedford Coldwater Basin Groundwater Sustainability Plan (GSP) Development

Dear colleagues at Bedford Coldwater GSA,

The Bedford Coldwater Subbasin (Basin) has been the focus of historical and ongoing collaborative groundwater basin management among three key agencies: City of Corona (Corona), Elsinore Valley Municipal Water District (EVMWD), and Temescal Valley Water District (TVWD). These agencies, through Bedford Coldwater GSA, have confirmed their collective dedication to management for groundwater sustainability and—while not required to do so—have decided to prepare a GSP. This is no small task and BCGSA has systematically organized its efforts, gained funding, retained the services of Stantec to act as Administrator and to aid in SGMA compliance, and now seeks a consultant to provide technical assistance and to help complete a GSP that meets all SGMA and GSP requirements and supports Basin sustainability.

We would be pleased to work with you on this effort. To develop a GSP, we can combine our local knowledge of Bedford Coldwater with our GSP expertise from elsewhere across California; as documented in the enclosed proposal, our staff is working on seven GSPs, including several on the fast-track for critically-overdrafted basins. We can bring you lessons learned from that experience.

I am pleased to propose Mr. Chad Taylor, Senior Hydrogeologist, to serve you as Project Manager. Mr. Taylor is a dedicated project manager who brings not only experience from other basins, but also highly relevant understanding of local hydrogeology and groundwater management plus good working relationships with BCGSA and Stantec staff. Mr. Taylor has organized a team of groundwater professionals versed in GSP preparation. This team recognizes that, while Bedford Coldwater has been managed for years, doing a GSP can provide a comprehensive and rigorous basis for future management, including development of a numerical modeling tool. Accordingly, Mr. Taylor has included three senior modelers on his team with the specialized expertise needed to build a useful and reliable numerical model. I would be pleased to serve as Principal in Charge.

This proposal has been prepared in response to your Request for Proposal dated April 30, 2019; the enclosed cost estimate will remain valid for a period of 180 days from today's date of submittal. On behalf of the Todd Groundwater team, we look forward to the opportunity to work with BCGSA and Stantec staff on this important work toward groundwater sustainability. Please do not hesitate to call Chad or me. Mr. Taylor and I can be reached at the address and telephone number below, or with our respective emails ctaylor@toddgroundwater.com and pstanin@toddgroundwater.com.

Sincerely,

Phyllis A. Stanin

Phyllis Stanin, PG, CHG, CEG
Vice President

1. PROJECT UNDERSTANDING AND APPROACH

The Bedford Coldwater Subbasin (Basin) encompasses only eleven square miles and less than 2,000 acre-feet per year of pumping. Nonetheless, it has been the focus of historical and ongoing collaborative groundwater basin management among three key agencies: City of Corona (Corona), Elsinore Valley Municipal Water District (EVMWD), and Temescal Valley Water District (TVWD).

For more than 50 years, Corona, EVMWD, and TVWD (and predecessors) have utilized groundwater from the Basin for municipal use and in recent years have cooperated in proactive basin management. For example, the City of Corona and EVMWD executed legal agreements for managed withdrawals from the Coldwater area; this management helped control the amount of pumping. In 2008, the City of Corona included the Basin in its Groundwater Management Plan (GWMP); this GWMP was prepared with active participation by TVWD, which provided a detailed feasibility study for managed recharge of recycled water in the eastern Basin. Similarly, EVMWD has assessed the feasibility of recharging imported water in the western Basin. All three agencies have cooperated in a joint feasibility study for additional groundwater production. While important data gaps exist, and much work remains to be done, this long-term cooperative groundwater management has likely resulted in a basin that is sustainable.

This collaborative management is now proceeding in accordance with the 2014 Sustainable Groundwater Management Act (SGMA). In brief, in 2017 the three agencies formed the Bedford Coldwater Groundwater Basin Authority Joint Powers Agency, successfully applied to become the Bedford Coldwater GSA (BCGSA), laid plans to develop a Groundwater Sustainability Plan (GSP), and secured grant funding for GSP preparation. In 2018 however, the Basin—originally designated as medium priority by the Department of Water Resources (DWR)—was re-prioritized to very low-priority, mostly reflecting its low groundwater pumping. This change removed the requirement for BCGSA to prepare a GSP. Nonetheless, BCGSA has decided to carry through with its shared commitment to groundwater sustainability by preparing a GSP.

This decision will reap the rewards of continuing cooperative groundwater management. While the Basin may be designated very-low priority on a state-wide basis, it clearly has importance as a local source of groundwater supply and storage for multiple beneficial uses. This importance will only increase as competition for imported water supply increases and as climate change threatens to reduce Sierran snowpack and raise consumptive demand. Moreover, the Bedford Coldwater Basin may be small with finite resources and limited pumping, but this is a good reason for continued and refined management.

Developing a GSP will provide a new and comprehensive basis for such continuing management. Preparing a GSP will provide the broader view of what sustainability is—a multi-faceted condition that addresses groundwater levels, storage, quality, connected surface water, and subsidence[1]. This will support the BCGSA in describing how the local groundwater system works, documenting its historical and current conditions, identifying beneficial uses and users, providing a numerical modeling tool, exploring sustainability criteria, improving its monitoring, developing effective management actions as needed, and providing reporting.

This is a big effort for a small basin. Fortunately, BCGSA is well organized and funded to proceed with a GSP. The challenge is to achieve as much as possible within the GSP scope, schedule, and budget and then to define a future management program (actions, monitoring, reporting) that is tailored for Bedford Coldwater Basin. Our approach, described below, builds on historical achievements of the three agencies and is responsive to future challenges of the BCGSA.

[1] Seawater intrusion is not an issue in this basin but will be noted as required by DWR's GSP Regulations.

1.1. APPROACH

Our approach involves building on what is known about this Basin and identifying and addressing what is not known; providing a strategic plan to guide numerical model development; preparing basin setting sections of the GSP expeditiously; and providing technical support to GSA staff and consultants for effective outreach and for GSP completion with a step-by-step schedule.

This approach is based on Todd Groundwater's history of working in the Basin. Most recently as part of the GSP development, the BCGSA retained Todd Groundwater to compile all relevant groundwater and geologic data in the Bedford Coldwater Basin in anticipation of GSP preparation. During this process, we took the opportunity to begin developing specific ideas about how to complete the GSP given our knowledge of the basin, its available data and data gaps. Based on this, we have highlighted the following outstanding items for completion of the GSP:

- Development of a numerical modeling tool is a key effort, particularly considering data gaps and the small size of the basin that provides little margin for error; accordingly, we endorse initial development of a modeling strategy and a subsequent iterative approach
- Surface water modeling is needed to address the dynamic nature of local watersheds and provide a technically defensible and reliable method for estimating surface water inputs
- Efficiency in preparing initial GSP sections (Plan Area, Hydrogeologic Conceptual Model, and Groundwater Conditions) would help meet a relatively foreshortened schedule
- Logistical coordination among BCGSA staff and consultants to support consistent and robust GSP preparation and completion with a timely schedule.

1.1.1. Development of a Modeling Strategy

First, we recognize that a numerical groundwater model is central to the GSP process and second, that the Bedford Coldwater Basin presents some challenges to modeling, including its small size and the existence of data gaps. As noted above, the Basin is small and annual groundwater use also is small relative to other basins. However, the ratio of annual groundwater use to total groundwater storage and to sustainable yield is high. This indicates greater sensitivity to error in estimating sustainable yield and thus in managing the Basin. In other words, flow estimates that might be acceptable as error in water budgets for larger basins could drastically shift the sustainable yield for a small basin with important ramifications for management.

The work addressing data that we completed in 2018 revealed some significant data gaps with the potential to affect modeling effectiveness and sustainable yield accuracy. These data gaps involve surface water flow and groundwater elevations, as well as water quality monitoring. The Scope of Work outlined below incorporates further assessment of field work; however, water budget preparation and numerical modeling for the GSP requires historical data covering a period of at least ten years and needless to say, there is no way to measure conditions that occurred in the past. This is not a unique situation and our modeling team has prepared many water budgets and groundwater models in similar circumstances.

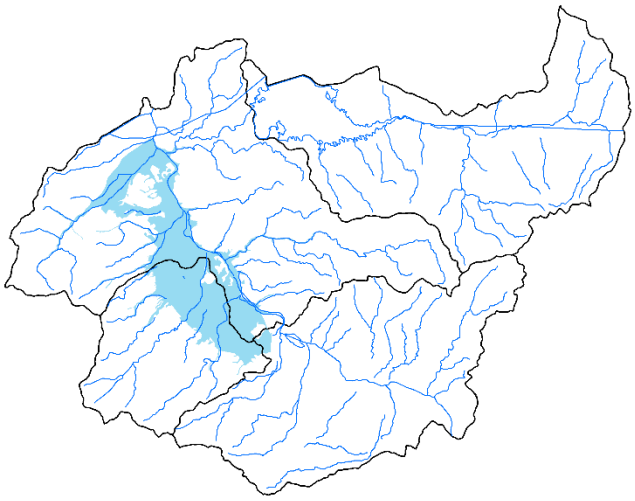
Recognizing these challenges and based on our modeling experience, we anticipated a phased, iterative approach. The first step will involve collaboration with BCGSA and Stantec to establish objectives of the groundwater model; we recommend that this be a primary topic for the first monthly teleconference and the first in-person meeting. Given that this is a GSP effort, we envision a numerical model that is designed to evaluate current and future sustainability and the effects of projects, management actions, and climate change. Accordingly, we would like to discuss BCGSA ideas for potential projects and management actions.

Use of the USGS MODFLOW software is assumed and our modeling team brings hands-on experience with dozens of MODFLOW models. Model development will involve construction of the model framework (domain, boundaries, layers, grid), assessment of the water budget, and evaluation of aquifer parameters using available data and professional estimates and consistent with the description of the Hydrogeologic Conceptual Model, quantification of the water budget, and documentation of groundwater conditions in the GSP document. Throughout the model development process and the subsequent application of the model to scenarios, we recommend regular discussion with BCGSA and Stantec. Such discussion, along with the deliverables for a model strategy TM and model documentation report, will ensure a shared understanding of data and assumptions used to build the model and its uncertainties.

Our core modeling team, led by Mike Maley with support from Gus Yates and Maureen Reilly, brings over 50 years of combined experience preparing dozens of water budgets and groundwater models in similar circumstances. This core group will begin to develop a modeling strategy immediately on project startup to fulfill GSP requirements, incorporate BCGSA objectives, and address data availability.

1.1.2. Surface Water Modeling

A dependable and consistent set of surface water inputs is the most important data gap for water budget estimation and groundwater modeling. The lack of historical flow records for local streams can be overcome by calibrating a watershed hydrology model to nearby gauged watersheds. Several streams draining similar watersheds on the eastern slopes of the Santa Ana Mountains have gauge records suitable for calibration.



We recommend using a watershed surface hydrology model to develop runoff and subsurface inflow rates for input to the groundwater model. Although a standard watershed model such as PRMS could be used, it is highly parameterized, focused on surface flow with crude accounting of watershed subsurface flow, and not able to simulate urban and agricultural land uses that are present in the valley floor areas. Our Senior Hydrologist, Gus Yates, has spent decades perfecting a system for calculating rainfall recharge and surface water discharge using a combination of open-source software tools to create surface water models that link to groundwater models. This approach uses measured precipitation and elevation corrections to simulate rainfall throughout a watershed area and then estimates surface water runoff and groundwater based on soil infiltration characteristics, available water capacity of the root zone, and plant evapotranspiration (ET). These spatially enabled models are linked to stream segments and route water through drainages and into model domains for percolation estimates. It handles all land use types. By calibrating surface runoff to nearby reference watersheds and jointly calibrating the surface hydrology model with the groundwater model, Mr. Yates obtains relatively accurate estimates of subsurface and surface inflows to the basin. Finally, for this region, the mountain front recharge estimates can be compared with published results independently derived using the USGS basin characterization method. Other consulting firms have approaches designed to address this type of data gap, but these are commonly not carefully calibrated or depend on proprietary software packages that cannot be transmitted to agencies for future use. Mr. Yates' methods are always open-source, easily updated, and readily available to clients at project completion.

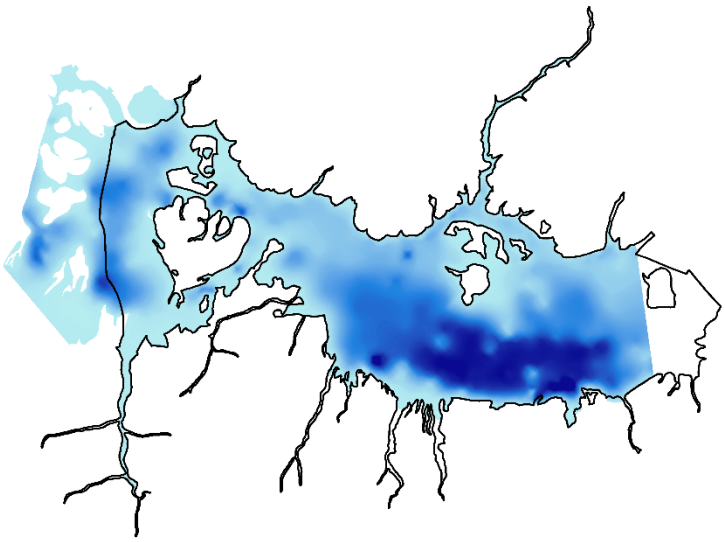
1.1.3. Efficient Preparation of Initial GSP Sections

Initial sections of the GSP provide the foundation to understand the institutional, geographic, land use planning, and water management setting for the GSP. For development of the groundwater model (a critical task), the most important sections are the hydrogeologic conceptual model, groundwater conditions, and water budget sections. Based on our experience preparing seven GSPs, we are versed in their preparation. Moreover, we are familiar the current state of the Bedford Coldwater Basin. Accordingly, we can quickly and efficiently prepare these GSP sections while simultaneously planning for and constructing the numerical groundwater model. Specific topics that warrant additional work include the following:

- The hydrogeologic conceptual model and water budget at the northwest and southeast boundaries where the Basin abuts the Temescal and Elsinore Basins, respectively
- Basin bottom depth/elevation covering the recently expanded Basin boundaries
- Maps and descriptions of groundwater recharge and discharge areas
- Potential for subsidence, which has not previously been noticed or addressed in many small basins
- Interconnection of surface water and groundwater and groundwater dependent ecosystems (GDEs), which involves complex issues of where and when hydraulic connection occurs and what it means for habitats.

Each of these is addressed in the following paragraphs.

For the most part, the **hydrogeologic conceptual model** is relatively complete. However, limited to no information exists relating to the connections and flow at the northwest and southeast boundaries as noted above. As part of the Basin Boundary Modification application to DWR, we prepared a preliminary conceptual model, the hydraulic relationships between Bedford Coldwater Basin and the adjacent basins at these locations are not well documented. We propose to refine the hydrogeologic conceptual model at these locations by reviewing available well logs and groundwater elevation records from wells near and across the boundaries, including the Flagler wells near the northwest boundary and the Gregory wells in the Elsinore Basin just across the southeast boundary. We will also review available logs from other wells near these locations for the construction of local cross sections. The combination of lithologic, cross section, and groundwater elevation analysis at these locations should provide sufficient information to supplement the conceptual model and water budget relating to these boundaries with neighboring basins.



We prepared a detailed **basin bottom** surface as part of the Groundwater Management Plan for the Temescal Basin and Bedford Coldwater area in 2008. This surface was estimated based on well logs and the basin boundaries at that time. While the representation for most of the current Basin is still accurate, it does not include all of the current Basin. Chad Taylor developed the dataset and methodology for creating the aquifer bottom surface in 2008 and he will lead the team in quickly expanding and refining this surface to represent the current Basin area. This will include incorporation of selected well log data for wells in the expanded Basin area and application of reasonable geologically based assumptions regarding erosional and depositional conditions throughout the Basin. A definable basin bottom is not only a requirement for a GSP,

it is also essential for construction of a numerical groundwater model. We will quickly revise the existing surface to provide a functional digital basin bottom for direct inclusion in the numerical model.

Formal maps and detailed descriptions of **groundwater recharge and discharge areas** have not been prepared for the Basin. Our approach is to provide this mapping through a detailed spatial water budget that will include recharge and discharge from/to all sources and sinks as part of the combined work on the water budget and numerical model. The recharge and discharge components of the spatial water budget will be conceptualized as consisting of three components based on their footprints: areas, lines and points. For example, areas include irrigated areas (with return flows) and areas with rainfall recharge, lines include streams, and points include recharge ponds for inflows and springs or seeps for outflows. Each of these will be mapped and described in the Hydrogeologic Conceptual Model section, with quantification in the water budget section, and inputs/outputs included in the numerical model. This ensures consistent and meaningful documentation of recharge and discharge.

Land subsidence is the differential lowering of the ground surface, which can damage structures and facilities. This may be caused by regional tectonism or by declines in groundwater elevations due to pumping; the latter process resulting in inelastic subsidence is relevant to the GSP and will be described to provide a shared understanding of any potential subsidence. To our knowledge, there has been no previous indication of historical or potential land subsidence in the Basin. Nonetheless, we will review historical records and currently available data to assess any occurrence or the potential for problematic land subsidence; this will be summarized in the groundwater conditions section of the GSP. We have recently completed several such analyses for other GSPs, including the North San Benito Groundwater Basin, and we are well acquainted with the related data and GSP requirements.

Interconnection of groundwater and surface water occurs wherever and whenever the water table intersects the land surface and groundwater discharges into a stream channel or spring, or where the water table is shallow and supports groundwater-dependent plants (phreatophytes). In our experience, the most common pitfalls with identifying groundwater-surface water connections stem from the type of data used. Available data for groundwater levels are almost always from water supply wells screened at considerable depth below the ground surface. In addition, vertical water-level gradients are common in California alluvial basins, which means that the true water table is often higher than the water level in a well at the same location. This data gap can be overcome for initial GSP preparation by estimating the potential vertical gradients given the texture and layering of the basin fill materials.

With regard to habitat impacts, digital maps of Natural Communities Commonly Associated with Groundwater (NCCAG) are available on-line but are useful only as generalized indications of types of vegetation that might be present. In other areas we have found the mapping of riparian vegetation to be uneven in level of detail, inconsistent with our own field reconnaissance, and inclusive of species not always dependent on shallow groundwater, as well as invasive species. Similarly, wetland maps sometimes include all small water bodies, many of which turn out on closer inspection to be artificial or clearly not associated with groundwater. The extent of riparian and wetland areas plausibly dependent on groundwater is usually much smaller than the areas included in the NCCAG maps.

We also note that GDEs involve not only vegetation and wetlands but also animals. A preliminary review of information for threatened and endangered animal species found none in the Basin and only one with critical habitat adjacent to the Basin: the federally threatened coastal California gnatcatcher. The gnatcatcher is a bird species strongly associated with sage scrub, which is a relatively dry habitat not dependent on shallow groundwater. No anadromous fish species migrate through the area. A more complete review

of vegetation and animal habitats will be completed during GSP preparation, but the preliminary indications are that GDEs will not pose a significant constraint to sustainable groundwater management.

Gus Yates, a recognized expert in hydrology and surface water ecosystem analyses, has successfully applied these approaches to linked watershed-groundwater modeling, surface water-groundwater connection and GDE mapping for the North San Benito Basin GSP, Arroyo Seco GSP, and Kern River GSP to date.

1.1.4. Logistical Coordination Relating to GSP Preparation

We understand that BCGSA has opted to retain primary responsibility for some elements of GSP preparation. Based on our recent and ongoing experience in preparing other GSPs, we know how important coordination is among team members, including GSA staff and other consultants. For Bedford Coldwater, the following are our key logistical considerations:

- Coordination among GSA staff and consultants will allow consistent and effective communication
- Coordination with BCGSA and Stantec will support seamless completion of Management Area, Project and Management Actions, and Plan Implementation portions of the GSP
- Mutual planning of the GSP schedule will yield a timely and robust GSP.

The RFP indicates that we will coordinate with the BCGSA and Stantec for completion of the management area, project and management actions, and plan implementation portions of the GSP. Coordination for these items is essential and we look forward to working collaboratively on these GSP components. The specific level of effort for this coordination is uncertain, but we have included subtasks and time/cost estimates for these coordination activities in our scope and budget. We appreciate the opportunity to discuss and plan for appropriate coordination on these items during contract negotiation.

We note that the BCGSA grant application to DWR included five stakeholder engagement meetings and that the RFP states that we would not bear primary responsibility for stakeholder engagement. Therefore, we have omitted costs associated with stakeholder meetings or preparation of outreach materials. If needed, we assume that any such coordination will be handled with information and graphics prepared for other items of work.

1.2. WE HAVE PREPARED A SCHEDULE THAT RESPONDS TO THE REQUESTED COMPLETION DATE OF DECEMBER 31, 2020. HOWEVER, THIS SCHEDULE WILL REQUIRE SIMULTANEOUS AND CLOSELY COORDINATED COMPLETION OF THE SUSTAINABILITY CRITERIA, MONITORING NETWORKS AND PROTOCOLS, PROJECT AND MANAGEMENT ACTIONS TO ACHIEVE SUSTAINABILITY, SCENARIO MODELING, MODEL DOCUMENTATION, AND PLAN IMPLEMENTATION PORTIONS OF THE GSP. SUCH TIGHT SCHEDULING WILL LIMIT THE TIME AVAILABLE FOR THE BCGSA TO CONSIDER AND DEVELOP PROJECTS AND MANAGEMENT ACTIONS THAT RELATE TO SUSTAINABILITY CRITERIA AND PREPARE AN IMPLEMENTATION PLAN THAT IS RESPONSIVE TO THE OTHER ASPECTS OF THE GSP. WE NOTE THAT THE GRANT AGREEMENT HAS GSP DEVELOPMENT CONTINUING THROUGH THE END OF JUNE 2021, AND WE RECOMMEND THE BCGSA CONSIDER EXTENDING THE SCHEDULE FOR AN ADDITIONAL FOUR TO SIX MONTHS. WE BELIEVE THIS WOULD RESULT IN A MORE ROBUST GSP.SCOPE OF WORK

The following scope of work has been prepared in response to the RFP and follows the format presented therein. Subtasks have been added to some of the RFP tasks to facilitate discussion of the items of work and highlight important aspects of the project.

TASK 1 - RESOLUTION OF RECOMMENDED FIELD WORK

Previous evaluations of the Basin have indicated the need for additional monitoring wells and other monitoring well equipping. The recommendations for the number and location of additional monitoring wells in these evaluations varied, and the most recent recommendation was for six new monitoring wells to cover the entire Basin. We understand that the BCGSA is currently working on identifying existing wells that could be included in future groundwater monitoring and has considered other monitoring in the Basin.

We will work with the BCGSA and Stantec to review the previous recommendations for additional field work, including new monitoring well construction. This re-evaluation will include assessment of the appropriate density of monitoring wells and the need for other types of monitoring (e.g. surface water flow and climate). This evaluation will build on the assessment that we performed for the data compilation work recently completed for the BCGSA and will address the requirements of BCGSA's Grant Agreement with DWR. We will prepare a technical memorandum describing findings, recommendations, and order-of-magnitude cost estimates for each recommended component. Some of these recommendations may include short-term implementation, and others may be included in GSP implementation. Future work to fulfill recommendations will be outlined. We will present these recommendations to the BCGSA in one of the monthly teleconferences and then finalize the memorandum based on comments from the BCGSA.

Deliverables:

- Draft Technical Memorandum on recommended field efforts
- Final Technical Memorandum on recommended field efforts based on BCGSA comments

TASK 2 - GROUNDWATER MODEL:

SGMA effectively requires that groundwater modeling be used to demonstrate that a GSP will achieve sustainable basin operation (Reg. § 352.4). As noted above, there currently is no numerical groundwater model of the Basin. Todd Groundwater will work with BCGSA and Stantec to develop a modeling strategy and then construct and calibrate a model for the Basin using the USGS MODFLOW model code. The resulting model will then be applied to evaluate future scenarios including climate change and projects and management actions to achieve (or maintain) sustainability.

Task 2.1 - Develop model strategy

Before constructing a model, Todd Groundwater will develop a modeling strategy and present the strategy to BCGSA as a Technical Memorandum. The model strategy will be developed in consideration of available data and information, GSP requirements, likely scenarios, projects, and management actions, and BCGSA objectives. These evaluations will be conducted in conjunction with development of the hydrogeologic conceptual model, groundwater conditions, and water budget sections of the GSP so that a reasonable and realistic modeling strategy can be recommended. The model strategy will present recommendations for model attributes including the layering, model domain, grid spacing, proposed boundary conditions, calibration period, water budget inputs and estimation methodologies, and calibration targets. The need for the model to include simulation of water quality will be considered. At this time, we envision the model will be constructed to cover the entire Basin area with an orientation consistent with groundwater flow conditions. Some of the water budget inputs to the model will be from measured parameters (e.g. treated wastewater releases and recycled water return flows), but many will necessarily be calculated estimates. We will apply rigorous, scientifically justified approaches to these estimates and produce them in open-source formats so that the results can be readily described, understood, and reviewed. These will include the linked surface hydrology model and pre-processing utility programs described in the Approach.

We will provide the model strategy technical memorandum as a draft for BCGSA review and then track and incorporate comments into a final memorandum describing the modeling strategy.

Deliverables:

- Draft model strategy Technical Memorandum
- Final model strategy Technical Memorandum (with comment/response documentation)

Task 2.2 - Construct and Calibrate Model

Numerical groundwater model construction and calibration includes creating digital representations of the conceptual model, groundwater conditions, and water budget and then iteratively running the model with variable inputs (e.g. changing aquifer parameters) and checking how well the model matches measured values (usually groundwater elevations). The numerical model will be constructed to reflect the hydrogeological conceptual model, groundwater conditions, and water budget for the GSP and in accordance with the model strategy developed in the previous task. The specifics of this model construction and calibration task will depend on those recommendations. However, for scheduling purposes it will be necessary to start this task as early as possible.

Task 2.3 - Model Scenarios

The completed and calibrated model will be applied to evaluate sustainable yield (as defined by DWR), future scenarios (including climate change), and projects and management actions. Evaluation of sustainable yield will inform future water use and growth potential and will be a key component of sustainability assessment for the GSP. We will work with BCGSA to define future scenarios (in consideration of SGMA requirements and DWR guidelines) and to prepare and evaluate up to 10 scenarios representing different management actions and projects.

Task 2.4 - Model Documentation

We will prepare a comprehensive model document Technical Memorandum describing all aspects of model construction and calibration and representing the finished model. This model memorandum will also include documentation of sustainable yield estimates and descriptions, summaries of model inputs, and results of scenarios representing future conditions, management actions, and projects. The model documentation memorandum will be provided to BCGSA in draft for review and comment prior to finalization and incorporation into the GSP (as an appendix). In addition, all model files (including pre-processing files and open-source utilities) will be uploaded to the SharePoint site for inclusion in the GSP DMS.

Deliverables:

- Draft model documentation Technical Memorandum
- Final model documentation (including a description of the results of management scenarios) Technical Memorandum with model and data files uploaded to the SharePoint site

TASK 3 - PRELIMINARY DRAFT GSP

We will prepare sections of the preliminary draft GSP for incorporation into a complete GSP by Stantec and review by the GSA. Specifically, we will prepare all or most of the following GSP sections:

- GSP Plan Area
- Hydrogeologic Conceptual Model
- Groundwater Conditions
- Quantify the Water Budget
- Define Sustainability Criteria
- Develop Monitoring Networks and Protocols

Preliminary draft versions of each of these sections will be submitted to the BCGSA and Stantec for review as soon as they are complete, as indicated in the Schedule (Proposal Section 4). This will allow the BCGSA and Stantec as much time as possible to review each GSP section prior to providing comments in Task 4. We will also coordinate with Stantec and the BCGSA in planning, analysis, and preparation of the remaining components of the GSP, including:

- Identification of Management Areas
- Projects and Management Actions to Achieve Sustainability
- GSP Implementation

Each section of the preliminary draft GSP will be as complete as possible considering data and information availability. Each section will also include data gaps analysis and identification of data gaps in the context of SGMA and DWR guidelines, and we will discuss any data gaps that have been identified with the BCGSA and Stantec in regular monthly teleconferences.

Task 3.1 - GSP Plan Area

This task begins the preparation of the GSP with organization and compilation of required information on the GSA. With description of jurisdictions, water supply purveyors, and land use planning agencies, this task sets the stage for cooperation and collaboration among agencies. This task also will document the areal distribution of water supply wells and will provide descriptions of existing water resources management and monitoring programs. These lay the groundwork for interaction of the GSP with existing management and monitoring programs and land use plans. Required portions of the Plan Area are:

Present GSA Information

This subsection describes the management structure for the GSP, the GSA and its legal authority.

Describe Plan Area and Institutional Setting

This subsection will describe the GSP Area, including development of GIS maps showing groundwater basins, GSP Area, jurisdictional boundaries, land use designations, and density of wells. This task will rely on previous work, build on the existing data compilation and DMS, and utilize existing documents (e.g. county and city general plans).

Plan Area Maps and Basin Boundary

The basin boundaries will be documented on a map as they currently are defined

Jurisdictional Areas

Jurisdictional boundaries of state land, cities, counties, and agencies with water management responsibilities will be identified using appropriate maps and will be described.

Water Supply and Water Purveyors

Water supply agencies in the GSP Area will be documented, water supply will be summarized by source, and maps of service areas will be provided. This will include initial documentation of monitoring programs used to track local groundwater levels and quality.

Density of Wells

SGMA requires summary documentation of well locations and DWR has provided well density estimates by PLSS Section that include summary of well type and total depth statistics. These data will be incorporated into maps and descriptions.

Current Monitoring Programs

This subtask will update the documentation of the existing monitoring program to include current conditions and monitoring methodologies.

Water Resources Management Programs
Historical management activities have been documented in previous reports; this subtask will extend that documentation to include recent historical and current water management programs.

Describe Land Use Planning
This section will describe land uses and land use planning. Recognizing ongoing changes, land use will be updated to current conditions, as data are available. City and County General Plans will be discussed, and relevant objectives, policies, and implementation summarized in handy tables. Well permitting processes, standards and policies, handled by the County, will summarized.

Deliverables:

- Preliminary Draft GSP Section – GSP Plan Area

Task 3.2 - Hydrogeologic Conceptual Model (HCM)
This task involves analysis and description of the hydrogeologic framework, including the geometry and structural controls of the groundwater basin, delineation of aquifers and aquitards, and evaluation of aquifer properties. The geologic structure of the Basin has some complexity (for example, major faults that affect groundwater flow) which has been described and depicted in previous investigations. However, the previously completed conceptual models did not include complete description and delineation of the current Basin's entire extent. This task will review previously completed hydrogeologic conceptual model, provide a fresh examination of the hydrogeologic setting from a groundwater basin management perspective, and extend the conceptualization to include the entire Basin. The HCM will describe the physical setting of the GSP Area and provide regional maps:

- Physical Setting and Topography
- Surface Water Features
- Soils
- Geologic Setting
- Faults
- Aquifers
- Physical Properties of Aquifers
- Structures Affecting Groundwater
- Definable Basin Bottom
- Cross Sections
- Recharge and Discharge Areas
- Primary Groundwater Uses
- Data Gaps in the Hydrogeologic Conceptual Model

Previous investigations completed by Todd Groundwater have included the preparation of cross sections covering much of the Basin. These cross sections will be reviewed to assess their adequacy in relation to the current Basin boundaries and if necessary, regional data, previous studies, and geologic maps will be used to develop additional cross sections that illustrate the geologic structures and hydrogeologic formations across the Basin.

The bottom of the basin has been estimated as part of previous work performed by Todd Groundwater. These estimates include GIS-based surfaces of basin depth for the previous Basin boundaries, but not the

current boundaries. The basin bottom depth surfaces will be reviewed and re-evaluated for the current Basin boundaries using available information from well logs and surficial geology. We already have much of this data digitized in formats that will facilitate efficient refinement.

Previous investigations have not included delineation of recharge and discharge areas in the Basin. We will assess and map recharge and discharge by type throughout the Basin as part of the Water Budget (Task 3.4) and include summary descriptions and maps of recharge and discharge in the hydrogeologic conceptual model section of the GSP.

Deliverables:

- Preliminary Draft GSP Section – Hydrogeologic Conceptual Model (delivered with Preliminary Draft Groundwater Conditions GSP Section)

Task 3.3 - Groundwater Conditions

This task will describe the current and historical groundwater conditions in the Basin. SGMA requires definition of various study periods for current, historical, and projected future conditions. Current conditions, by SGMA definition, include those occurring after January 1, 2015 and accordingly, historical conditions occurred before that date. A historical period must include at least 10 years. The study period for the GSP will be assessed and defined in this section. Considerable information relating to groundwater conditions has been compiled as part of the data compilation work Todd Groundwater completed in 2018. These data will be used in assessment and analysis of groundwater conditions for the study period in terms of the six sustainability indicators identified in SGMA:

- Groundwater elevations
- Groundwater storage
- Groundwater quality
- Potential subsidence
- Seawater intrusion (which is not likely to occur in this inland basin)
- Interconnected surface water and groundwater dependent ecosystems.

Groundwater elevations, storage, and quality will be assessed and summarized in terms of current and historical conditions from existing monitoring programs and will be represented by groundwater elevation contour maps, hydrographs, water quality mapping and trend analysis, and summation of previously completed investigations.

Potential subsidence (as discussed in the Approach) will be assessed through a combination of available data analysis and review of historical records and reports.

Surface water-groundwater interconnection will be described based on available studies and new evaluations of gaining and losing reaches of the water bodies. As discussed in the Approach, we have a methodology for evaluating surface water-groundwater connection using in conjunction with available mapping of vegetation and groundwater depth conditions. We will employ these tested techniques to identify areas where groundwater and surface water are interconnected and to assess the presence of groundwater dependent ecosystems.

Deliverables:

- Preliminary Draft GSP Section – Groundwater Conditions (delivered with Preliminary Draft Hydrogeologic Conceptual Model GSP Section)

Task 3.4 - Quantify the Water Budget
Water budgets will be quantified for historical and current conditions using past studies, recent monitoring data and investigations, reasonable calculations, and the numerical groundwater model. In 2007 Todd Groundwater prepared a water budget that included the Basin; the GSP water budget will build on this information and include use of available data and best available science to quantify inflows, outflows, change in storage, and overdraft (if any). Historical and current water budgets will address management areas as required and flows between adjacent basins.

Much of the data required for the water budget has already been compiled in the DMS. However, some important data gaps have been identified (e.g., historical surface water flows as discussed in the Approach); we will work with Stantec and the BCGSA to identify appropriate methods for filling these data gaps. This work will be closely coordinated with the Task 1 data collection and Task 2 modeling.

Deliverables:

- Preliminary Draft GSP Section – Water Budget

Task 3.5 - Coordinate Identification of Management Areas
If needed, the GSP Area will be divided into management areas defined to facilitate sustainable groundwater management and GSP implementation. We will assist Stantec and the BCGSA in evaluating the need for and applicability of management areas for the Basin.

To evaluate the utility of management areas, we will assist Stantec and the BCGSA in considering information from previous tasks describing the plan area (e.g., historical groundwater management), hydrogeologic conceptual model, and groundwater conditions. GSP regulations note that a management area may involve different criteria (minimum thresholds and management objectives) and management actions for each management area based on differences in water use sectors, water source types, hydrogeology, or other factors. The utility of management areas will be discussed with BCGSA and Stantec.

Deliverables:

- None

Task 3.6 - Define Sustainability Criteria
This task will build on the hydrogeologic conceptual model, groundwater conditions, and water budgets to define and evaluate sustainability for the Basin. Understanding that seawater intrusion is not applicable, this task will systematically address each of the five remaining sustainability indicators (while recognizing that these are interlinked and must be handled consistently across the Basin.) This task will describe the cause of undesirable results and the effects on beneficial uses/users and landowners/property interests.

A stakeholder process is central to this evaluation. Defining these specific sustainability criteria, eliciting input from the BCGSA and stakeholders, and creating a detailed plan for future sustainability will be a coordinated effort. As required and applicable, sustainability criteria will be defined on management area basis, mindful of the entire Basin. We have included stakeholder meeting preparation and attendance in our budget for Task 7 to facilitate effective communication with stakeholders.

Sustainability Goal
This task will summarize information from the hydrologic conceptual model, basin setting, and water budget; consider beneficial uses and users; and establish the sustainability goal, the measures to be implemented for operation within sustainable yield, and how sustainability can be maintained through the planning and implementation horizon.

Undesirable Results
To define undesirable results, this task will evaluate the five sustainability indicators (all except seawater intrusion) in terms of:

- Chronic lowering of groundwater levels
- Reduction of groundwater storage
- Degradation of water quality, including contaminant migration
- Land subsidence
- Depletion of connected surface water with adverse impacts on beneficial uses.

Definition of undesirable results will begin with identification of the beneficial uses of groundwater and surface water in the Basin, consideration of conditions that are deemed significant and unreasonable for each indicator, and evaluation of basin-wide conditions that cause undesirable results. We will utilize available groundwater elevation monitoring and management to summarize historical groundwater level lows and the resulting impacts (for example, well yield declines, water quality deterioration, or subsidence). The numerical model also may be applied to explore undesirable results (for example, depletion of connected surface water) given current land uses, water demands, and operating conditions. The definition of undesirable results also will be based on applicable local, state, and federal standards, especially as applied to beneficial uses and water quality objectives. Potential effects of undesirable results on land use and property interests will be considered and discussed.

Minimum Thresholds
Minimum thresholds are quantified for each sustainability indicator and used to define undesirable results. Minimum thresholds for each sustainability indicator will be defined, justified and explained, quantified with comments on uncertainty, and linked to specific monitoring sites. Each will be explained in terms of how they help avoid undesirable results, how they might affect beneficial uses/users and landowners/property interests, how they relate to established regulatory standards, and how they will be measured. Descriptions of minimum thresholds will be consistent with DWR GSP regulations. If management areas are used, the minimum thresholds for these individual areas will be defined and possible undesirable results outside the management area will be discussed, if applicable.

Define Measurable Objectives
The measurable objective is a quantifiable goal for the maintenance or improvement of specified groundwater conditions related to each sustainability indicator and the sustainability goal. This task will build on previous information and analysis to establish sustainability objectives and milestones, if needed. Consistent with SGMA, these will be quantified for each sustainability indicator, consistent with minimum thresholds, and reasonably flexible. This GSP section will describe the pathway to sustainability for the basin within 20 years of GSP implementation (as needed), including a description of interim milestones for each relevant sustainability indicator, if needed, using the same metric as the measurable objective, in increments of five years.

Deliverables:

- Preliminary Draft GSP Section – Sustainability Criteria

Task 3.7 - Develop Monitoring Networks and Protocols
This task will establish the GSP monitoring network and protocols that will: 1) provide data to the hydrogeologic conceptual model and water budget and future model updates, 2) provide tracking and early warning regarding groundwater conditions and undesirable results, and 3) demonstrate progress toward and achievement of sustainability. Consistent with monitoring BMPs, the monitoring network will collect

data of sufficient quality, distribution, and frequency to characterize groundwater and related surface water conditions and to track changes, including short-term, seasonal, and long-term trends.

Evaluate Existing Networks

This task will build on existing monitoring programs. Guided by the Data Quality Objective (DQO) process described in the Monitoring Network BMP, the network will be designed to fulfill explicitly-stated sustainability goals and objectives, with identification of the data and analytical methods to evaluate sustainability indicators, definition of performance criteria, and development of a plan for obtaining data. Implementation of the monitoring network will be described in terms of objectives, specifically how the network will demonstrate progress toward achieving the measurable objectives, monitor impacts to beneficial uses or users of groundwater, monitor changes in groundwater conditions, and quantify annual changes in water budget components

The monitoring network will be described in terms of its coverage of the relevant sustainability indicators, including the following:

- Density of monitoring sites and frequency of measurements to demonstrate short-term, seasonal, and long-term trends
- Scientific rational for site selection
- Consistency with data and reporting standards
- Corresponding sustainability indicator, minimum threshold, measurable objective, and interim milestone

This section of the GSP will also address monitoring locations, types, protocols, and improvement. If management areas are used, this description of the monitoring network will provide detail appropriate for each management area. The monitoring network also will be developed to support consistency of data across basin boundaries both spatially and temporally. Protocols will be included that define the technical standards, data collection methods, and other procedures to ensure reliable and comparable data and methodologies, consistent with SGMA, GSP requirements, and the Monitoring BMPs. The documentation will include a description of technical standards, data collection methods, and other procedures or protocols to ensure comparable data and methodologies. The monitoring network will be evaluated to identify data gaps through consideration of the hydrogeologic conceptual model, water budget, modeling, and sustainability indicators. These data gaps may include augmented surface water data collection, subsidence, and other data needs. Recommendations for resolution of data gaps will be conveyed to the BCGSA and Stantec so that they can addressed in the GSP implementation plan.

Deliverables:

- Preliminary Draft GSP Section – Monitoring Networks and Protocols

Task 3.8 - Coordinate Projects, Management Actions, and Implementation

We will work with the BCGSA and Stantec in the development of projects and management actions to achieve sustainability and in the preparation of the GSP implementation plan. These items were identified in the RFP as beyond the scope of services. Our experience has shown that close coordination of these items with other aspects of the GSP is important. As such, we have included a limited budget for this task to include communication and coordination with both BCGSA and Stantec throughout the development of projects, management actions, and plan implementation so that the selected projects and actions are responsive to sustainability criteria and effective.

Deliverables:

- None

TASK 4 - COMMENTS ON THE DRAFT GSP

Following completion of the first draft GSP, we will attend a meeting with Stantec and the BCGSA to discuss data gaps or unresolved issues related to the GSP and receive comments on the preliminary draft GSP sections. We will use this opportunity to discuss comments and resolutions with the BCGSA and Stantec.

Deliverables:

- Meeting summary regarding the Draft GSP

TASK 5 - REVISED DRAFT GSP

We will incorporate comments from Task 4 into a revised Draft GSP. This task will include preparation of a tracked-changes version of the GSP text and a comment/response form that includes all comments and related resolutions. The revised Draft GSP will be appropriate for release to the public as part of the stakeholder engagement process. We will also prepare an empty comment/response form to be used for collecting and consolidating public comments on the revised Draft GSP.

Deliverables:

- Revised draft GSP
- Comment/response form

TASK 6 - FINAL DRAFT GSP BASED ON PUBLIC COMMENTS

On receipt of public comments (to be compiled by Stantec and the BCGSA using the form we provide in Task 5), we will prepare a Final GSP. This Final GSP will be delivered with a tracked changes version of the GSP text that shows all changes made based on public comments. We will also incorporate responses to the public comments in the completed comment/response form.

Deliverables:

- Final Draft GSP
- Comment/response summary

TASK 7 - PROJECT MANAGEMENT AND MEETINGS

We will track budget and schedule progress and provide monthly invoices and progress reports throughout the project. Monthly progress reports will be formatted for use in grant administration by the BCGSA. This task will also include meeting attendance, including the following:

- Monthly teleconferences with Stantec and the BCGSA to discuss progress, upcoming work, and any technical items that arise.
- Four in-person meetings at TVWD to discuss details of the GSP and present preliminary draft work products. These meetings are envisioned to occur in association with Task 1 which will also include discussion of work on Task 2.1, Task 3 following completion of preliminary draft Plan Area, HCM, and Groundwater Conditions GSP sections), Task 4 to receive comments on the Preliminary Draft GSP, and Task 6 to assist in presenting the Final GSP to the BCGSA Board.

All project meetings are included in this Task; meetings are not scoped separately for any other tasks.

Meetings:

- Monthly teleconferences (18)
- In-person meetings (4)

Deliverables:

- Monthly progress reports
- Meeting agendas for four in-person meeting
- Meeting summaries

2. QUALIFICATIONS

David Keith Todd Consulting Engineers, doing business as Todd Groundwater, specializes in the planning, development, management, and protection of groundwater and related surface water resources. We maintain a small, specialized staff focused on groundwater services to our clients. Our professional staff members have advanced degrees in civil engineering, geology, hydrogeology, geochemistry, geography, and environmental sciences.

Todd Groundwater has a long history in basin management and since 2016 we have been actively involved in GSP preparation in multiple and varied basins. Our firm also brings substantial local experience. Members of our team were involved in preparation of the 2008 Groundwater Management Plan for the City of Corona, which included numerical modeling. Todd Groundwater has worked with Corona, EVMWD, and BCGSA to help set the technical foundation for their future groundwater management.

The focused team for the BCGSA GSP include geologists, engineers, and modelers who have been working on GSPs in other areas, including overdrafted basins that have GSP completion deadlines before January 2020. Using lessons learned in the development of these plans, our team can focus on a GSP that satisfies requirements set out by DWR and meets the needs of the BCGSA.

2.1. PROJECT DESCRIPTIONS AND REFERENCES

BEDFORD-COLDWATER GSA BASIN BOUNDARY MODIFICATION, SGMA COMPLIANCE, AND GSP DATA COMPILATION

Todd Groundwater has been assisting BCGSA with SGMA compliance and GSP development for several years. One of the first SGMA actions undertaken by the DWR was to entertain requests for basin boundary modifications. Todd worked with the parties in the BCGSA to modify boundaries of the Elsinore Groundwater Basin to align with mapped alluvial deposits, to more accurately reflect the groundwater system and to split the basin into two separate subbasins: Elsinore Valley Subbasin and Bedford Coldwater Subbasin. The boundary modification requests were submitted to DWR based on scientific and jurisdictional rationale in accordance with SGMA, the California Water Code, and guidance provided by DWR. The request included collection of all previously completed groundwater and hydrogeologic studies for the entire area

Relevant Experience

- Basin boundary modification
- Hydrogeologic conceptual model preparation
- Groundwater management planning
- GSA formation
- SGMA compliance
- Hydrogeologic, hydrologic, and climate data collection and organization

Years Active: 2015 to 2019

Todd Role: Prime Consultant

Budget: $78,000

Key Staff
Chad Taylor and Phyllis Stanin

References

Mr. Jeff Pape, General Manager
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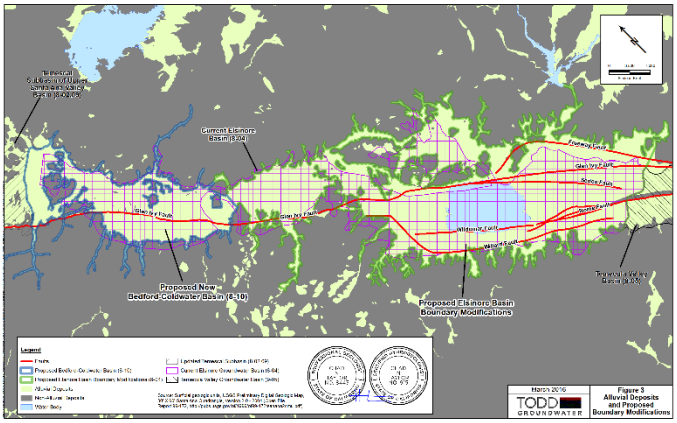
755 Public Safety Way
Corona, CA 92880
(951) 279-3601
KatieH@CoronaCA.gov

and development of hydrogeologic conceptual models for both proposed basins, a task that had not been formally completed previously. Todd worked with the BCGSA agencies to marshal the available resources and present a unified scientific and jurisdictional modification request package to DWR. The requested modifications were successful, and the resulting basins now more accurately reflect the hydrogeology and long-standing groundwater management of the area.

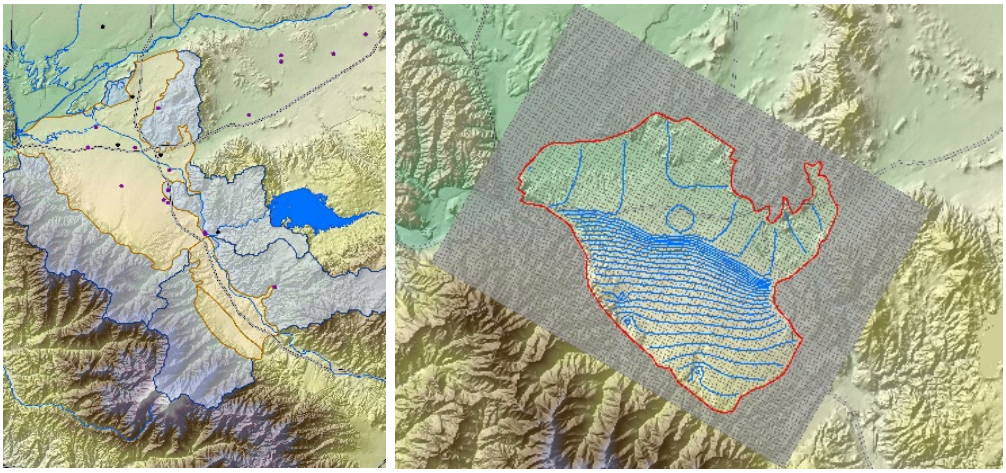
Todd Groundwater participated in the formal registration of the BCGSA with DWR, assisting the City of Corona, the Elsinore Valley Municipal Water District, and Temescal Valley Water District to form a GSA for the newly created Bedford-Coldwater Subbasin of the Elsinore Groundwater Basin. The City, EVMWD, and TVWD formed a Joint Powers Authority to collaboratively manage the subbasin and Todd worked with these agencies to prepare the components required for GSA notification in accordance with SGMA.

Todd Groundwater recently assisted the BCGSA in collecting, compiling, and organizing available data from all sources for development of a Data Management System (DMS) to support preparation of their GSP. Todd worked with the BCGSA and their administrators to collect available water supply, wastewater, hydrologic, hydrogeologic, and climate data from public and agency sources. These data were compiled into unified database and geodatabase formats and comprehensively documented for the DMS and to facilitate future use in the preparation of the GSP. These data will provide the foundation of the BCGSA GSP.



CITY OF CORONA GROUNDWATER MANAGEMENT, ON-CALL HYDROGEOLOGY, AND SGMA COMPLIANCE SERVICES

Since 2004, Todd Groundwater has provided hydrogeologic services to the City, including preparation of a Groundwater Management Plan (GMP), which involved development of a conceptual model in a complex hydrogeologic setting, construction and application of numerical and analytical models to evaluate management strategies, and evaluation of potential managed aquifer recharge sites in the Bedford area. The GMP was adopted in 2008; since that time Todd has been working with the City in an on-call capacity assisting with various hydrogeologic components of groundwater development and management.



The GMP identified development of new managed aquifer recharge (MAR) as an objective for long-term groundwater management, and Todd Groundwater has completed multiple recharge assessments for the City in pursuit of that goal. Each of these recharge assessments involved site evaluation and selection, exploratory drilling, and detailed analyses of recharge potential and restrictions. Two of the proposed recharge sites would have captured stormwater runoff and these evaluations included estimates of runoff volumes and stormwater drainage and detention potential.

Todd has also assisted the City in periodically reviewing components of the hydrologic budget for the Temescal and Bedford-Coldwater groundwater basins and in performing on-call hydrogeologic studies. The City's GMP also anticipated installation of new wells and replacement of existing wells over time to optimize production from the prolific Channel Aquifer. In 2012, the City was increasingly concerned with availability of imported water, less-than-desirable yields from several wells, and potential loss of a well to highway expansion. Todd Groundwater was retained for a field investigation to better characterize the Channel Aquifer, a shallow zone screened in most City wells in northeast portions of the City. This program involved extensive work with the City to site the drilling and monitoring wells in favorable areas on private and public land. Well siting had to consider assumed hydrogeologic conditions, land use, site access, restrictions to drilling and well construction from site activities and traffic, existing utilities, produced material and fluid disposal, and sensitive species. Todd and the City diligently worked through these issues to develop and complete the exploratory drilling program. This program involved drilling of six exploratory boreholes with

Relevant Experience

- On-call hydrogeologic services
- Groundwater management
- Water resources assessment and planning
- Managed Aquifer Recharge evaluations
- SGMA compliance
- Grant application preparation
- GSA formation
- Grant agreement finalization
- Monitoring well location, design, and construction

Years Active: 2004 to Present

Todd Role: Prime Consultant

Budget: > $1,300,000

Key Staff
Chad Taylor, Maureen Reilly, and Phyllis Stanin

References

Mr. Tom Moody, General Manager
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geologic and geophysical logging, measurement of groundwater levels, and sampling for groundwater quality (general mineral quality, isotopic signatures, chemicals of concern). The field program resulted in installation of five new monitoring wells, identification of target areas favorable for new production wells, and recommendations for future groundwater development.

Since passage of SGMA in 2014, our work for the City has focused primarily on SGMA compliance and coordination with neighboring agencies. This has included assisting the City with a basin boundary modification which formally created the Bedford-Coldwater Groundwater Basin and modified the southern boundary of the Temescal Basin, formation of the Temescal Subbasin GSA, and securing a State grant for the City to prepare a GSP. Todd has also coordinated with the nearby water agencies regarding SGMA, including reviewing Orange County Water District's basin boundary modification and Alternative Plan and ongoing

participation in the neighboring Bedford-Coldwater GSA. Recently, Todd assisted the City in completing their grant agreement with DWR for GSP funding.

The City of Corona Dept. of Water & Power highly recommends Todd Engineers as a leader in groundwater planning, management, and protection of our water resources.

- Tom Moody

We have also been tracking regional and statewide groundwater management items on the City's behalf; Phyllis Stanin represents the City on the Association of California Water Agencies (ACWA) Groundwater Committee and we are following the development of the Upper Santa Ana River Integrated Model (Integrated SAR Model) by the Santa Ana Watershed Protection Authority (SAWPA). Recent work has included coordination of SGMA compliance, coordination with neighboring water agencies regarding groundwater management, and evaluation of environmental permitting for quarry operations.

SAN BENITO COUNTY WATER DISTRICT GROUNDWATER MANAGEMENT, ANNUAL GROUNDWATER CONDITIONS REPORTING, SGMA COMPLIANCE, BASIN BOUNDARY MODIFICATION, AND GSP PREPARATION

Relevant Experience

- SGMA planning and outreach
- Formation of GSA
- Grant application
- Basin boundary modification
- Groundwater model construction, calibration, and application
- GSP preparation

Years Active: 2006 to Present

Todd Role: Prime Consultant

Budget: $745,000

Key Staff
Chad Taylor, Maureen Reilly, and Gus Yates

Reference
Mr. Jeff Cattaneo, District Manager/Engineer
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The San Benito County Water District (SBCWD) manages water resources throughout San Benito County, including the Bolsa, Hollister, San Juan Bautista, and Tres Pinos Valley basins. SBCWD manages groundwater in these basins, which support agricultural, municipal, domestic, and environmental uses. SBCWD also provides imported Central Valley Project water for agricultural use and municipal use and collaborates with local agencies in water recycling and water conservation.

Todd Groundwater has been assisting SBCWD with groundwater management since 1988, including the 2002 Groundwater Management Plan and preparation of Annual Groundwater Reports since 2006. Since 2014, Todd also has assisted with support for SGMA compliance, involving a transition from historical management toward SGMA through the Annual Reports. Todd Groundwater also has provided specific SGMA assistance, including outreach and presentations, technical support for SBCWD to become the GSA for the basins, planning and technical support for a successful application to DWR for Sustainable Groundwater Planning grant funding, and successful application to DWR for basin consolidation.

Todd Groundwater currently is preparing the GSP. This has included coordination with DWR and close collaboration with GSA staff. Todd is providing technical support to outreach and agency coordination, including regular meetings with a Technical Advisory Committee and public workshops engaging local water and

planning agencies, regulatory agencies, landowners, and representatives of business, farming and environmental organizations. Technical work has involved data collection and review, description of the Plan Area, development of the hydrogeologic conceptual model, documentation of groundwater conditions, monitoring plan development, and definition of management areas, undesirable results, and minimum thresholds. The existing groundwater model is being updated, extended to the new basin boundaries, and refined for SGMA application.

KERN RIVER GROUNDWATER SUSTAINABILITY AGENCY (KRGSA) GSP, KERN COUNTY SUBBASIN

Relevant Experience

- Hydrogeologic conceptual model development
- Groundwater flow model refinement, calibration, and application
- Groundwater Monitoring Plan development
- Preparation of GSP

Years Active: 2015 to Present

Todd Role: Prime Consultant

Budget: $792,000

Key Staff

Chad Taylor, Phyllis Stanin, Maureen Reilly, and Mike Maley

Reference

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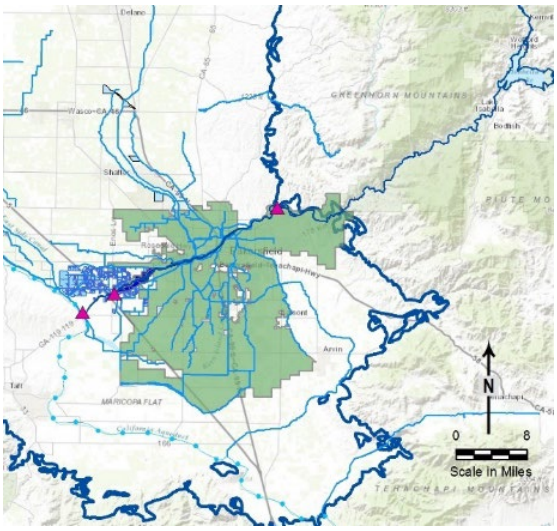
The KRGSA is the one of the first GSAs to form in the high-priority Kern County Groundwater Subbasin, where more than 50 water and irrigation districts, municipalities, water storage districts, the County, other local agencies, and mutual water companies rely on the shared groundwater resources. The proactive actions of the KRGSA have allowed the early formation of a governance structure and significant steps toward preparation of a GSP. Todd Groundwater, the technical consultant for the KRGSA, currently is preparing the GSP.

Todd Groundwater's approach is to develop a technically-credible plan guided by the GSP regulations, reliant on existing data and analyses to the extent practical and based on locally-appropriate best management practices for groundwater management. Todd is building on existing management planning documents and foundational data sets, with application of locally developed numerical models (the Kern Delta Water District Superposition Model) along with C2VSIM, the regional model of the California Central Valley developed by DWR. Todd also is assisting with agency collaboration and public outreach, and definition of measurable objectives and thresholds. Management actions and projects are being defined in the context of overall conjunctive use of surface water and groundwater, and adaptive management.



TURLOCK GROUNDWATER BASIN GROUNDWATER SUSTAINABILITY PLAN PREPARATION, STANISLAUS AND MERCED COUNTIES

Relevant Experience

- Hydrogeologic conceptual model development
- Groundwater flow model refinement, calibration, and application
- Groundwater Monitoring Plan development
- GSP Preparation

Years Active: 2015 to Present

Todd Role: Prime Consultant

Budget: $1,684,250

Key Staff
Phyllis Stanin

Reference

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The Turlock Basin GSAs have been managing groundwater in the Basin for decades. This high-priority basin has a long history of water and groundwater management and use, and the municipalities and agencies that make up the GSA are moving their management into the future through SGMA and their GSP.

Todd Groundwater is leading a team of professionals working with the GSAs and other stakeholders to prepare a high-quality GSP for the Basin. The team is using existing information to revise the hydrogeologic conceptual model, refine a previously completed numerical model, and evaluating sustainability and future groundwater management projects. The Todd-led team is also assisting the GSAs with outreach and coordination, measurable objective and threshold definition, and management action identification. This GSP is on target for delivery before the SGMA mandated deadline.

ARROYO SECO GSA GROUNDWATER SUSTAINABILITY PLAN PREPARATION, MONTEREY COUNTY

Arroyo Seco Groundwater Sustainability Agency occupies a unique situation in Salinas Valley Basin, as it overlies the alluvial fan of the Arroyo Seco, the last major tributary to the Salinas River before it meets the ocean. With this source of groundwater recharge (distinct from supplies from Nacimiento and San Antonio reservoirs), ASGSA has groundwater conditions and management objectives that differ significantly from other areas of the Salinas Valley Basin. Accordingly, the ASGSA decided to prepare its own Groundwater Sustainability Plan in accordance with SGMA.

Nonetheless, the GSA recognizes the need and requirement to coordinate its SGMA planning with other GSAs in the Salinas Valley Basin. The ASGSA retained Todd Groundwater to assist, including provision of technical support for finalizing GSA boundaries, developing a coordination agreement, and participating in meetings with the Salinas Valley Basin GSA. Todd Groundwater is also preparing the GSP, including organization of an ASGSA Data Management System, descriptions of plan area, hydrogeologic conceptual model, groundwater conditions, groundwater budgets. Several existing groundwater models of the Salinas Valley are available for use, including the Salinas Valley Integrated

Relevant Experience

- Groundwater flow model construction, calibration, and application
- Groundwater-Surface Water interaction assessment
- Preparation of GSP

Years Active: 2018 to Present

Todd Role: Prime Consultant

Budget: $377,000

Key Staff
Gus Yates

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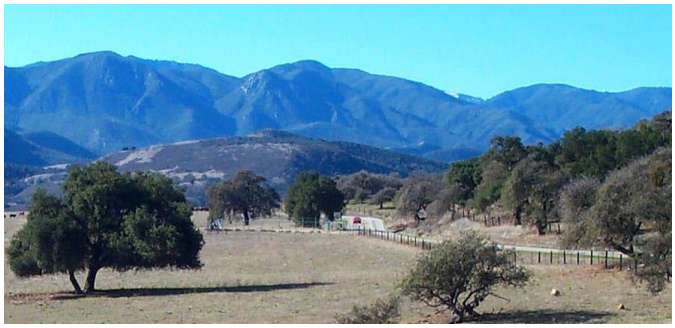
(831) 920-05015
cweeks@northtreefire.com

Hydrologic Model (SVIHM) developed by the U.S. Geological Survey (USGS); Todd's work includes peer review of modeling by Salinas Valley Basin GSA. The GSP effort also includes development of sustainability criteria, focusing on agriculture beneficial uses and habitat management along Arroyo Seco, an important steelhead stream.

Groundwater use and groundwater conditions in the Plan Area appear to already be sustainable in terms of local water levels, salinity and nitrate trends are being evaluated to reveal a need for management measures. GSP preparation also includes development of a monitoring program and implementation program for management actions, both of which build on existing activities.



While the local Salinas Valley Forebay is not critically overdrafted, other portions of the Salinas Valley are and need to complete a GSP by 2020. Recognizing the benefits of timely coordination, ASGSA's GSP is being fast-tracked for early completion.

GROUNDWATER RELIABILITY IMPROVEMENT PROGRAM (GRIP) INJECTION WELL MODELING, SITING, AND DESIGN, WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA (WRD)

Relevant Experience

- Hydrogeologic conceptual model development
- Groundwater flow model refinement, calibration, and application
- Groundwater Monitoring Plan development

Years Active: 20015 to Present

Todd Role: Prime Consultant

Budget: $70,000

Key Staff
Mike Maley

Reference

Mr. Ted Johnson
Chief Hydrogeologist, WRD
4040 Paramount Blvd.
Lakewood, CA 90712
(562) 921-5521
TJohnson@wrd.org

GRIP is a program with the goal of replacing increasingly expensive and uncertain imported water supplies with recycled water for recharge in the Montebello Forebay Spreading Grounds (MFSG). WRD is planning to build an advanced water treatment facility, which will produce fully advanced water treatment (AWT) recycled water for recharge. Currently a blend of tertiary-treated recycled water, local storm water, and imported water is recharged in the MFSG. Once AWT recycled water is produced, it will be blended with tertiary-treated recycled water for recharge. Because the spreading grounds can be filled to capacity with local storm water during wet periods, WRD is evaluating the feasibility of building injection wells, which would be available for recharge when the spreading grounds are full.

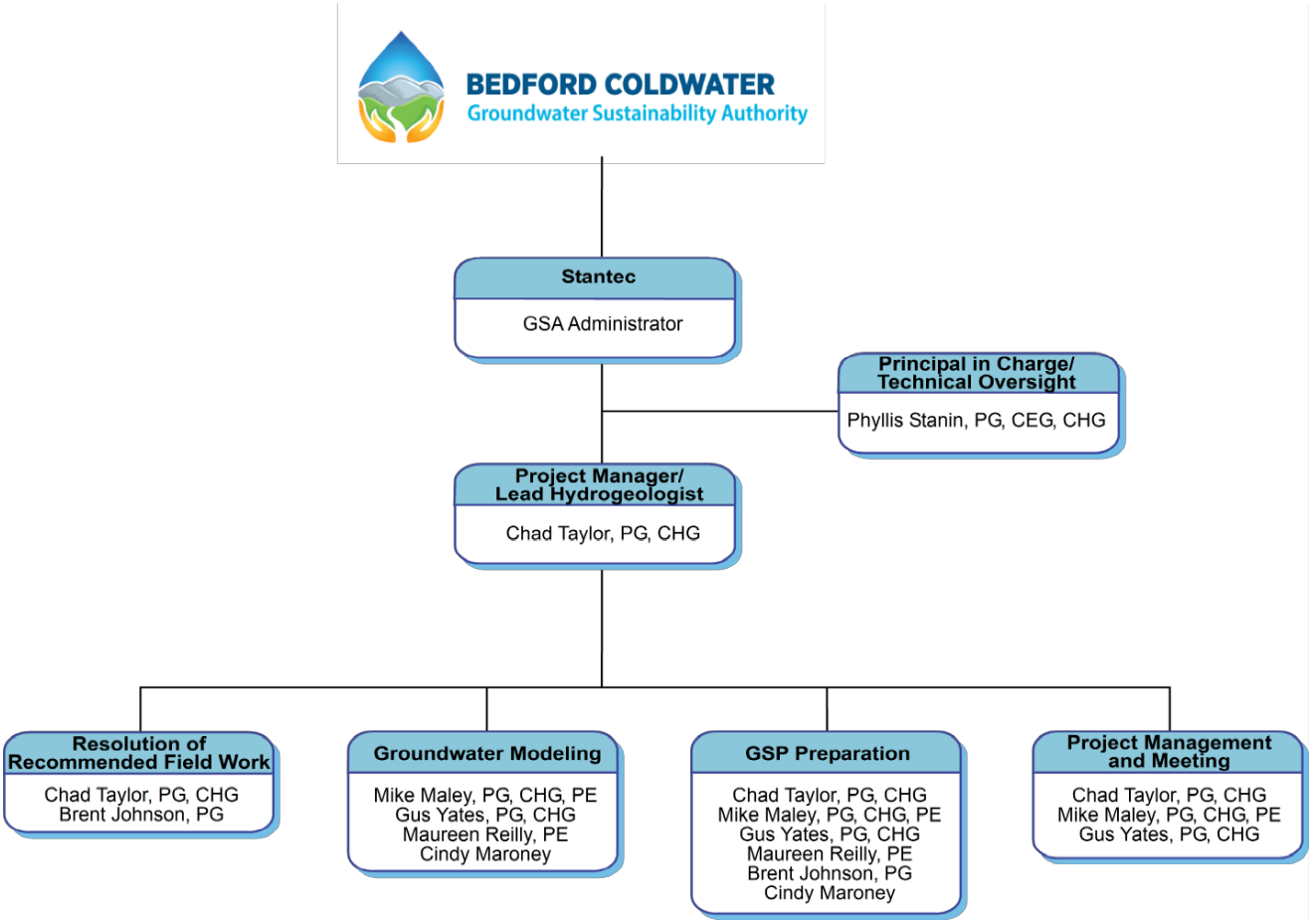
Todd Groundwater developed and calibrated a linked surface water and groundwater flow and transport model for previous studies in the area. The model was used to 1) help with well siting, 2) evaluate the travel time of injected recycled water to nearby potable supply wells to assess compliance with the Division of Drinking Water Groundwater Replenishment Using Recycled Water regulations, 3) to predict mounding near the wells and potential discharge of recycled water to the nearby San Gabriel River, and 4) to develop the optimal injection well design.

The modeling demonstrated that adequate separation exists between injection and nearby potable supply wells with proper well design and that groundwater mounding was not significant and recycled water would not discharge to the river.

3. KEY PROJECT PERSONNEL

Todd Groundwater proposes a select team who bring groundwater basin management experience, SGMA expertise, requisite technical skills, and knowledge of the Bedford Coldwater area.

3.1. ORGANIZATIONAL CHART



3.2. PROJECT TEAM

With extensive experience in preparing groundwater basin management plans and several GSPs nearly completion, the Todd team knows the qualifications and skills needed for preparation of a GSP. This team of hydrogeologists and engineers brings experience in water supply and demand analysis, hydrogeologic characterization, water quality assessment, water budget assessment, numerical modeling, data collection and management, report preparation, and public presentations: all needed to prepare a Groundwater Sustainability Plan. Moreover, the Todd Groundwater team brings experience with the region including Elsinore Valley and the City of Corona. This foundational understanding is critical given the tight schedule. Additional qualifications of our team and our firm can be provided, if needed.

Chad Taylor, PG, CHG

Chad Taylor, Senior Hydrogeologist at Todd Groundwater, will be the project manager and will lead the Resolution of Recommended Field Work and GSP Preparation tasks. He has solid working knowledge of hydrogeologic conditions and groundwater management in the Bedford Coldwater Basin, having prepared the basin boundary modification request that changed the basin boundaries and created the subbasin. This included review of previously completed hydrogeologic studies of the Elsinore basin and preparation of the first comprehensive conceptual model representing the entire basin. In addition, in 2018 Mr. Taylor was the Project Manager and Hydrogeologist in assisting the Bedford Coldwater GSA in collecting, compiling, and organizing the available data from all sources for preparation of their GSP. Mr. Taylor worked with the GSA and their administrators to collect available water supply, wastewater, hydrologic, hydrogeologic, and climate data from public and agency sources. He has also provided hydrogeologic support to the City of Corona and neighboring agencies for more than 10 years. Mr. Taylor is currently leading the development of key sections of GSPs for several other GSAs; he has been actively working on GSP planning including development of the Hydrogeologic Conceptual Model and other portions of the GSP for the newly formed North San Benito Basin.

Phyllis Stanin, PG, CEG, CHG

Phyllis Stanin, Vice President and Principal Geologist, is a recognized expert in hydrogeology and groundwater basin management. She will serve as the Principal in Charge and provide technical oversight for the project. Her experience includes development of several groundwater management plans (GMPs), including the 2008 GMP for the City of Corona. She has been involved with development of the SGMA since before its 2014 enactment (mostly through the Groundwater Committee of the Association of California Water Agencies) and has assisted the City of Corona with SGMA issues. She is engaged in completing several GSPs. Ms. Stanin is project manager for GSP preparation for the Kern River GSA, one of the first initiated in the critically-overdrafted Kern County Subbasin. Ms. Stanin is progressing through the hydrogeologic conceptual model; analysis of groundwater conditions; historical, current, and projected water budgets; sustainability criteria development, project analyses and modeling, and implementation of the plan, which is on-track for completion and submittal to DWR in early January. Ms. Stanin is also assisting other GSAs with GSP preparation in other areas of the Central Valley.

Mike Maley, PE, PG, CHG, CEG

Mike Maley is both a licensed professional geologist and civil engineer with over 30 years of experience in groundwater management and water resources, and recognized expertise in numerical modeling using various platforms including MODFLOW. Mr. Maley will be a key person on our GSP preparation team and will lead the Groundwater Modeling task. He is a wrapping up work basin wide modeling to support Kern County GSPs. Mr. Maley led groundwater model development utilizing C2VSim to evaluate GSP water budgets for groundwater and surface water, developed basin-wide historical water budgets for assessment of overdraft, and projected future scenarios, including climate change, to evaluate proposed SGMA management actions and projects for meeting sustainability goals. Through this work, he has evaluated the sustainable yield and groundwater quality for many heavily-used groundwater basins for groundwater management in California. This experience provides him with valuable insight into the hydrogeologic controls that influence groundwater flow and sustainability at multiple scales from large groundwater basins to local projects. Mr. Maley is very familiar with the hydrogeology and historical groundwater modeling in the region of Bedford Coldwater. He led the conversion of the current

Elsinore model to a flow and transport simulation for the evaluation of water quality impacts from septic systems.

Gus Yates, PG, CHG

Gus Yates, Senior Hydrologist at Todd Groundwater, is an accomplished hydrologist and water resources expert. He will lead the water budget subtask and contribute his considerable expertise to groundwater modeling, interconnected surface water and GDE analyses, and sustainability evaluation and criteria development. Mr. Yates has experience developing detailed customized local and regional surface water-groundwater budgets, numerical models, and surface water/GDE assessments for GSPs. He developed a regional groundwater flow and salinity model for the North San Benito Groundwater Basin and is using it to evaluate groundwater budgets and sustainability. He has developed a series of pre-processing tools that effectively simulated surface water groundwater interaction in locales with limited data. This soil moisture-based approach is ideal for a small basin such as Bedford Coldwater. He has experience with GSP analysis of groundwater connected to surface water and groundwater dependent ecosystems for the Basin through his work on the Arroyo Seco GSP (completing in late 2019) and the North San Benito County Basin GSP (water budget and modeling reaching completion late 2019). Mr. Yates is technically skilled with the ability to creatively and practically use data in combination with field investigations, computer models, statistics, and traditional analysis methods.

Maureen Reilly, PE

Maureen Reilly has 17 years of experience in groundwater, environmental, and information systems projects. She was the project engineer for City of Corona groundwater management plan and led the development of the numerical model of Temescal Valley in 2008. Ms. Reilly will support groundwater modeling, groundwater conditions, water budget, and multiple other portions of the project. Ms. Reilly is currently the project engineer for the North San Benito Basin GSP focusing on groundwater basin conditions and the water budget. She is on the project team for a variety of other GSPs, including leading the water budget and model input file preparation, revision, and calibration for the Kern River GSP and subbasin-wide sustainability modeling in the critically-overdrafted, high-priority Kern County Subbasin. Ms. Reilly has extensive experience in compiling, organizing, assessing, and preparing calculated estimates for water budget and groundwater model data resolving discrepancies for model revisions.

Brent Johnson, PG

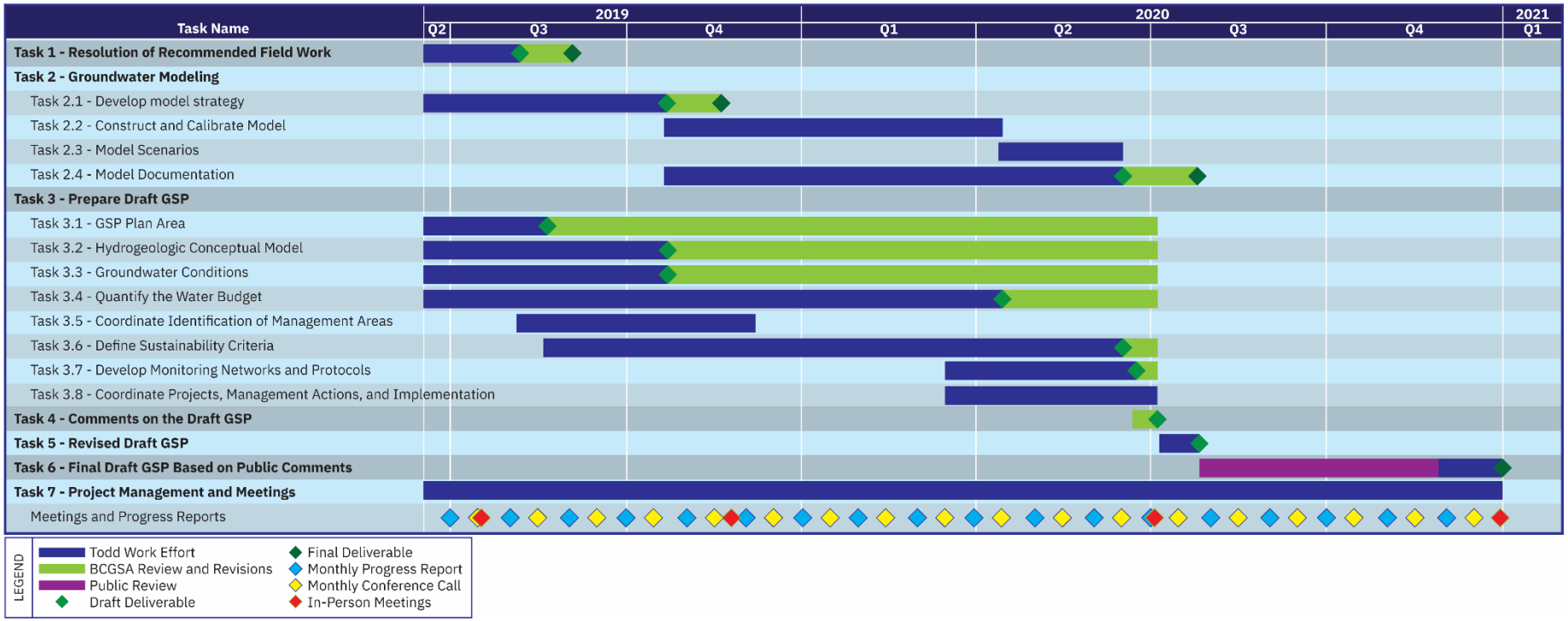
Mr. Johnson has more than five years of experience as a consulting geologist. He has extensive field experience that inform the resolution of field work recommendations to the BCGSA and he will provide support to the field work resolution and GSP preparation tasks. He is skilled in data management and water quality analysis and is applying those skills to preparation of GSPs including the North San Benito Basin GSP, Kern River GSA GSP, Turlock Subbasin GSP, and Modesto GSP.

Cindy Maroney, PhD

Dr. Maroney is an Iowa licensed geologist and civil engineer with seven years of consulting experience in water resources and environmental projects and eight years of groundwater research at the graduate level. She has experience supporting GSP development including the Cawelo GSP in Kern County and the Arroyo Seco GSP in Monterey County. Dr. Maroney has focused on water supply and demand for these GSPs, contributing to development of GSP sections on Plan Area and Water Budget.

4. PROJECT SCHEDULE

The project schedule shown below has been developed in response to the RFP and includes the requested items of work and project completion deadline of December 31, 2020:



While this schedule does meet the requested completion date, it will be challenging to achieve. Specifically, the schedule is largely driven by the construction and calibration of the numerical model and by the 90-day public review period required by SGMA. As noted in the Approach section of this proposal, a numerical model is the appropriate tool for the GSA to use to assess the water budget of the Basin and for the assessment of projects and management actions. Construction and calibration of a model suitable for these purposes takes time and effort. The reliance of these key GSP elements on the completed model forces them to late in the schedule. We envision this restricting the time available for the BCGSA, primarily in regard to the development of projects and management actions that relate to sustainability criteria, but also for developing an implementation plan that is responsive to the other aspects of the GSP. We note that the Grant Agreement has GSP development continuing through the end of June 2021, and we recommend the BCGSA consider extending the schedule for an additional four to six months. We believe this would result in a more robust GSP.

PROJECT TEAM RESUMES

Chad N. Taylor, PG, CHG
Senior Hydrogeologist

EDUCATION

BS, Earth Sciences, University of California Santa Cruz, 1999

REGISTRATIONS

Professional Geologist California, No. 8443
Certified Hydrogeologist California, No. 915

PROFESSIONAL SUMMARY

Mr. Taylor is a licensed Professional Geologist and Certified Hydrogeologist with over 19 years of experience in groundwater basin management, sustainable groundwater management, conceptual hydrogeologic model development, water supply planning and exploration, protection of groundwater resources, design of water supply wells, and soil and groundwater contamination investigations. Mr. Taylor has worked on groundwater projects throughout California and Colorado and has a very strong working knowledge of the hydrogeology and regulatory framework in both states. Mr. Taylor is a native of California, having grown up in the foothills of Fresno County, where he has strong ties to local groundwater issues. Mr. Taylor has been responsible for a range of projects involving groundwater basin evaluations, groundwater resource assessment and management, design and installation of water supply wells, analysis of large and complex datasets, aquifer test data, geographic datasets, and groundwater flow modeling. Mr. Taylor specializes in developing meaningful and useful conceptualizations of groundwater systems. These include three-dimensional representations, unique customized analytical tools, and numerical groundwater models.

Sustainable Groundwater Management, San Benito County Water District
San Benito County Water District actively manages groundwater resources in the newly formed North San Benito Basin (formerly the San Juan, Bolsa, Hollister, and Tres Pinos Valley basins). Mr. Taylor has served as the Project Hydrogeologist for the District for many years, assisting them with a variety of groundwater management projects. With passage of SGMA in 2014, the District initiated SGMA planning, which has included evaluation of groundwater basin boundaries and a successful application for consolidation of the four groundwater basins. As of 2018, the District has become a GSA, secured grant funding for GSP preparation (with Todd Groundwater assistance), and progressed with GSP planning. Mr. Taylor is leading the development of a unified hydrogeologic conceptual model of the newly consolidated basin and is working closely with District staff to evaluate and update their groundwater monitoring program. Mr. Taylor also prepared and coordinated the application to consolidate

four previously defined groundwater basins into the newly formed North San Benito Basin. This change will allow the District to prepare a single GSP for sustainable management of the area. The GSP is well underway; Mr. Taylor has provided draft GSP sections, organized and participated in Technical Advisory Committee meetings, and provided technical support to stakeholder outreach.

Sustainable Groundwater Management, City of Corona

Todd Groundwater prepared the City of Corona groundwater management plan, which was adopted in 2008, and has been providing on-call hydrogeologic support to the City for over ten years. Mr. Taylor has provided hydrogeologic expertise to the City on a variety of projects, including initial SGMA compliance. Mr. Taylor assisted the City along with their partners EVMWD and TVWD in modifying the Temescal and Elsinore basin boundaries and in the creation of the Bedford-Coldwater basin through a scientific basin boundary modification in accordance with SGMA, Water Code, and DWR requirements. Mr. Taylor also assisted the City in forming a GSA, and securing a grant from the State for preparation of a GSP for the Temescal Basin.

GSP Data Collection and Organization for Bedford-Coldwater GSA, Riverside County, CA

Mr. Taylor was the Project Manager and Hydrogeologist in assisting the Bedford Coldwater GSA in collecting, compiling, and organizing the available data from all sources for preparation of their GSP. Mr. Taylor worked with the GSA and their administrators to collect available water supply, wastewater, hydrologic, hydrogeologic, and climate data from public and agency sources. These data were compiled into unified database and geodatabase formats and comprehensively documented into a data management system (DMS) to facilitate future use in the preparation of the GSP. Mr. Taylor has worked closely with the GSA to finalize the data collection and compilation task. Mr. Taylor also assisted the agencies in the formation of the GSA.

Kern River GSA SGMA GSP Preparation, Kern County, California

The Kern River GSA (including City of Bakersfield, Kern Delta Water District, and Kern County Water Agency Improvement District Number 4) is one of the first organized in the critically-overdrafted, high-priority Kern County Subbasin. Mr. Taylor is Project Hydrogeologist on the team preparing the GSP. He has helped formulate the hydrogeologic conceptual model and has assisted with regional groundwater modeling, water balance calculations, and preparation of the GSP report, which is progressing rapidly toward completion of the draft in 2019 and adoption before the January 2020 deadline.

Vista Irrigation District (VID) Warner Valley Groundwater Basin Groundwater Assessment, San Diego County, California

Mr. Taylor is currently serving as Project Hydrogeologist for the groundwater assessment of the Warner Valley. Vista Irrigation District (VID) is the largest landowner and water user in the Basin. VID operates Lake Henshaw Reservoir, into which VID pumps groundwater to serve customers, the City of Escondido (City), and other smaller users. The investigation included updated analysis of Basin hydrogeology, development of a numerical groundwater flow model, and simulation of scenarios including climate change and increased pumping.

Phyllis Stanin, PG, CEG, CHG

Vice President and Principal Geologist

EDUCATION

MS, Environmental Management, Hydrogeology thesis, University of San Francisco, 1999
BS, Geology, University of North Carolina, 1978

REGISTRATIONS

Professional Geologist California, No. 5311
Certified Engineering Geologist California, No. 1899
Certified Hydrogeologist California, No. 482
Registered Geologist Arizona, No. 45605

PROFESSIONAL SUMMARY

Phyllis Stanin has been a professional geologist for more than 35 years with expertise in hydrogeology and groundwater basin management, and a particular emphasis on managed aquifer recharge (MAR) and conjunctive use. She also has experience with groundwater resource development including production and injection wells, geophysical applications, aquifer testing, and monitoring. She has conducted numerous regional hydrogeologic assessments using advanced analytical and numerical modeling tools. Her experience also includes development of several groundwater management plans (GWMPs), including the 2008 GWMP for the City of Corona. She has been involved with development of the Sustainable Groundwater Management Act (SGMA) since before its 2014 enactment (mostly through the Groundwater Committee of the Association of California Water Agencies), and is engaged in completing several Groundwater Sustainability Plans (GSPs) for Groundwater Sustainability Agencies (GSAs) in critically overdrafted basins.

Groundwater Sustainability Plan and Subbasin Modeling, Kern River GSA
Ms. Stanin is project manager for GSP preparation for the Kern River GSA, one of the first initiated in the critically-overdrafted Kern County Subbasin. Ms. Stanin is progressing through the hydrogeologic conceptual model; analysis of groundwater conditions; historical, current, and projected water budgets; sustainability criteria development, project analyses and modeling, and implementation of the plan. Todd Groundwater is also leading development of a subbasin-wide groundwater model to provide coordinated subbasin water budgets as

required by GSP regulations. The Kern Groundwater Authority and other GSAs in the subbasin are participating in this effort by providing water budget data for model revisions.

SGMA Alternative Plan, Zone 7 Water Agency

Zone 7 Water Agency has been actively managing the Livermore Valley Groundwater Basin for decades. Given its successful management, in 2016, Zone 7, with Todd Groundwater assistance, completed an Alternative Plan, functionally equivalent to a GSP. Ms. Stanin, as project manager, assisted Zone 7 staff with the overall approach to Alternative Plan preparation, reviewed numerous documents for integration into the Plan, and wrote substantial sections, including refinement of thresholds and definition of undesirable results.

Groundwater Management and Support for SGMA, City of Corona, Elsinore Valley Municipal Water District, and Temescal Valley Water District, Riverside County, California

Ms. Stanin has had the opportunity to assist the City of Corona with numerous groundwater planning projects through more than 14 years. These included preparation of the GWMP for the Temescal and Bedford-Coldwater Basins, numerous groundwater recharge and resources development tasks, and preparation for SGMA compliance. Recent SGMA related projects included technical support for GSA formation for the three groundwater basins overlapping the City's water service area. She has also prepared resolutions and outreach material to support the GSA process. In 2016, she led a successful basin boundary modification for the City, Elsinore Valley Municipal Water District, and Temescal Valley Water District using scientific and jurisdictional rationale for the creation of a new Bedford-Coldwater Subbasin to facilitate SGMA activities. She has also reviewed basin boundary modification requests by other agencies in adjacent subbasins and assessed potential impacts of those requests on future GSPs; this include technical support and review of an Alternative Plan prepared by Orange County Water District for a portion of the Orange County Groundwater Basin.

Technical Support for SGMA and Preparation of Groundwater Sustainability Plan, Turlock Groundwater Basin Association (TGBA), Stanislaus and Merced Counties, California

Ms. Stanin has organized and is leading a multi-consultant team to assist TGBA with SGMA compliance. Beginning in 2016, this assistance has included development of a Planning Document to guide SGMA compliance, development of a Data Management System, analysis and recommendation of technical approaches (e.g., for modeling), assistance with public outreach and agency collaboration, development of a fiscal strategy, and assistance with preparation of a grant funding application. As of 2019, the consultant team is preparing the GSP for the West Turlock Subbasin GSA; several draft chapters are complete, revision and testing of the numerical surface water-groundwater model is ongoing, a Technical Advisory Committee is fully engaged, and several public workshops have been conducted.

Technical Support for SGMA and GSP preparation, Modesto Subbasin, Stanislaus County

Since 2016, Ms. Stanin has been assisting the Stanislaus and Tuolumne Rivers Groundwater Basin Association Groundwater Sustainability Agency (STRGBA GSA) with SGMA compliance for the Modesto Subbasin. In 2017, she assisted with formation of the GSA and preparation of a successful application for the Sustainable Groundwater Planning grant program. As of 2019, she is guiding preparation of the GSP for the STRGBA GSA; numerical model development, data compilation, and preparation of Basin Setting sections are underway.

Michael P. Maley, PE, PG, CHG, CEG

Senior Hydrogeologist

EDUCATION

MS, Geological Engineering, University of Missouri – Rolla, 1987
MS, Geology, University of Oklahoma, 1986
BS, Geology, Texas Christian University, 1983

REGISTRATIONS

Professional Engineer, Civil, California, No. 53424
Professional Geologist, California, No. 5270
Certified Hydrogeologist, California, No. 654
Certified Engineering Geologist, California, No. 1869

PROFESSIONAL SUMMARY

Mr. Maley is both a licensed professional geologist and civil engineer with over 30 years of experience in groundwater management, water resources, regulatory support and environmental projects. His extensive water resources experience includes groundwater basin evaluations, sustainable yield estimates, water quality evaluations, groundwater-surface water interactions, and groundwater recharge programs. Through this work, he has evaluated the sustainable yield and groundwater quality for many heavily-used groundwater basins for groundwater management plans in California. Mr. Maley is a specialist at applying groundwater models using MODFLOW-MT3D, GSFLOW, IWFM and FEFLOW. He has demonstrated the capability to successfully calibrate complex models through close attention to the physical processes that govern groundwater flow and contaminant transport. Models developed by Mr. Maley have undergone rigorous peer, regulatory, and expert review. Through his experience, he has provided valuable insight into the hydrogeological controls that influence groundwater flow from large groundwater basins to local engineering projects.

Water Quality Evaluation, Elsinore Valley Municipal Water District
Mr. Maley used an existing MODFLOW/MT3D numerical model to evaluate nitrate transport within the enclosed groundwater basin. He characterized nitrate sources (primarily septic tanks) within the basin to evaluate future nitrate trends at municipal production wells and presented his findings to RWQCB regarding long-term groundwater quality impacts.

Groundwater Sustainability Plan (GSP), Cawelo Water District GSA

Mr. Maley is project manager and lead hydrogeologist for developing a GSP for Cawelo Water District GSA in the critically-overdrafted Kern County Subbasin. He is working closely with District staff to develop GSP before the 2020 deadline. This effort also includes modification and application by Mr. Maley of the C2VSim model for the Subbasin and significant coordination with the other GSAs on water budget and modeling issues.

Kern County Subbasin SGMA Water Budget Modeling, Kern River GSA

Mr. Maley led groundwater model development utilizing C2VSim to evaluate SGMA water budgets for groundwater and surface water. Developed basin-wide water historical water budgets for assessment of overdraft, and developing projected future baselines including climate change scenarios to evaluate proposed SGMA management actions and projects for meeting sustainability goals.

Groundwater Sustainability Plan (GSP), James Irrigation District

Mr. Maley is project manager and lead hydrogeologist for development of a GSP for James Irrigation District in the critically-overdrafted Kings Subbasin. He has developed a GSP team at Todd Groundwater with relevant specialties in GIS, hydrogeology, water quality, climate change, monitoring and management, and is working closely with District staff to develop the GSP following DWR guidelines and coordinating with other GSAs in the Kings Subbasin.

Kern River Water Allocation Plan (WAP) Supplemental EIR, Kern Delta Water District

Mr. Maley evaluated groundwater impacts from a series of prioritized management actions for the full use of available river water allocation for irrigation and recharge on groundwater conditions using a MODFLOW superposition model based on the USGS Central Valley Hydrologic Model (CVHM).

Whittier Narrows Groundwater Modeling

Mr. Maley used an existing FEFLOW model to evaluate the travel time of injected recycled water at the Water Replenishment District of Southern California Advanced Water Treatment (AWT) facility to nearby potable supply wells. The model evaluated potential discharge of recycled water to San Gabriel River.

Groundwater Recharge Feasibility Study, Palmdale Water District

Mr. Maley conducted detailed hydrogeologic evaluations to evaluate potential groundwater recharge sites along Little Rock Wash utilizing recycled and aqueduct water. He adapted the USGS Antelope Valley MODFLOW model to evaluate bank operations, water quality issues, and mounding to support the feasibility study and engineering design. Developed well spacing criteria based on land subsidence modeling.

Groundwater/Salt and Nutrient Management Plans, Twentynine Palms Water District

Mr. Maley conducted comprehensive study of the Mesquite Lake Groundwater Basin to evaluate geology, water budget, groundwater recharge, and groundwater storage change. He developed basin-wide MODFLOW model to evaluate shifting groundwater pumping to improve long-term water supply. He prepared Groundwater Management Plan and Salt and Nutrient Plan to assess potential groundwater resources.

Eugene B. (Gus) Yates, PG, CHG

Senior Hydrologist

EDUCATION

MS, Water Science, University of California Davis, 1985
BA, Geology, Harvard University, 1979

REGISTRATIONS

Professional Geologist California, No. 7178
Certified Hydrogeologist California, No. 740

PROFESSIONAL SUMMARY

Gus Yates is an accomplished hydrogeologist and water resources expert. His 30 years of experience—initially with the USGS and also as a consulting hydrogeologist—has been science-based and focused on projects that require critical thinking skills and the application of hydrologic principles and methods. Mr. Yates is technically skilled with the ability to creatively and practically use data in combination with field investigations, computer models, statistics, and traditional analysis methods. He is recognized for his breadth of knowledge in multiple disciplines—including soils, geology, geomorphology, climatology, land use, water use, agronomy, vegetation ecology, fisheries biology, and riparian ecology—and for his comprehension of the critical aspects of complex natural hydrologic and water supply systems. He routinely works with public agencies, private-sector clients, and non-profit groups in groundwater and surface water hydrology, biohydrology, and water resources management, including development of Groundwater Sustainability Plans (GSPs). He is an acknowledged expert in basin yield analysis, groundwater modeling, quantification of groundwater budgets, groundwater surface water interactions, groundwater dependent ecosystems, and evaluation of groundwater quality.

Groundwater Management and Modeling, San Benito County Water District
For many years Mr. Yates has provided hydrogeologic expertise to the District, which has responsibility for management of groundwater basins in San Benito County, which encompass the Cities of Hollister and San Juan Bautista and intensively farmed areas. The District manages local surface water, imported Central Valley Project Water, groundwater, and recycled water, and currently is preparing a GSP. Mr. Yates led the preparation of the District's first AB3030 Groundwater Management Plan, has participated in preparation of the annual groundwater reports, and has also conducted specific investigations. Mr. Yates developed a

regional groundwater flow and salinity model for the Hollister basin with MODFLOW and MT3DMS. The model draws on an extensive database of pumping, water-level, and salinity information. With periodic refinements, Mr. Yates has applied the model over the past 10 years to evaluate long-term salinity trends, impacts of wastewater recycling, and alternative conjunctive use strategies to manage water quality and shallow groundwater levels. Currently, Mr. Yates is refining the groundwater model for the GSP and using it to evaluate groundwater budgets and sustainability. He is also leading the analysis of groundwater connected to surface water and groundwater dependent ecosystems for the Basin.

Groundwater Sustainability Plan, Arroyo Seco GSA, Monterey County

The Arroyo Seco is the largest tributary to the Salinas River and provides local recharge that is more reliable during droughts than Salinas River recharge. Local agricultural and urban interests formed a GSA to assert their relatively sustainable groundwater conditions. Mr. Yates is project manager for preparing the GSP, serving as technical analyst, facilitator for stakeholder discussions and GSP author. Groundwater-surface water interconnection has been a key topic because Salinas River reservoir releases strongly influence groundwater levels in part of the Arroyo Seco GSA area and because data showed that fish and riparian vegetation were potentially more affected by groundwater pumping than local stakeholders thought. Mr. Yates led a science-based outreach process drawing on multiple lines of evidence and analysis that kept stakeholders on the same page and committed to managing groundwater pumping in a way that does not adversely impact stream flow and groundwater dependent ecosystems while maintaining an agricultural economy and community.

Peer Review for Sustainable Groundwater Management, Paso Robles Groundwater Basin

The Paso Robles groundwater basin is ranked as high priority and critically overdrafted under SGMA and a GSP is underway. Mr. Yates is a respected expert in the basin who has worked toward collaborative management with San Luis Obispo County, the City of Paso Robles, and other agencies. He completed a technical review of basin boundaries, peer-reviewed a new groundwater flow model, and evaluated management hurdles stemming from the legal separation of river underflow from percolating groundwater. Throughout the process, he has endeavored to keep all involved consultants and experts in agreement, so that the stakeholder discussions focus on important legal and management issues. He has been providing peer review services to San Luis Obispo County as the GSP is being prepared.

Evaluation of Groundwater Conditions, Indian Wells Valley, Kern County

Groundwater elevations have been declining for decades in this desert basin, yet a few of the numerous technical reports completed during that period concluded that groundwater yield was ample and that declines were merely local. A recent expansion of irrigated agriculture renewed fears of overdraft. Working for Kern County Planning Department, Mr. Yates reviewed previous studies, completed additional analyses, and refuted the assertions that the basin receives recharge from bedrock in the high Sierra. Local stakeholders were polarized regarding the state of the basin, occurrence of overdraft, and the necessity of water and land use management. Substantial progress was achieved through presentations by Mr. Yates, discussion at public workshops, and a clearly-written and accessible report. The basin subsequently was deemed by the California Department of Water Resources as critically overdrafted, and local agencies are collaborating for compliance with SGMA.

Maureen K. Reilly, PE

Senior Engineer

EDUCATION

MS, Environmental Engineering, University of California Berkeley, 2002
BS, Systems Engineering, University of Virginia, 2001

REGISTRATIONS

Professional Civil Engineer California, No. C67841
Professional Civil Engineer Texas, No. 109539
Water Use Efficiency Practitioner Grade 1, Cert. No. 1891

PROFESSIONAL SUMMARY

Maureen Reilly has 17 years of experience in groundwater, environmental, and information systems projects. She is experienced in analytical and semi-analytical groundwater modeling programs, numerical methods, water quality analysis, monitoring, data management, and reporting in the context of groundwater basin management, including compliance with the Sustainable Groundwater Management Act (SGMA) and preparation of Groundwater Sustainability Plans (GSPs). Ms. Reilly has participated in a variety of projects, including the following.

Sustainable Groundwater Management, San Benito County Water District
San Benito County Water District actively manages groundwater resources in the newly formed North San Benito Basin (formerly the San Juan, Bolsa, Hollister, and Tres Pinos Valley basins). Ms. Reilly has served as the Project Engineer for the District for many years, assisting them with a variety of groundwater management projects and has served as the lead author of the Annual Groundwater Reports since 2006. With passage of SGMA in 2014, the District initiated SGMA planning, which has included evaluation of groundwater basin boundaries and a successful application for consolidation of the four groundwater basins. As of 2018, the District has become a GSA, secured grant funding for GSP preparation (with Todd Groundwater assistance), and progressed with GSP development. Ms. Reilly has assessed and organized available data for the GSP and is assisting with development of a monitoring program. She has been a key author for the basin conditions setting, has contributed to definition of management areas and sustainability criteria, and is leading the development of

the updated water balance. Ms. Reilly has provided draft GSP sections, organized and participated in Technical Advisory Committee meetings, and has provided technical support to stakeholder outreach, including workshops and assistance to outreach consultants in developing technically accurate flyers and website material.

Groundwater Sustainability Plan and Subbasin Modeling, Kern River GSA

Ms. Reilly is project engineer for preparation of the GSP for the Kern River GSA, one of the first to begin GSP preparation in the critically-overdrafted, high-priority Kern County Subbasin. Ms. Reilly is focused on the water balance section of the GSP. Todd Groundwater is also leading the effort to develop a subbasin-wide groundwater model to provide coordinated subbasin water budgets as required by GSP regulations. This has involved provision by the Kern Groundwater Authority and other GSAs of their respective water budget data. Ms. Reilly has been central to compiling, organizing, and assessing these data sets and resolving discrepancies for model revisions (2016-present). Ms. Reilly also is assisting with development of data input files for the model and model calibration.

Groundwater Banking, Kern County

Ms. Reilly served as Project Engineer for the evaluation of groundwater banking operations in Kern County, California. This project involved the development of a comprehensive groundwater model to assess the effects of the largest groundwater banking project in the world. Ms. Reilly has developed a comprehensive water balance detailing the inflow and outflow to the project area. The water balance includes calculation of agricultural, municipal, industrial, and groundwater banking activities. Ms. Reilly worked to construct a detailed numerical groundwater model to evaluate the impacts of banking on other water users in the area. Ms. Reilly continues to run a variety of scenarios to quantify the impact from the managed recharge projects in the area.

Groundwater Management Plan, City of Corona

As Project Engineer for the Groundwater Management Plan, Ms. Reilly focused on a detailed water balance of three groundwater subbasins including accounting of changes in land use and return flows over time, basin-wide water level analyses and mapping, and a water quality assessment. Ms. Reilly also led the development of a numerical model used to evaluated 18 potential management strategies. The final plan, adopted in 2008, has been used to guide groundwater management activities exploration for recharge basins and new wells. Todd Groundwater also has assisted the City with SGMA planning.

Urban Water Management Plan, Hollister Urban Area

Ms. Reilly was project manager for the Hollister Urban Area 2015 and 2010 Urban Water Management Plan (UWMP) prepared in accordance with California Department of Water Resources guidelines. These UWMPs were prepared on behalf of the City of Hollister, Sunnyslope County Water District, the Water Resources Association of San Benito County, and the San Benito County Water District. The projects involved compilation of data for the evaluation of current, past, and future water demand and comparison to available sources of supply in the future. A key component of UWMPs is the development of strategies for water conservation and protection.

Brent M. Johnson, PG
Associate Geologist

EDUCATION

MS, San Jose State University, Geology, 2014
BS, The Ohio State University, Geological Sciences, 2008

REGISTRATIONS

Professional Geologist California, No. 9484

PROFESSIONAL SUMMARY

Mr. Johnson has more than five years of experience as a consulting geologist. He has extensive field experience that includes soil and groundwater sample collection; well drilling oversight using rotary (direct and reverse), sonic, hollow stem auger, and direct push drilling methods; lithologic logging, well design and construction; and groundwater level monitoring. In addition, he is skilled in data management and water quality analysis and is applying those skills to preparation of Groundwater Sustainability Plans (GSPs) among other efforts. He also has managed and conducted remedial site investigations and environmental assessments. Mr. Johnson has participated in a variety of projects, including the following:

GSP Data Collection and Compilation, Bedford-Coldwater Groundwater Sustainability Agency (GSA), Riverside County
The Bedford-Coldwater GSA is proceeding with preparation of a GSP for their groundwater basin. The first step toward that process was to collect and prepare data and information that will form the basis of the GSP. Mr. Johnson researched and compiled climate, rainfall, and geologic data for this purpose and assisted in the organization of those data into a set of unified databases.

Turlock Subbasin Groundwater Sustainability Plan (GSP), City of Turlock
The East and West Turlock Subbasin Groundwater Sustainability Agencies agreed to cooperatively manage groundwater and develop a GSP in accordance with the Sustainable Groundwater Management Act (SGMA). Mr. Johnson has served as an Associate Geologist on this project, which involved developing a database of municipal wells, processing well lithology data obtained from the United States Geologic Survey, generating spatial datasets in a Geographic Information System (GIS) database, and creating geologic cross-sections of the Turlock Subbasin.

Vista Irrigation District, Warner Valley Groundwater Basin Assessment

Mr. Johnson served as an Associate Geologist on the team that prepared a new conceptual model for the Warner Valley Groundwater Basin in San Diego County. Mr. Johnson compiled, digitized, and geolocated hydrogeologic data used to prepare a conceptual model. These data supported the development of detailed lithologic, hydrostratigraphic, and numerical models. The results of these model were instrumental in preparing groundwater availability assessments and are being used to optimize pumping to sustainably pump Vista Irrigation District's well field.

San Benito Groundwater Sustainability Plan, San Benito County Water District

Mr. Johnson has served as Associate Geologist in support of the Todd Groundwater team and the San Benito GSP development. Mr. Johnson requested and evaluated Department of Water Resources (DWR) Well Completion Reports and generated a GIS database of well locations. These well locations and associated lithologic information were used to determine placement of cross section transects and are being used to form the basis of a three-dimensional representation of the groundwater basin as part of a comprehensive hydrogeologic conceptual model. He also has contributed to analysis of subsidence and has helped identify surface water features connected to groundwater.

Antelope Valley Watermaster Engineer, Kern, Los Angeles, and San Bernardino Counties

Mr. Johnson is part of the Todd Groundwater team personnel serving as the Watermaster Engineer for the adjudicated Antelope Valley Groundwater Basin, adjudicated by the courts in December 2015. Duties and responsibilities of the Watermaster Engineer were developed in accordance with the Judgment, and in 2017 Todd Groundwater initiated implementation of the Judgement. As part of the judgement, pumpers were required to install water meters and provide documentation of the installation. Mr. Johnson reviewed water meter installation documentation to ensure it met the requirements as set forth in the Judgment. Additionally, Mr. Johnson assisted by compiling annual depth to groundwater readings into a database used to calculate changes in groundwater elevation. He also maintains a spatially located database that tracks the type of applications received and approval status. This work will serve as the foundation of successful groundwater management of the adjudicated basin.

Pure Water Monterey Phase 2, Groundwater Replenishment Project, Monterey One Water

The Pure Water Monterey (PWM) Project was developed to recharge the Seaside Groundwater Basin by injecting 3,500 acre-feet per year of advanced treated recycled water. Mr. Johnson has served as a Field Hydrogeologist during mud-rotary, reverse rotary, and sonic drilling activities. He was responsible for borehole sampling, lithologic logging, well construction observation, and documentation of development for multiple monitoring wells, a deep injection well, and a vadose zone well.

Sonoma Stormwater Recharge Potential, Sonoma Creek, Petaluma River and Russian River Watersheds, Sonoma County Water Agency (SCWA)

Mr. Johnson served as Field Hydrogeologist for a well siting investigation to assess the potential groundwater recharge/storage benefits of identified potential projects. Mr. Johnson assisted in selecting boring locations based on geophysical data, site geography, and subsurface boring logs.

Cynthia L. Maroney, PhD, PE, RG

Staff Engineer

EDUCATION

PhD, Civil (Environmental) Engineering, Iowa State University –2017
MS, Civil (Environmental) Engineering, Iowa State University –1994
BS, Geology, Iowa State University –1986

REGISTRATIONS

Professional Engineer (PE), Iowa, Civil, No. P15060
Registered Geologist (PG), Missouri, No. 1002

PROFESSIONAL EXPERIENCE SUMMARY

Dr. Maroney is both a licensed geologist and civil engineer with seven years of consulting experience in water resources and environmental projects and eight years of groundwater research at the graduate level. Her professional experience includes groundwater well siting, installation, testing and wellhead protection; groundwater-surface water interactions; groundwater conceptual model development and groundwater modeling. Her academic experience focused on surface water-groundwater interactions, sustainable groundwater planning and groundwater flow and fate and transport modeling. Dr. Maroney is a specialist at applying groundwater models using MODFLOW-MT3D including simulation of surface water-groundwater interactions.

Groundwater Sustainability Plan (GSP), Cawelo Groundwater Sustainability Agency (GSA)
Located in the critically-overdrafted, high priority Kern County Groundwater Subbasin, the Cawelo GSA seeks to continue and improve its historically-comprehensive and effective water management activities, while cooperating with the other GSAs in the subbasin. Todd Groundwater currently is assisting the Cawelo GSA with the development of the Cawelo GSP, which is using the Kern Groundwater Authority (KGA) format. This will support incorporation of the Cawelo GSP into the regional GSP being coordinated by the KGA. The Cawelo GSP is well underway and the draft is slated for completion in 2019. Dr. Maroney has focused on water supply and demand, contributing to development of GSP sections on Plan Area and Water Budget.

Bodega Bay Well Monitoring and Reporting Program 2016-2020
The Bodega Bay Public Utilities District (BBPUD) initiated a monitoring and reporting program for the Dunes and Roppolo well fields which are in the San Andreas Rift Zone in the sand dune area that connects Bodega Head with the mainland. Todd Groundwater has assisted BBPUD by

developing and implementing the comprehensive groundwater monitoring and reporting program for the two well fields. Dr. Maroney compiled and evaluated rainfall data, pumping data along with water level, EC, and water quality data from the Dunes and Roppolo wells and recently installed Bay Flat Road Well for the 5th Groundwater Monitoring Report. Dr. Maroney reviewed and discussed key trends and relationships between groundwater pumping, water levels, and water quality and recommended updated monitoring and operation protocols.

Radial Collector Well Planning and Testing, City of Olathe, Kansas

In response to declining yields in its 40-year-old well field along the Kansas River, the City has turned to horizontal collector wells to replace old vertical wells and maintain capacity for its system. Dr. Maroney collaborated on a 10 million gallon per day (MGD) radial collector well project. Her work included proposal preparation, site testing coordination, collection and analysis of cable tool drilling data, supervision and installation of a 24-inch test well, performance and evaluation of aquifer tests, groundwater modeling, preparation of specifications and drawings, bids review, construction administration, and final well testing to provide water for a water treatment plant expansion.

Water Resources Study, US Fish and Wildlife Service, Quivira National Wildlife Refuge, Kansas

Dr. Maroney served as geological engineer for a comprehensive water resource study of the Quivira Wildlife Refuge to aid in water resource and ecosystem management. A critical issue was the dependability of water supply to the refuge during dry periods and during key habitat periods such as spring and fall bird migrations. Groundwater flowing into Big Salt Marsh provides an important and timely source of water. Dr. Maroney focused on analysis of groundwater supply that included performance of detailed groundwater modeling of Big Salt Marsh using MODFLOW and considered various modifications to on-site operations to conserve water for key periods.

Groundwater Storage and Recovery, City of Wichita, Kansas

Facing recurring drought and water quality issues, the City of Wichita developed the Equus Beds Aquifer Storage and Recovery (ASR) project to treat water from the Little Arkansas River during high-flow periods, inject the treated flow into the overdrawn Equus Beds aquifer, and recover the supply when needed. Dr. Maroney participated in this project—the first ASR project in Kansas—providing refinement and expansion of groundwater flow and transport models using MODFLOW and MT3D.

Surface Water-Groundwater Modeling, Iowa State University, Ames, Iowa

Dr. Maroney developed three analytical models, produce Matlab code, and evaluated results. The modeling demonstrated that 1) the stream depletion rate for a radial collector well shows unsteady stream depletion and is affected by streambed conductance, aquifer properties and well location; 2) the fully 3-D analytical model for groundwater flow to a well that partially penetrates the aquifer can be used to evaluate hydraulic gradients in the aquifer for well design; and 3) streamlines can be used to evaluate contaminant transport from a stream to a well and used to estimate steady state concentration at the well and the time to reach steady state.

REQUIRED FORMS

1. Public Works Contractor Registration Certification
2. Conflict of Interest Disclaimer
3. Acknowledgement of Insurance Requirements

PUBLIC WORKS CONTRACTOR REGISTRATION CERTIFICATION

Pursuant to Labor Code sections 1725.5 and 1771.1, all contractors and subcontractors that wish to bid on, be listed in a bid proposal, or enter into a contract to perform public work must be registered with the Department of Industrial Relations. See http://www.dir.ca.gov/Public-Works/PublicWorks.html for additional information. No bid or proposal will be accepted nor any contract entered into without proof of the contractor's and subcontractors' current registration with the Department of Industrial Relations to perform public work.

Respondent hereby certifies that it is aware of the registration requirements set forth in Labor Code sections 1725.5 and 1771.1 and is currently registered as a contractor with the Department of Industrial Relations.

Name of Bidder: David Keith Todd Consulting Engineers, dba Todd Groundwater

DIR Registration Number: 1000022693

Bidder further acknowledges:

1. Bidder shall maintain a current DIR registration for the duration of the project or contract.

2. Bidder shall include the requirements of Labor Code sections 1725.5 and 1771.1 in any contract with subcontractors and ensure that all subcontractors are registered at the time of the proposal submittal and maintain registration status for the duration of the project.

3. Failure to submit this form or comply with any of the above requirements may result in a finding that the bid is non-responsive.

Signature: _____

Name and Title: Iris Priestaf, President

Dated: April 16, 2019

CONFLICT OF INTEREST DISCLAIMER

The undersigned, Iris Priestaf *(Print or Type Name)*, declares that Todd Groundwater *(Name of Firm)* [has/ does not have] interest, ownership, or receives/ anticipates receiving remuneration of any type from the manufacturer(s), supplier(s) or distributor(s) which may be recommended on the project, as listed below.

Firm	Product	Remuneration

No interest, ownership or remuneration from any manufacturer, supplier, or distributor

Signature of Representative

President

Title

April 16, 2019

Date

ACKNOWLEDGMENT OF INSURANCE REQUIREMENTS AND CERTIFICATION OF ABILITY TO PROVIDE COVERAGES SPECIFIED

I, Iris Priestaf, the President
(President, Secretary, Manager, Owner or Representative)

of Todd Groundwater, certify that I have
(Name of Company or Corporation or Owner)

read and understand the Insurance Requirements set forth in the Professional Services Agreement for the Bedford Coldwater Groundwater Sustainability Authority and that our insurance company(ies)

Travelers, Hartford, Greenwich
[fill in name(s) of insurance company(ies)]

is/are able to provide the coverages specified.

Signature of President, Secretary, Manager, Owner or Representative

April 16, 2019
Date

DBE COMPLIANCE AND FORMS

DISADVANTADGED BUSINESS ENTERPRISE GOOD FAITH EFFORTS

Todd Groundwater is a disadvantaged business enterprise (DBE). We are certified as a Small Business Enterprise (SBE, technically a micro business) and a Woman Owned Business Enterprise (WBE). Our SBE certification is with the State of California and our WBE certifications are with the City and County of Los Angeles. Copies of these certification documents are attached.

Todd Groundwater is committed to working with local disadvantaged/minority firms to identify local, proven skillsets to enhance our team's abilities and we completed the good faith efforts (GFEs) identified by the State Water Resources Control Board (SWRCB) for California State Revolving Fund (CASRF) programs. This included posting a solicitation for bids in a local newspaper (the Riverside County Press-Enterprise), consideration of subcontracting with DBEs, and used the services of the SBA. However, these GFEs did not identify any DBEs to team with us on this project.

★

Todd Groundwater is seeking qualified disadvantaged business enterprise firms (MBE, WBE, SBE, SBRA, LSAF, or HUB certified firms) to join our team for the Bedford Coldwater Subbasin Groundwater Sustainability Plan Development project. We are looking for firms that specialize in: Development of Groundwater Sustainability Plans, Groundwater Stakeholder Outreach, Planning and Design of Monitoring Wells, and/or Development of Groundwater Monitoring Programs. Interested firms must hold a DBE certification from a recognized local, California, or Federal certifying agency. Certifications will be accepted from the following: The U.S. Environmental Protection Agency (USEPA); the Small Business Administration (SBA); the Department of Transportation's State implemented DBE Certification Program (with U.S. citizenship); Tribal, State and Local governments; or independent private certifying organizations. The deadline for submissions is April 26, 2019. If interested, please email Chad Taylor at ctaylor@toddgroundwater.com. 3/28 - 4/30

Post Date: 03/28 12:00 AM

Refcode: #0011251397-01 iPrint

We solicited DBE firms via a 30-day advertisement to uncover additional talent to augment our team.

Supplier Profile

State of California Certification

Certification ID : 21517

Legal Business Name
DAVID KEITH TODD CONSULTING ENGINEERS, INC

Doing Business As (DBA) Name1:
TODD GROUNDWATER, INC.

Doing Business As (DBA) Name2:

Office Phone Number
510/747-6920

Business Fax Number
510/747-6921

Business Web Address
http://www.toddgroundwater.com

Address
2490 MARINER SQUARE LOOP STE 215
ALAMEDA
CA 94501-1080

Email:
sgould@toddgroundwater.com

Total No. of Employees
15

Business Types:
Service

Notification Preference
Email

Service Areas
Alameda , Alpine , Amador , Butte , Calaveras , Colusa , Contra Costa , Del Norte , El Dorado , Fresno , Glenn , Humboldt , Imperial , Inyo , Kern , Kings , Lake , Lassen , Los Angeles , Madera , Marin , Mariposa , Mendocino , Merced , Modoc , Mono , Monterey , Napa , Nevada , Orange , Placer , Plumas , Riverside , Sacramento , San Benito , San Bernardino , San Diego , San Joaquin , San Luis Obispo , San Mateo , Santa Barbara , Santa Clara , Santa Cruz , Shasta , Sierra , Siskiyou , Solano , Sonoma , Stanislaus , Sutter , Tehama , Trinity , Tulare , Tuolumne , Ventura , Yolo , Yuba

View Keywords | View Classifications

View SB | Amend SB

View Keywords | View Classifications

View SB | Amend SB

Apply for Certification

Active Certifications

Certification Type	Application Date	Status	Status Date/Time	From	To	Cancel
SB(Micro)	02/27/2018	Approved	02/28/18 9:50AM	02/28/2018	02/29/2020	

Certification History

Certification Type	Application Date	Status	Status Date/Time	From	To
SB(Micro)	11/20/2013	Expired	04/05/16 12:29PM	01/21/2014	02/28/2018

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CITY OF LOS ANGELES
CALIFORNIA

ERIC GARCETTI
MAYOR

JOHN L. REAMER, JR.
Inspector of Public Works
and
Director
BUREAU OF
CONTRACT ADMINISTRATION
1149 S. BROADWAY, SUITE 300
LOS ANGELES, CA 90015
(213) 847-1922

http://bca.lacity.org

October 3, 2016

Ms. Iris Priestaf
David Keith Todd Consulting Engineers, Inc.
DBA Todd Groundwater
2490 Mariner Square Loop, Suite 215
Alameda, CA 94501

RE: STATUS OF WOMEN BUSINESS ENTERPRISE (WBE) CERTIFICATION
CCA No. 11707

Dear Ms. Priestaf:

The Bureau of Contract Administration, Office of Contract Compliance has implemented a change to the City of Los Angeles MBE/WBE Certification Rules and Regulations; certifications will remain valid beyond the period indicated in the issued certification approval letters. A firm shall remain certified unless and until its certification is removed for cause.

The City reserves the right to request additional information and/or conduct on-site visits at any time during the certification period to verify any documentation submitted with your application. If there are any changes in your firm's name, address, ownership, control, or work category, you are still required to notify this office of those changes in writing. Please include your file number on each page of correspondence relating to these matters.

Your certification status can be verified in the City of Los Angeles DBE/MBE/WBE database at http://bca.lacity.org or by calling our office at (213) 847-2684.

If you have any questions regarding this matter, please contact the Centralized Certification Administration at (213) 847-2684.

Sincerely,

LYNDA McGLINCHEY, Certification Manager
Office of Contract Compliance
Bureau of Contract Administration

COUNTY OF LOS ANGELES
DEPARTMENT OF CONSUMER AND BUSINESS AFFAIRS

"To Enrich Lives Through Effective and Caring Service"

March 15, 2019

Iris Priestaf, President
DAVID KEITH TODD CONSULTING ENDBA: TODD ENGINEERS
2490 MARINER SQUARE LOOP
ALAMEDA, CA 94501-1080

CBE I.D. #
086639
Status: WBE

Dear Iris Priestaf,

Congratulations! Your firm has been recertified as an eligible participant in the County of Los Angeles Community Business Enterprise (CBE) Program. This recertification is valid until March 15, 2021.

The County of Los Angeles Department of Consumer and Business Affairs (DCBA) reserves the right to request additional information and/or conduct an on-site visit at any time to verify any documentation submitted by the applicant. If there are any changes during this certification period, you are required to notify DCBA immediately.

We would also like to thank you for registering your business with the County's Vendor Registration website (WebVen) at http://camisvr.co.la.ca.us/webven. You are now eligible to participate in the County's on-line access to open bids, be placed on bid lists generated by County departments looking for prospective vendors and periodically be notified automatically via email of County bids by specific commodities/services.

Again, congratulations on your recertification. If you have any questions, please call (855) 230-6430 or email us at cbesbe@dcba.lacounty.gov and refer to the identification number above.

Sincerely,

Joseph M. Nicchitta
Director

CHRISTIAN OLMOS
Program Chief, Office of Small Business
JMN: CO

PROPOSAL FOR BEDFORD COLDWATER SUBBASIN GROUNDWATER SUSTAINABILITY PLAN DEVELOPMENT

APRIL 30, 2019

Prepared for:

BEDFORD COLDWATER
Groundwater Sustainability Authority

CORONA

TEMESCAL VALLEY WATER DISTRICT

EVMWD

Prepared by:

WEI
WILDERMUTH ENVIRONMENTAL, INC.

WEST YOST ASSOCIATES

WILDERMUTH ENVIRONMENTAL, INC.

April 30, 2019

Elsinore Valley Municipal Water District

Subject: ***Proposal for Bedford Coldwater Subbasin Groundwater Sustainability Plan Development***

To Whom It May Concern,

Thank you for the opportunity to submit this proposal to the Elsinore Valley Municipal Water District representing the Bedford Coldwater Groundwater Sustainability Agency (BCGSA) to provide professional services for the development of a Groundwater Sustainability Plan (GSP) for the Bedford Coldwater Subbasin (BCS). Wildermuth Environmental, Inc. (WEI) and our teaming partner West Yost Associates (WY) are excited to work collaboratively with the BCGSA, Stantec, and other interested stakeholders. We understand your objectives are to develop a GSP that is fully compliant with the requirements of the Sustainable Groundwater Management Act of 2014 (SGMA) and serves as a new groundwater management plan that maximizes the beneficial use of the BCS.

The WEI/WY team of scientists and engineers is uniquely qualified and able to serve the GSA based on our combined experience and successes over the last 25 years in providing hydrogeological, engineering, Watermaster, modeling, water management planning, water-rights, regulatory compliance, and other similar services to multiple clients throughout California. The WEI/WY team has been successfully providing these services for decades with its clients in adjudicated groundwater basins and in other basins with sustainability goals.

Our approach to this project will leverage our past and current work efforts in the region for groundwater management and regulatory compliance purposes. For example, we have prepared and continue to maintain a comprehensive environmental database of the region; we have prepared hydrogeologic conceptual models of the Bedford and Coldwater basins; and we have prepared and used surface-water models of the watershed. These past and current efforts will enable efficiencies in performing the work; will lead to high-quality work products; and will produce a final GSP that maximizes the beneficial use of the BCS, ensures long-term sustainability, and proposes a long-term monitoring program that does not duplicate monitoring efforts associated with other management plans and programs in the region.

In this proposal we describe a logical step-wise approach to preparing the GSP in close coordination with Stantec, the project administrator, and GSA staff. The approach will produce information and work products that will form the chapters of the GSP. Our approach to partnering with GSA staff and Stantec, coupled with extensive knowledge of the hydrogeology and groundwater conditions of the BCS, puts the WEI/WY team in an excellent position to develop a complete GSP in a timely and cost-effective manner.

23692 Birtcher Drive, Lake Forest, CA 92630 Tel: 949.420.3030 Fax: 949.420.4040 www.weiwater.com

This proposal is organized in the following manner:

Cover Letter
Section 1 – Project Understanding and Approach (including the scope of work)
Section 2 – Qualifications
Section 3 – Key Project Personnel
Section 4 – Project Schedule
Section 5 – Fee Estimate
Appendix – Resumes and Required Forms

The contact person for this proposal is our proposed project manager:

Samantha Adams
Vice President
23692 Birtcher Drive
Lake Forest, CA 92630
(949) 420-3030; (949) 600-7503
sadams@weiwater.com

The cost proposal contained within this proposal will remain valid for a period of 180 days.

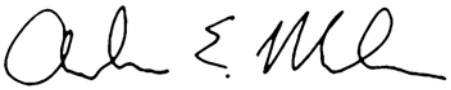
WEI/WY acknowledges that there were no Addenda issued to the RFP.

We thank you for the opportunity to serve.

Very truly yours,

Wildermuth Environmental, Inc.

Samantha Adams, MESM
Vice President, Principal Scientist
Project Manager



Andy Malone, PG
Vice President, Principal Geologist
Principal-in-Charge

1.1 Project Understanding and Approach

The Bedford Coldwater Subbasin (BCS) is a relatively small, non-adjudicated subbasin of the Elsinore Basin (DWR Basin 8-004). The DWR has re-designated the BCS as a "low-priority" basin because groundwater use within it is generally less than 2,000 acre-feet per year (Sub-component 8.c.1 of the *Sustainable Groundwater Management Act 2018 Basin Reprioritization*[1]). As such, the BCS is not required by the SGMA to develop and implement a GSP. The WEI/WY team understands that even though it is not a requirement of the SGMA, the BCGSA has elected to prepare and adopt a GSP with the objectives of maximizing the beneficial use of the BCS and ensuring long-term sustainability.

The WEI/WY team's understanding of the Project is derived from a thorough review and understanding of: the Request for Proposal (RFP); the Sustainable Groundwater Planning (SGWP) grant application that was awarded to the BCGSA; the SGMA GSP Emergency Regulations, the DWR's GSP annotated outline guidance document, and the DWR's best management practice (BMP) documents for sustainable groundwater management. Furthermore, our project understanding is based on our long history of performing technical and regulatory-compliance work in the Elsinore Basin and the Temescal Valley. Examples include:

- Establishing the initial Native Safe Yield for the Coldwater Basin to support the development of the 2009 *Agreement Concerning Water Production from the Coldwater Basin* between the City of Corona (Corona) and the Elsinore Valley Municipal Water District (EVMWD). Since 2009, WEI has been preparing annual reports for the Coldwater Basin Operating Committee pursuant to the Agreement, which includes periodic re-determination of the Native Safe Yield computed from groundwater pumping data and estimated changes in groundwater storage.
- Evaluating the feasibility of developing a potable water-supply from the Bedford Basin for Corona and EVMWD. This work included a detailed characterization of the storage, yield, and water quality of the Bedford Basin.
- Assisting the EVMWD in permitting its Flagler 3A well in the Bedford Basin from non-potable to potable use. WEI prepared a comprehensive technical report on the hydrology, hydrogeology, and water quality of the Bedford Basin tributary to the Flagler 3A well, which was of great use to EVMWD in the permitting process with the California Division of Drinking Water. This work included surface-water modeling to estimate the origin of groundwater pumped by the well—particularly the groundwater that originates as treated wastewater discharged upstream of the well.
- Developing and implementing the Upper Temescal Valley Salt and Nutrient Management Plan for EVMWD and Eastern Municipal Water District. This work included an extensive data collection effort in the Bedford Basin (and in the upstream Lee Lake and Warm Springs subbasins), a comprehensive analysis of historical and current water quality conditions in the Upper Temescal Valley, and design and implementation of a surface and groundwater monitoring program. WEI is now in the second year of implementing the surface and groundwater monitoring program that supports the SNMP.

Through the work above, WEI has prepared and maintains a comprehensive environmental database of the BCS and has developed a firm understanding of the hydrogeology of the BCS. This places the WEI/WY

[1] DWR, 2018. *Sustainable Groundwater Management Act 2018 Basin Reprioritization, Process and Results*, January 2019.

team in a unique position to develop the GSP for the BCS with efficiency and high-quality with assurance of no duplication of monitoring efforts between the implementation of the GSP and the SNMP for the Upper Temescal Valley. In this proposal we describe a logical step-wise approach to preparing the GSP in close coordination with Stantec and the BCGSA. Some of the key aspects of our approach include:

- A hydrogeologic conceptual model (HCM) will be prepared as a key subtask of Task 1. By preparing the HCM first, WEI/WY will have the requisite information to: (i) evaluate the Todd Groundwater data-gap analysis and recommendations for future field work (ii) construct and calibrate the computer-simulation models of the surface-water and groundwater systems of the BCS, and (iii) prepare the Plan Area and Basin Setting sections of the GSP.
- Task 2 is broken down into several subtasks:
    - The construction and calibration of the models (along with the HCM from Task 1) will provide information to develop Sustainable Management Criteria for the GSP, such as defining the Sustainability Indicators, Undesirable Results, Minimum Thresholds, and Measurable Objectives.
    - The models will be used to evaluate future groundwater management plans and projects to achieve long-term sustainability and maximize the beneficial use of the BCS.
- The information developed in Tasks 1 and 2 will be used in the subsequent tasks to define the Sustainability Goal for the BCS, describe the monitoring network and long-term monitoring program, and prepare the draft and final GSPs through a public process.

Our approach to partnering with GSA staff and Stantec coupled with extensive knowledge of the hydrogeology and groundwater conditions of the BCS, puts the WEI/WY team in an excellent position to develop a complete GSP in a timely and cost-effective manner.

1.2 Scope of Work

The scope of work provided below describes the steps to implement our approach to completing the BCS GSP. The tasks to complete the GSP include all tasks described in the scope of work of the RFP. Table 5-3 (see Section 5 – *Fee Proposal*) is a detailed work breakdown structure and line-item cost estimate that shows the process and steps for each Task and subtask of the work.

Task 1. Resolution of Recommended Field Work

The objective of this task is to develop recommendations and cost estimates for performing field work that is necessary to fill current gaps in the understand of the hydrogeology and/or current conditions in the BCS. The field work will likely be performed during GSP implementation and is not included as a task in this proposal.

The recommendations for field work will be based on the currently available data and the current understanding of the hydrology and hydrogeology of the BCS. WEI/WY will review the data gap analysis performed by Todd Groundwater, and perform the following three subtasks:

Task 1a. Update hydrogeologic databases and library of reports
Task 1b. Prepare the hydrogeologic conceptual model of the BCS
Task 1c. Resolution of recommended field work

The HCM in Task 1b will provide the requisite information to describe the Plan Area and Basin Setting in Chapter 2 of the GSP (Task 3) and construct and calibrate the numerical groundwater-flow model (Task 2b).

Task 1a – Update hydrogeologic databases and library of reports

The objective of this tasks is to collect and compile all data, reports, and information necessary to prepare the GSP. We recognize that the BCGSA maintains an existing data management system (DMS) of reports and data on a SharePoint site. However, through past work in the area, WEI has developed an extensive relational database of hydrologic and hydrogeologic data on the BCS and surrounding subbasins, and maintains these data in a robust DMS called Hydrologic Database and Visual Explanations (HydroDaVE^{SM}). HydroDaVE is an online, password-protected, relational environmental database with a user-friendly, map-based interface which allows end-users to view, analyze, and export environmental data in various formats.

We will utilize HydroDaVE internally to house all pertinent data for development of the GSP including: the SharePoint databased; GIS layers; well and borehole information; groundwater elevations; groundwater quality; surface-water discharge and quality; and precipitation, among others. All relevant scientific reports that have been published on the BCS will be collected, reviewed, digitized as PDF files if necessary, and uploaded to HydroDaVE in a project library. The database tables in HydroDaVE will be exported and uploaded to the BCGSA SharePoint site at the end of this task. Note that the majority of the existing data is already housed in HydroDaVE through past and ongoing work performed by WEI for the Coldwater Basin Operating Committee and the Elsinore Valley Municipal Water District.

At the BCGSA's request, and at no cost, a database expert from WEI will meet with GSA staff to train them on the use of HydroDaVE and will provide full access to HydroDaVE during the project.

Task 1b – Prepare the hydrogeologic conceptual model

Task 1b will include review of the data and information complied by Todd Groundwater for the BCGSA and reviewing additional available data, as needed, to develop the HCM. WEI/WY will prepare maps, tables, and charts to describe the Plan Area and Basin Setting of the BCS. The materials prepared to describe the Plan Area will address the requirements of Article 5, Subarticle 1, Section 354.8 of the GSP Emergency Regulations and will include:

- Jurisdictional areas and other features. A map will be prepared to display the GSP area, adjudications, the water supply agencies within basin, and Federal and State land use boundaries.
- Existing monitoring and groundwater management programs. A map will be prepared to display all current well locations and the current groundwater/surface-water monitoring network.
- Historical and current land use, water use, and disposal. Maps will be prepared to display the current and ultimate land use plans across the BCS and their associated water use and disposal plans.

The Basin Setting is a detailed description of the surface-water and groundwater hydrology of the BCS over a long-term historical period to current conditions, including the identification of data gaps and levels of uncertainty of the description. The materials prepared to describe the Basin Setting will address the requirements of Article 5, Subarticle 2 of the GSP Regulations and become the basis for: the resolution of the recommended field work in Task 1c; the construction and calibration of the numerical groundwater-flow model in Task 2b, and the development of the Sustainable Management Criteria in Task 2c. Key work efforts of this task include:

- HCM. Maps will be prepared to display: the surface water system and source/point of imported water supplies; topography and surficial geology; the bottom of the aquifer; soil types and characteristics; areas of recharge and discharge; and aquifer geometry and initial aquifer properties, among others. Up to six profile-view hydrogeologic cross sections will be prepared to illustrate the aquifer geometry, composition, and hydrostratigraphic layering.
- Current and historical groundwater conditions. Maps, tables, and charts will be prepared to display: groundwater production; groundwater elevations and groundwater flow directions and how they have changed over time; groundwater quality (TDS, nitrate, other constituents of concern); historical land subsidence; and the location of interconnected groundwater/surface water systems and groundwater dependent ecosystems. A time-series chart will be prepared to reveal the relationships between climate, groundwater production, and groundwater levels.
- Current and historical water budget. Initial estimates of the basin's water budget will be made based on the conceptual model and will be updated based on the model calibration results over the historical calibration period (Task 2b). The final water budget will be a table that will list, on an annual time-step, the individual recharge and discharge terms for the BCS, the change in storage, and the resultant basin yield.

The work performed in this subtask will be utilized to develop recommendations for field work in Task 1c, to prepare the modeling strategy in Task 2a, and to prepare the Plan Area and Basin Setting (Chapter 2) of the GSP in Task 3.

Task 1c – Recommend field work

The objective of Task 1c is to refine the field work recommendations prepared by Todd Groundwater to address the data gaps in the HCM identified under Task 1b. WEI/WY will also review and consider:

- The results of the well canvas completed by Stantec, which will identify the existing wells that are accessible and able to be instrumented with monitoring equipment.
- The field work (surface water and groundwater monitoring) being performed by WEI on behalf of the Elsinore Valley Municipal Water District for the Upper Temescal Valley Salt and Nutrient Management Plan. This work is being performed within the Bedford Basin and the upgradient Lee Lake and Warm Springs Basins.

A technical memorandum (TM) will be prepared to summarize any additional data gaps identified during Task 1b, the refined recommendations for field activities, budgetary cost estimates for performing the field activities, and recommendations satisfying the requirements of the SGWP Grant Work Plan tasks 2, 6, 7, 8 as detailed in the following bullets.

- Task 2: Baseline Sampling and Analysis to Support Groundwater Monitoring Program – The TM will identify the wells to include and constituents to analyze during baseline monitoring.
- Task 6: Monitoring Well Equipment Installation – The TM will identify the wells to equip and recommended equipment for installation.
- Task 7: New Monitoring Wells – The TM will identify the general areas for well installation and preliminary construction details such as depth and screen interval(s).
- Task 8: Project Monitoring Plan – The TM will outline the recommended monitoring plan, including required monitoring and frequency of monitoring, reporting, and maintenance.

The draft TM will be provided to the BCGSA for review and comment. Two weeks following submittal of the draft, WEI/WY will present and discuss the recommended field activities with BCGSA staff to arrive at the final determination of field activities. It is anticipated that this discussion will take place during a monthly teleconference meeting under Task 7. Based on this discussion, and subsequent comments from

BCGSA staff, the WEI/WY team will update the draft TM with the refined scope and cost estimates for field activities. The final TM will be distributed to BCGSA staff as an electronic document.

Deliverables: Draft TM on Recommended Field Work, Final TM on Recommended Field Work

Task 2. Groundwater Model

The objective of this task is to develop surface-water and groundwater models of the BCS and its tributary watershed, and use the models to estimate water budgets, develop sustainable management criteria, and evaluate the future sustainability of the GSP.

The subtasks for developing and using the models are:

Task 2a. Modeling strategy technical memorandum
Task 2b. Construct and calibrate a numerical groundwater flow model
Task 2c. Define sustainable management criteria
Task 2d. Develop and document the Baseline Scenario
Task 2e. Conduct modeling evaluation of the Baseline Scenario
Task 2f. Conduct modeling evaluation of the basin optimization scenarios
Task 2g. Prepare model documentation technical memorandum

Task 2a – Modeling strategy technical memorandum

In this task, WEI/WY will prepare a TM detailing the proposed modeling strategy for the BCS. The draft TM will describe proposed model attributes, including the number and extent of model layers, grid spacing and alignment, model domain, calibration period, water budget, calibration targets, and boundary conditions. The draft TM will be provided to the BCGSA in electronic format for review and comment. Comments received from the BCGSA will be addressed in a tabular response to comment (RTC) format. Upon resolution of the comments, the TM will be finalized, and the surface and groundwater models will be developed in accordance with the approved strategy. It is assumed that one complete round of comments and RTC's will be required to achieve consensus.

Deliverables: Draft Modeling Strategy TM, Final Modeling Strategy TM with RTC documentation

Task 2b – Construct and calibrate a numerical groundwater flow model

WEI/WY will develop a surface water model using Hydrological Simulation Package – Fortran (HSPF) in combination with a MODFLOW-NWT numerical groundwater model for the BCS. The models will be developed and calibrated in a manner that is consistent with the BMPs developed and published by DWR in the *Modeling BMP*[2]. The HSPF model is necessary to develop estimates surface water recharge (i.e. streambed recharge, deep infiltration of precipitation and applied water), subsurface boundary inflows, riparian evapotranspiration (ET) and surface water outflow for the BCS. The domain of this model will include the watershed area tributary to the BCS (i.e. the Temescal Wash and Bedford Wash Watersheds). To the extent possible, the BCS HSPF will rely on the existing HSPF model developed by the Basin Monitoring Program Task Force. The numerical groundwater model will be constructed using MODFLOW – NWT. The model will include the stream routing package SRF2 for MODFLOW to simulate surface water and groundwater interaction and the ET packages to simulate ET outflow due to riparian vegetation.

[2] Best Practices, Sustainable Groundwater Management Act, Modeling BMP located here: https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Sustainable-Groundwater-Management/Best-Management-Practices-and-Guidance-Documents/Files/BMP-5-Modeling.pdf

The models will be calibrated together using PEST, an industry-standard code to explore model parameter sensitivity, optimize model parameter values and estimate calibration performance. This approach involves conducting an iterative process that includes sensitivity analysis, parameter optimization and residual analysis. The groundwater model parameters will be optimally estimated and constrained to a range of plausible values based on rock type and geologic setting. The results of the calibration process will be presented in a table of final model parameter values, scatter plots with statistics to characterize fit, residual plots, residual maps, groundwater elevation hydrographs that show observed and model-computed values and a water budget table.

Task 2c – Define sustainable management criteria

The objective of Task 2c is to achieve consensus with the BCGSA on quantitative Sustainable Management Criteria that define conditions of sustainable groundwater management. These criteria are essential to the success of a GSP as they provide quantitative and measurable goals for the avoidance of undesirable results. Defining the Sustainable Management Criteria following construction and calibration of the groundwater model, but prior to evaluating Basin optimization scenarios and developing new projects or management actions, is critical as they provide the benchmarks for ultimately determining the future sustainability of the BCS. Task 2c addresses the requirements of Article 5, Subarticle 3 of the GSP Emergency Regulations.

The following questions will be answered during the development of the Sustainable Management Criteria:

- What are the relevant Sustainability Indicators for the BCS?
- What causes Undesirable Results to occur for the relevant Sustainability Indicators?
- What is the Minimum Threshold for each Sustainability Indicator? In other words, at what measurable point do groundwater conditions trigger an Undesirable Result for each Sustainability Indicator?
- What should be the Measurable Objectives for groundwater conditions for each Sustainability Indicator?
- Are Management Areas appropriate in the BCS. If so, how should they be delineated?
- What is the appropriate monitoring program to evaluate sustainability and support GSP implementation?

WEI/WY will utilize information generated from groundwater model calibration, empirical analyses of data in the HCM, and other hydrogeologic tools to support the development of draft Sustainable Management Criteria for consideration by the BCGSA. One or more measurable objectives will be developed for each sustainability indicator and associated interim milestones for every 5-year interval will be established to achieve sustainability. The measurable objectives will be designed to allow for operational flexibility while accounting for climate variations and uncertainty.

For the BCS, it is anticipated that up to two management areas will be defined and five of the undesirable results identified in SGMA (chronic lowering of groundwater levels, reduction in groundwater storage, degraded water quality, land subsidence, and depletions of interconnected surface water) will be evaluated for establishment of minimum thresholds and management objectives. Seawater intrusion will not be evaluated. It is anticipated that groundwater elevation will be used as a proxy for multiple sustainability indicators where a relationship can be shown, as provided for in the GSP Regulations. This task will include evaluating the Sustainable Management Criteria against the monitoring and reporting recommendations from Task 1b and updating the long-term monitoring and reporting program, as necessary.

In addition, SGMA requires GSA's to consider the beneficial uses and users of groundwater in their basin when setting sustainable management criteria. Once draft Sustainable Management Criteria are developed, WEI/WY recommends conducting a meeting/workshop with the BCGSA, Stantec, and interested Stakeholders/beneficial users of groundwater to discuss and finalize the Sustainable Management Criteria. Meeting minutes will be used to document the BCGSA's decisions. This meeting is covered under Task 7.

Deliverables: *Meeting agenda (covered under Task 7); Meeting summary documenting Draft Sustainable Management Criteria to be included in Section 3 of the GSP (Covered under Task 7)*

Task 2d – Develop and document the Baseline Scenario

In this task, the future water demands and water-supply plans of the water-supply agencies overlying the BCS will be collected and summarized in tables and figures. Assumptions will be made for the operations of private pumpers in the basin based on past and potential future production. The tables and figures will describe the Baseline Scenario which will be a 60-year planning projection of: the future water demands and water supply plans, land use changes, and pumping and managed aquifer recharge in the basin. It is assumed that the Baseline Scenario will be reviewed, discussed, and agreed upon during the monthly GSP progress calls.

Task 2e – Conduct modeling evaluation of the Baseline Scenario

In this task, the surface-water and groundwater models will be updated to reflect baseline future project conditions and plans, model input files will be prepared, and the Baseline Scenario will be simulated to predict the response of the BCS to the Baseline Scenario. The surface-water model will be updated first to account for future land-use and other changes that will impact surface-water flows. For the planning period, a daily projection of precipitation, applied water and ET will be prepared for each surface-water model sub-area incorporating DWR guidance for representing climate change. The surface-water model will estimate the future deep infiltration of precipitation and applied water, sub-surface boundary inflows, streambed infiltration, and surface-water inflows/outflows. The output from the surface-water model will provide input data for the groundwater model. Other input files for the groundwater model will be prepared, including estimated future groundwater pumping and managed recharge of storm, imported, and recycled water.

The results of the groundwater modeling will represent the groundwater basin response to the Baseline Scenario. The model results will be displayed as tables, charts, and maps and will be compared to the Sustainability Criteria developed in Task 2c to evaluate sustainability under the Baseline Scenario. Impediments to achieving sustainability will be identified, including: the specific Sustainable Management Criteria that are challenged, the specific areas where the impediments occur, and the timing and magnitude of the impediments. This task includes an analysis of impacts to neighboring groundwater basins. The results of this work will be used by Stantec to define Projects and Management Actions to achieve sustainability.

Task 2f – Conduct modeling evaluation of the basin optimization scenarios

In this task, the surface-water and groundwater models will be used to simulate up to nine Basin Optimization Scenarios to predict the response of the BCS to the proposed Projects and Management Actions to achieve sustainability. The surface-water model from the Baseline Scenario will be refined based on Basin Optimization Scenarios that would affect surface water processes and then run for each Scenario to estimate: future deep infiltration of precipitation and applied water, sub-surface boundary

inflows, streambed infiltration, and surface-water inflows/outflows. The output from the surface-water modeling will provide input data for the groundwater model. Other input files for the groundwater model will be prepared for each Basin Optimization Scenario, including estimated future groundwater pumping and managed artificial recharge of storm, imported, and recycled water.

The results of the groundwater modeling will represent the groundwater basin response to the Basin Optimization Scenarios. The model results will be displayed as tables, charts, and maps and will be compared to: (i) the Sustainable Management Criteria developed in Task 2c to evaluate sustainability and (ii) the results of the Baseline Scenario to describe any projected improvements in basin conditions (e.g., enhanced basin yield). This task includes an analysis of impacts to neighboring groundwater basins.

Task 2g – Prepare model documentation technical memorandum

In this Task, WEI/WY will prepare a TM documenting the development and results of the numerical model. The TM will include: a summary of the HCM; details of the water budget, computer codes used, model construction and calibration; evaluations of the Baseline and Optimization Scenarios modeled, and; recommendations on the preferred Scenario. A draft of the TM will be provided to the BCGSA in electronic format for review and comment. Comments received from the BCGSA will be addressed in a tabular response to comment (RTC) format. Upon resolution of the comments, the TM will be finalized. It is assumed that one complete round of comments and RTC's will be required to achieve consensus.

Task 3. Develop a Preliminary Draft GSP

The objective of this task is to work collaboratively with Stantec and the BCGSA to prepare the Preliminary Draft GSP, which will generally follow DWR's GSP annotated outline. Preliminary Draft GSP sections will be prepared by WEI/WY, as indicated in Attachment B of the RFP, for review and comment by Stantec and the BCGSA.

These sections include:

- Section 2: Plan Area and Basin Setting (except portions of Sections 2.1.4 and 2.1.5)
- Section 3: Sustainable Management Criteria
- Section 6: References and Technical Studies (including Groundwater Model Documentation)

The supporting documentation prepared to develop the HCM in Task 1b will be used to complete Section 2 of the GSP. The Task 2g Model Documentation TM will be included in Section 6.

WEI/WY will work collaboratively with Stantec and the BCGSA to prepare the following portions of the GSP but will not have primary responsibility for:

- Executive Summary
- Section 1: Introduction
- Portions of Sections 2.1.4 and 2.1.5 within Section 2: Plan Area and Basin Setting
- Section 4: Projects and Management Actions to Achieve Sustainability Goal
- Section 5: Plan Implementation
- Section 6: References and Technical Studies Appendices including

WEI/WY will prepare the Preliminary Draft GSP sections that satisfy DWR's GSP and the BCGSA Grant Agreement requirements for internal technical review by Stantec and the BCGSA. It is assumed that Stantec will compile the Sections provided by WEI/WY into the completed document.

Deliverable: *Draft GSP Sections*

Task 4. Comments on the Draft GSP

Following submission of the Preliminary Draft GSP sections, WEI/WY will meet with Stantec and the BCGSA to discuss review comments on the GSP sections and any unresolved issues/data gaps related to the GSP. It is anticipated that Stantec will consolidate comments from the BCGSA members into a single set of comments on the Preliminary Draft GSP.

Deliverable: *Meeting summary documenting potential data gaps and unresolved issues identified through review of comments on the draft GSP.*

Task 5. Revised Draft GSP

Revised Draft GSP sections will be developed based on the consolidated comments received from Stantec on the Preliminary Draft GSP sections. In addition, WEI/WY will prepare a RTC document that lists each comment and how it is addressed in the sections of the Revised Draft GSP. It is assumed that Stantec will provide explanation of how comments were resolved for sections of the GSP that were not prepared by WEI/WY for inclusion in the Comment/Response Summary.

Stantec will compile the Revised Draft GSP sections prepared by WEI/WY with other sections of the GSP, after which the Revised Draft GSP will be posted for public comment. Stantec will then consolidate and provide suggestions to resolve comments received from the public on the Revised Draft GSP.

Deliverables: *Revised Draft GSP; Comment/Response Summary for Comments on sections of the Preliminary Draft GSP prepared by the WEI/WY team.*

Task 6. Final Draft GSP Based on Public Comments

Final Draft GSP sections will be prepared based on Stantec's consolidated public comments and recommendations for resolving comments on the Revised Draft GSP sections prepared by the WEI/WY team. The WEI/WY team will prepare a RTC document that lists each public comment and how it is addressed in the Final Draft GSP. It is assumed that Stantec will provide explanation of how comments were resolved for sections of the GSP that were not prepared by the WEI/WY team for inclusion in the Comment/Response Summary. Stantec will compile the Final Draft GSP and provide to the JPA Board Members to be considered for adoption by the BCGSA and subsequent submittal to DWR.

Deliverables: *Final Draft GSP; Comment/Response Summary for Comments on sections of the Revised Draft GSP prepared by the WEI/WY team.*

Task 7. Project Management and Meetings

In this task, WEI/WY will: prepare for and attended three 4-hour coordination meetings with the BCGSA and Stantec (assumed to be done as part of Tasks 1, 3, and 6); prepare for and participate in monthly 1-hour conference calls; coordinate project staffing and sub-contractors over the duration of the project; and provide monthly invoices and reports of project progress, schedule, and budget status to the BCGSA. These invoices and progress reports will be formatted to support progress reporting to DWR for grant administration.

As detailed in Task 2c, WEI/WY will prepare for and attend a fourth coordination meeting with the BCGSA, Stantec, and interested Stakeholders/beneficial users of groundwater to discuss and finalize draft Sustainable Management Criteria.

Deliverables: *Meeting agendas and summaries (4); 18 monthly project progress summary reports*

The table below lists five projects that were recently completed or are on-going for WEI/WY clients in California. Across the top of the table are the services that are relevant to the preparation of a GSP for the Bedford Coldwater Subbasin. The table demonstrates the nexus of the projects to the services requested by the Bedford Coldwater GSA and illustrates WEI/WY experience and technical competency to perform the services requested.

This section contains descriptions of the projects listed on the table and their relevance to the Bedford Coldwater GSA and its requested services. Note that some of the project descriptions include internet links to client websites that WEI has developed or helps maintain or to project deliverables, such as final reports. We are proud of the quality of our project deliverables, the technical work performed to prepare our project deliverables, and the associated client satisfaction with our work. We encourage you to explore and learn more about our technical competencies and our desire to perform important and useful work for our clients. The project descriptions also contain contact information for client references. Each reference will attest to our high-quality and value-added services and to our long-standing relationships as "extended staff" to our clients.

Projects Completed by WEI or West Yost	Services Necessary to Prepare the Bedford Coldwater Subbasin GSP								
	Groundwater Management Planning	Basin-Scale Groundwater Studies	Groundwater Modeling	Design and Implementation of Monitoring Networks	Groundwater Use Impact on Streamflow and Ecosystems	Stakeholder Facilitation in Groundwater Management	Monitoring and Preparing Technical Reports	Hydrogeologic Studies	Direct Experience in the Bedford/Coldwater Subbasin
Projects / Clients									
Determination of the Native Safe Yield of the Coldwater Basin Elsinore Valley Municipal Water District and City of Corona	✓	✓				✓	✓	✓	✓
Watermaster Engineer Services and Groundwater Management Planning for the Six Basins Six Basins Watermaster	✓	✓	✓	✓		✓	✓	✓	
Monitoring for Impact of Groundwater Management Plans on Critical Riparian Habitat Chino Basin Watermaster and the Inland Empire Utilities Agency	✓	✓	✓	✓	✓	✓	✓	✓	
Development and Implementation of the Upper Temescal Valley Salt and Nutrient Management Plan Elsinore Valley MWD and Eastern Municipal Water District		✓		✓		✓	✓	✓	✓
SGMA Technical Support Services and Proposition 1 Grant Project Colusa County and Glenn County		✓		✓			✓	✓	

Determination of the Native Safe Yield of the Coldwater Basin

City of Corona and Elsinore Valley Municipal Water District

Project Dates:
2006 - 2018

Reference:
John Vega
General Manager
EVMWD
(951) 674-3146
jvega@evmwd.net

Tom Moody
General Manager
Corona DWP
(951) 279-3660
Tom.Moody@ci.corona.ca.us

Relevance:
WEI has the experience and capacity to: develop conceptual hydrogeologic models and apply them to estimate basin yield; perform annual reporting of water rights accounting; and lead facilitated processes of stakeholder groups.

Participating Team Members:
Andy Malone
Mark Wildermuth
Carolina Sanchez

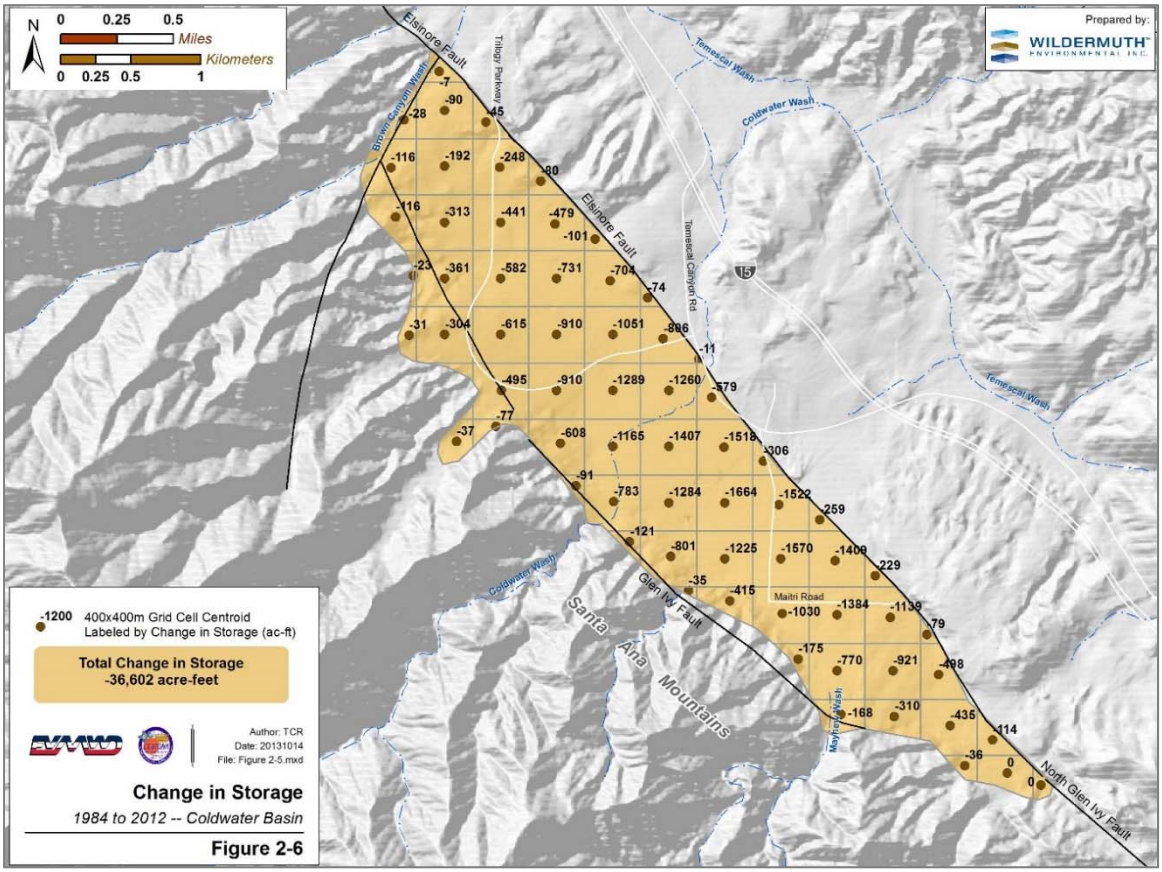
The Coldwater Basin is a fault-bounded groundwater basin located along the eastern Santa Ana Mountains in Riverside County, California. Groundwater quality is excellent, and groundwater is pumped for municipal drinking water and non-potable uses.

The City of Corona Department of Water & Power is a municipally owned utility that provides electric service, public water service, and water reclamation for the City of Corona (Corona). Elsinore Valley Municipal Water District (EVMWD) is a public non-profit agency with powers that include public water service, water supply development and planning, wastewater treatment and disposal, and recycling. As of 2016, the district had over 42,000 water, wastewater, and agricultural service connections.

In 2006, WEI performed an analysis to estimate the native safe yield of the Coldwater Basin and to establish the relative pumping rights of the two major pumpers of the basin—Corona and the EVMWD. A water-rights agreement was executed between Corona and EVMWD based on this analysis.

The method used to determine the native safe yield estimates the average annual yield of groundwater developed from the Coldwater Basin over a period of record—in this case 1984-2004. This computation of "developed yield" is intended to reflect groundwater recharge, groundwater discharge, and the change in groundwater storage that occurred over the period. The method solves a modified version of the continuity equation and uses the following information: length of the time period, change in groundwater levels over the period, storage characteristics of the Coldwater Basin aquifer system, change in groundwater storage over the period, total groundwater pumping that occurred over the period, and the total return flows from imported water that occurred over the period.

WEI performs ongoing annual reporting on the Coldwater Basin as required by the agreement for Corona and the EVMWD, which includes the accounting of pumping, storage, and water-rights. The agreement also requires the re-determination of the native safe yield once every five years, based on the monitoring data collected to date. WEI performed the work to re-determine the native safe yield in fiscal year 2013/2014, which resulted in revised pumping rights for the next five years.



WEI developed and used a hydrogeologic conceptual model and water budget of the Coldwater Basin to determine the native safe yield of the groundwater basin. The map above displays the computational results of change in groundwater storage from 1984-2014, which was a factor used to re-determine the native safe yield over that period.

Watermaster Engineer Services and Groundwater Management Planning for the Six Basins

Six Basins Watermaster

Project Dates:
2011 – Present

Reference:
Darron Poulsen
City of Pomona
President of the Six Basins Watermaster Board
909-620-2253
darron_poulsen@ci.pomona.ca.us

Relevance: Demonstrates WEI's experience, qualifications, and capacity in performing technical and administrative services for an adjudicated basin, including preparing annual engineering reports on production and assessments, leading a facilitated process for a committee of stakeholders to improve groundwater basin management, and developing and using numerical groundwater and surface-water models to evaluate proposed groundwater basin management plans.

Participating Team Members:
Andy Malone
Carolina Sanchez

The Six Basins are a group of adjacent groundwater sub-basins, located in eastern Los Angeles and western San Bernardino Counties. The pumping rights from the Six Basins were adjudicated in 1998 through a stipulated judgment, which established the Six Basins Watermaster to implement the Judgment. The Judgment prescribes a physical solution for the coordinated management of the Six Basins with the objective that the parties can reliably pump their respective rights and maximize the beneficial use of groundwater. WEI was retained in 2011 to perform technical and administrative services for the Watermaster, including conducting monthly Board meetings, implementing groundwater and surface-water monitoring programs, managing environmental data, coordinating recharge activities, calculating the annual change in storage, setting the annual operating yield and pumping rights, preparing the annual budget and assessments, performing financial management, complying with CASGEM and the SGMA, and preparing an annual report to the Court summarizing the activities of the Watermaster and compliance with the Judgment.

Field Services. A critical component of the physical solution is the monitoring of groundwater and surface-water within the Six Basins for the purposes of setting the annual operating yield of the basin, mitigating the threat of high groundwater, calculating storage, and compliance reporting. The monitoring programs include collecting and storing production, groundwater-level, water-quality, surface-water discharge, diversions for recharge, supplemental-water recharge, and precipitation data. WEI staff collects these data directly in the field or from cooperating entities, such as the Watermaster parties, the US Army Corps of Engineers, the County of Los Angeles, and groundwater remediation sites.

In 2016-17, WEI designed and implemented an expanded groundwater monitoring program, which included the installation of continuous recording transducers at 21 wells that record water-levels once every 15 minutes. In addition, WEI is coordinating with the parties to collect their SCADA information on production and water levels at wells. The intent of monitoring program is to:

- Improve the hydrogeologic conceptual understanding of the aquifer system(s) and the fault barriers, which can be used to improve basin management. For example, conditions of high and low groundwater are periodic challenges in the Six Basins. The monitoring program will provide

information to develop mitigation or management strategies to minimize or abate conditions of high and low groundwater.

- Support the location and design of capital facilities, such as new wells and treatment facilities.
- Support any monitoring and mitigation requirements associated with new wells or other facilities.

Database Management. All environmental data collected and needed to perform Watermaster functions is managed by WEI using HydroDaVE—a hosted, industry-standard, relational database that is accessed through cloud-connected Windows applications that allow for secure, remote database access. WEI uses HydroDaVE for the Watermaster to:

- aggregate and manage all data necessary to perform Watermaster functions,
- visualize and analyze the data through an online, intuitive, map-driven interface that contains several customized analytical tools,
- export the data to other software applications for data analysis and modeling,
- fulfill data requests from the Watermaster parties, consultants, and interested stakeholders,
- prepare quick, custom reports, such as water-quality MCL exceedance reports, and
- communicate and explain data to the Watermaster Board.

Compliance Reporting. The Watermaster's annual reports include the accounting for: water rights, transfers, supplemental water recharge, storage accounts, obligations to replace over-production of rights, and changes in groundwater storage. WEI has continually improved the annual report into a more efficient, accurate, and concise report. In 2015, the annual report was augmented and improved and is now submitted to the State of California to comply with the Sustainable Groundwater Management Act's reporting requirements for adjudicated basins. In addition, twice per year, WEI uses a custom report in HydroDaVE to export groundwater-level data in the exact format required by the State of California for CASGEM compliance.

Website Maintenance. WEI maintains a website at www.6bwm.com that is used extensively by the Watermaster Board and interested stakeholders. Information posted on the website includes: Watermaster's governing documents; monitoring data, charts, and maps; meeting agendas, packets, and presentations; and other Watermaster-related information and reports.

Facilitating Stakeholder Initiatives. In 2012, the Watermaster parties expressed concerns to WEI about the physical solution in the Judgment and their desire for a better approach to basin management. The parties collectively agreed to enhance basin management and retained WEI to develop the *Strategic Plan for the Six Basins*. The goals of the Strategic Plan are to: maintain or improve basin yield; maintain or improving groundwater quality, especially in areas where beneficial uses are constrained by poor quality; minimize losses due to rising groundwater or subsurface outflow; and optimize basin management so all Watermaster parties can reliably pump their share of the basin yield. Various projects were conceived in the Strategic Plan to achieve the stated goals. In 2015, WEI completed the planning phase of the Strategic Plan, which described a series of initiatives and projects to achieve the goals of the Strategic Plan:

- Pump a Temporary Surplus during wet years
- Enhance storm-water recharge
- Recharge and recovery of supplemental water

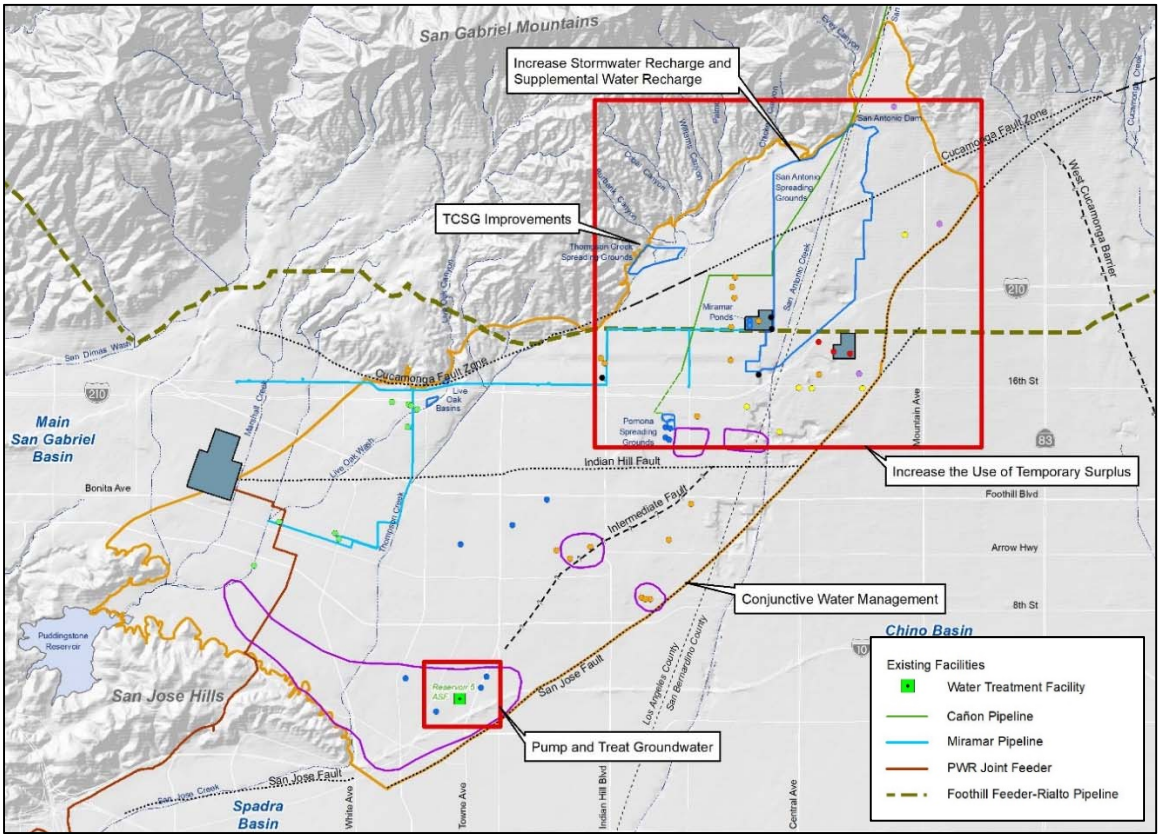
- Pump and treat groundwater in the Pomona Basin
- Conjunctive water management in the Six Basins

As part of the planning process, WEI constructed, calibrated, and used a numerical groundwater-flow model to evaluate the Strategic Plan. Each project was described and evaluated based on its nexus to the Strategic Plan goals, groundwater basin response, yield enhancement, and cost.

Strategic Plan implementation is proceeding in a phased approach. The first phase has commenced, which includes:

- Expanding the surface-water and groundwater monitoring programs
- Researching grant and low-interest loan opportunities
- Deciding on the appropriate CEQA process
- Updating the Watermaster's governing documents to support Strategic Plan implementation

A Notice of Preparation for the Strategic Plan was issued in 2018. Next phases of Strategic Plan implementation include: developing MOUs with entities to implement the projects, preparing preliminary design reports, completing CEQA, developing a financing plan and implementation agreements, obtaining permits, finalizing design of facilities, and constructing improvements.



WEI developed the operating plans and Level-5 design for a conceptual conjunctive water management program in the Six Basins. The program concept consists of recharge improvements, new wells, new groundwater treatment plants, a storage and recovery program that includes in-lieu recharge operations, and regional conveyance facilities to provide water to multiple water agencies in times of drought.

Monitoring for Impact of Groundwater Management Plans on Critical Riparian Habitat

Chino Basin Watermaster and Inland Empire Utilities Agency

Project Dates:
2014 – present

Reference:
Peter Kavounas
General Manager
Chino Basin Watermaster
909-484-3888
pkavounas@cbwm.org

Chris Berch
Assistant General Manager
IEUA
909-993-1762
cberch@ieua.org

Relevance: WEI has demonstrated experience to develop and implement multi-faceted monitoring and mitigation programs to support the implementation of groundwater management plans. This program included: the design and construction of monitoring wells, designing and conducting complex monitoring programs to answer specific regulatory questions, annual reporting of monitoring results with recommendations for program adaptation, and leading stakeholder processes.

Participating Team Members:
Veva Weamer
Andy Malone
Mark Wildermuth

The Chino Basin is a large alluvial groundwater basin in southern California with storage exceeding five million acre-feet. Groundwater in the Chino Basin generally flows from the forebay regions in the north towards the Prado Flood-Control Basin in the south (Prado Basin). Depth to groundwater is relatively shallow in the Prado Basin area, which allows for groundwater/surface-water interaction. The largest riparian forest in southern California has developed in the Prado Basin, which is critical habitat for several threatened or endangered species. Groundwater losses in the Prado Basin occur via evapotranspiration by riparian vegetation and rising-groundwater discharge to the Santa Ana River.

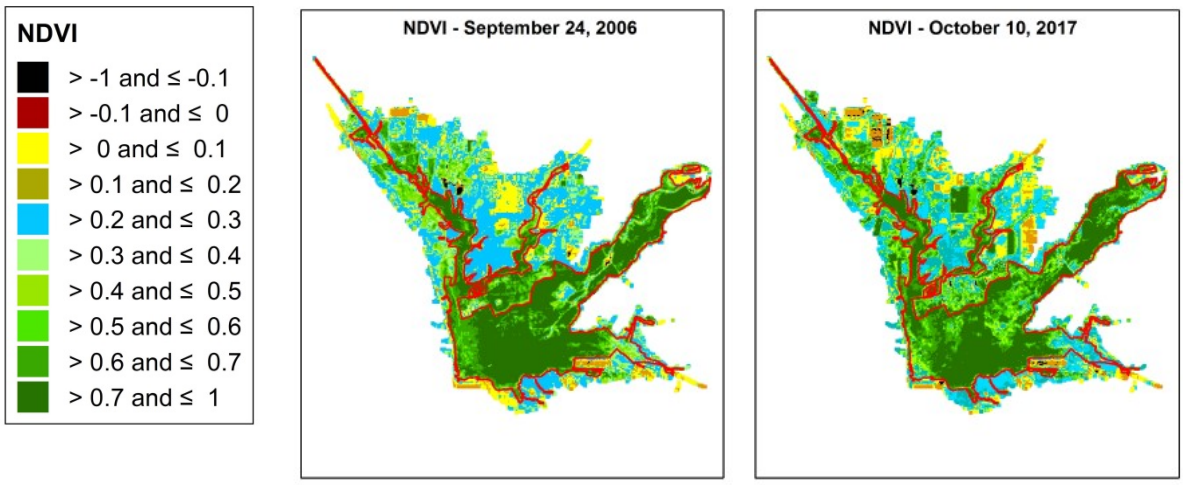
The Chino Basin Watermaster, the agency responsible for groundwater basin management, is implementing aggressive groundwater-supply programs that include controlled overdraft and the possibility of causing groundwater-level declines in the basin. The EIR for the groundwater-supply program identified the lowering of groundwater levels as a potential adverse impact to the riparian vegetation in the Prado Basin that consumptively uses shallow groundwater.

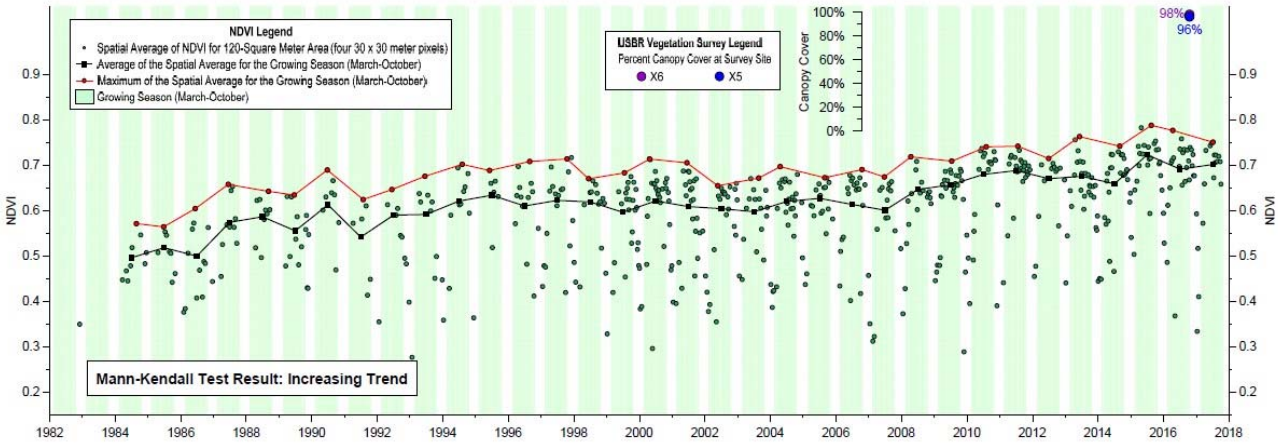
To ensure that the riparian habitat will not incur unforeseeable significant adverse effects, the EIR included a mitigation measure to develop and implement an adaptive management program (AMP) that includes: (i) convening a committee of stakeholders to supervise the AMP, (ii) conducting a comprehensive monitoring program, (iii) annual reporting on the results and conclusions of the monitoring program, and (iv) adapting the AMP and the monitoring program as appropriate to ensure habitat sustainability. WEI prepared the AMP through a stakeholder process. (Click here to view the AMP report.)

WEI developed the monitoring and reporting program and has recently begun its implementation. The first step was to design, drill, construct, and develop 16 monitoring wells located near the riparian habitat to track changes in groundwater levels within the shallow or perched aquifer systems. The monitoring program also includes characterization of the extent and quality of the riparian habitat over time, which required the acquisition and analysis of remote-sensing data from the Landsat program, high-resolution areal photography,

and field vegetation surveys. The program also involves the monitoring of all factors that could potentially impact the habitat (not only changes in groundwater levels), including surface-water discharge, precipitation, temperature, wildfire, and pests, among others. Lastly, the program includes the use of groundwater-flow model projections of future drawdown to identify areas of prospective impacts on riparian habitat.

In 2017, the Watermaster published the first annual report, which identified no current or future adverse impacts to the riparian habitat and recommended certain refinements to the monitoring program.





The Normalized Difference Vegetation Index (NDVI), derived from remote-sensing measurements from the Landsat Program, is a measure of greenness correlated with photosynthesis. WEI uses NDVI to characterize the extent and quality of riparian vegetation in the Chino Basin, both spatially and over time.

Development and Implementation of the Upper Temescal Valley Salt and Nutrient Management Plan (SNMP)

Elsinore Valley Municipal Water District and Eastern Municipal Water District

Project Dates:
2013 - Present

Reference:
Margie Armstrong
Elsinore Valley Municipal Water District
Director of Strategic Initiatives
951-674-3146 x8306
marmstrong@evmwd.net

Al Javier
Eastern Municipal Water District
Director of Regulatory and Environmental Compliance
951-928-3777 x6327
javiera@emwd.org

Relevance: Demonstrates WEI's technical and policy competencies in salinity management in the Santa Ana River Watershed; demonstrates WEI's experience in the collection and management of complex water resources datasets to support salinity management; and exemplifies our continuing successful, innovative, proactive, and collaborative experience working with Santa Ana Regional Board.

Participating Team Members:
Samantha Adams
Mark Wildermuth
Veva Weamer

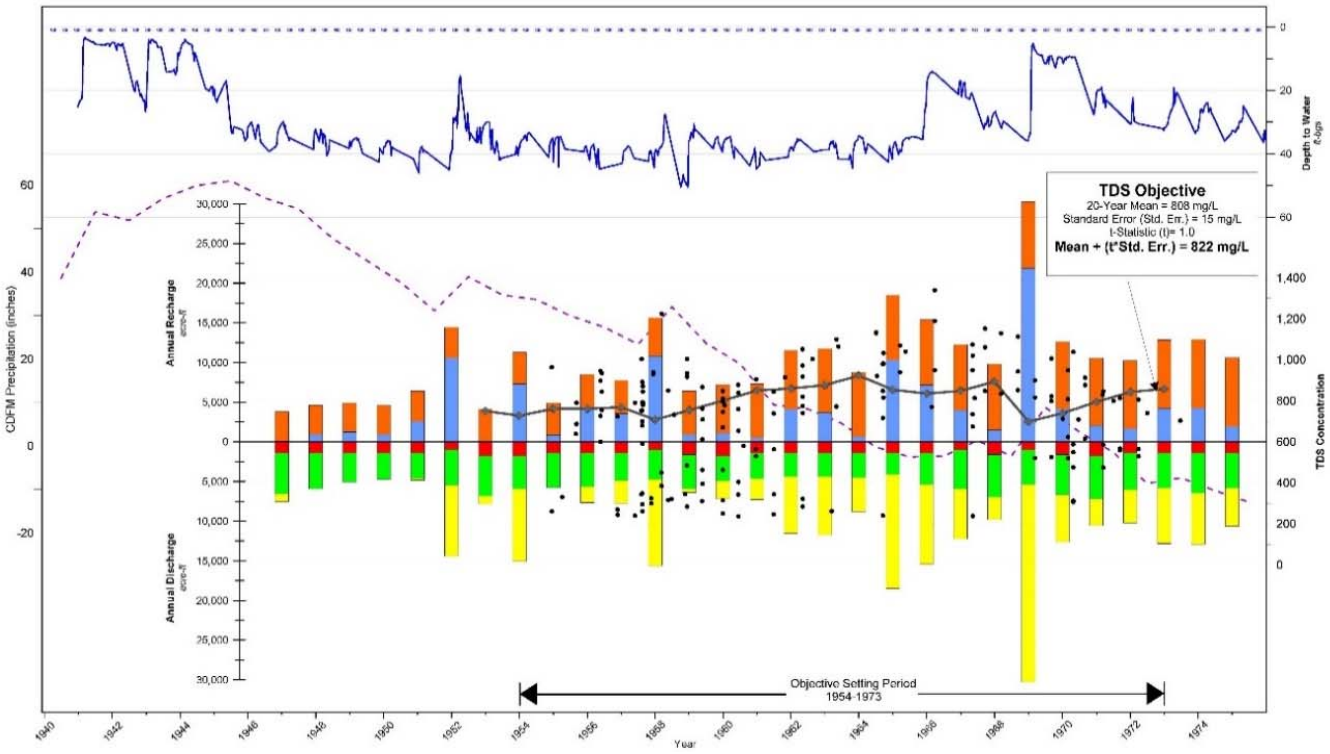
The Upper Temescal Valley (UTV) groundwater management zone (GMZ) is an updated GMZ that combines the existing Warm Springs, Lee Lake, and Bedford GMZs into one management unit for the purposes of salinity management. The UTV GMZ is an approximately 20-mile-long, narrow and shallow alluvial groundwater basin that is drained by the Temescal Wash between Lake Elsinore and the City of Corona. Three water supply agencies overlie and provide water supply services within the UTV GMZ: the City of Corona, the Temescal Valley Water District, and the Elsinore Valley MWD. These agencies also own and operate water reclamation facilities in the UTV that treat wastewater to tertiary standards before the water either is discharged to Temescal Creek and to percolation ponds or is reused for irrigation. The Eastern MWD also discharges tertiary treated wastewater to Temescal Wash.

The Regional Board issued mandatory minimum penalties to both the Elsinore Valley and Eastern MWDs for discharging recycled water to the Temescal Wash with TDS concentrations in excess of their respective discharge limitations and required both agencies to develop and implement a salt offset program to mitigate the mass load from discharges that were in excess of the Basin Plan TDS objective of the receiving groundwater basin (the UTV GMZ). However, due to historically limited data and information about the UTV GMZ, there were no established Basin Plan objectives from which to determine the mitigation requirement.

The Regional Board proposed using "best professional judgment" as the means for setting a Basin Plan Objective and a new TDS concentration discharge limitation in the absence of historical and current ambient water quality determinations for the UTV. This approach could have set arbitrarily low TDS compliance metrics and subsequently high compliance costs for the Elsinore Valley and Eastern MWDs with no substantive benefit to the environment. As an alternative compliance strategy, WEI proposed to develop a scientifically based methodology to calculate the historical, current, and projected future ambient water quality for the UTV GMZ, and to prepare an SNMP to document the technical work performed, to provide recommendations for setting antidegradation objectives for TDS and nitrate, to define a monitoring program to collect the data needed to compute ambient water quality on an on-going basis in the future, and to provide management actions to address any regulatory issues that arise as a result of the current and future recycled water plans of the agencies discharging and reusing recycled water in the UTV. The technical work performed by WEI demonstrated that the existing recycled water discharge limitations are protective of historical, current, and future projected ambient water quality.

The work performed to develop the SNMP represents the most comprehensive modern effort to collect, summarize, and analyze historical and current data and information on the water resources of the UTV Watershed. The work included:

- An extensive data mining effort to collect and catalog the following long-term datasets, many of which had not been identified in prior studies of the region: geologic maps and reports; historical documents on water supplies used in the UTV since the late 1800s; aerial imagery; borehole logs; land use; groundwater level, quality, and production; precipitation; and surface-water and POTW discharges.
- Estimation of historical and future irrigation return flows and associated TDS and nitrate concentrations from historical and projected land use and period-appropriate irrigation and fertilizer practices.
- Refinement and recalibration of the Wasteload Allocation Model (WLAM) in the UTV, a complex surface water model used to estimate historical stormwater runoff in the UTV Watershed and streambed infiltration to the UTV GMZs.
- Development of a constantly stirred reactor model to estimate historical, current, and future projected ambient TDS and nitrate concentrations in the UTV GMZ.
- Development of a groundwater and surface water monitoring program.
- Presentation of technical results and policy recommendations to regional stakeholders.
- Negotiation of regulatory compliance plans with the Regional Board.



This figure is a time-history plot of the numerous datasets used to estimate the historical ambient water quality of the Upper Temescal Valley GMZ, including depth to groundwater; precipitation trends; annual recharge volumes for stormwater infiltration (as computed by the WLAM) and the deep percolation of applied water; annual discharge volumes for production, evapotranspiration, and basin outflow; TDS concentrations at wells; and the volume-weighted TDS concentration as estimated by the constantly stirred reactor model.

SGMA Technical Support Services and Proposition 1 Grant Project

Colusa County and Glenn County

Project Dates:
2018 - Present

References:
Mary Fahey
Colusa County Water Resources Manager/Program Manager
Colusa Groundwater Authority 530-458-0719
mfahey@countyofcolusa.com

Lisa Hunter
Water Resource Coordinator
Glenn County Department of Agriculture
530-934-6501 x020105
hunter@countyofglenn.net

Relevance: Demonstrates West Yost's competencies in assessment of data gaps, developing monitoring networks to fill data gaps, construction hydrogeologic conceptual models, and supporting GSP development pursuant to the requirements of the SGMA and a Prop 1 grant.

Participating Team Members:
Ken Loy
Anna Reimer

West Yost assessed existing data and data gaps, developed a hydrogeologic conceptual model, conducted monitoring network assessments, and integrated hydrologic model evaluations to support development of GSP(s) for SGMA compliance. The work was conducted to support development and implementation of one or more GSPs for the groundwater subbasins underlying the two counties pursuant to the requirements of SGMA. The work consists of various projects performed through coordination of work conducted as part of Proposition 1 (Prop 1) Counties with Stressed Basins Grants awarded to each county and administered by DWR. The study area is composed of the high and medium priority groundwater basins as defined by DWR within Glenn and Colusa Counties, northern Sacramento Valley, California. The groundwater basins underlying the study area include the entirety of the Colusa Subbasin (5 21.52) and the southernmost portions of the Corning Subbasin (5 21.51) underlying Glenn County and the southern part of the West Butte Subbasin (5 21.58) underlying Glenn and Colusa Counties. West Yost's scope of work for the projects included:

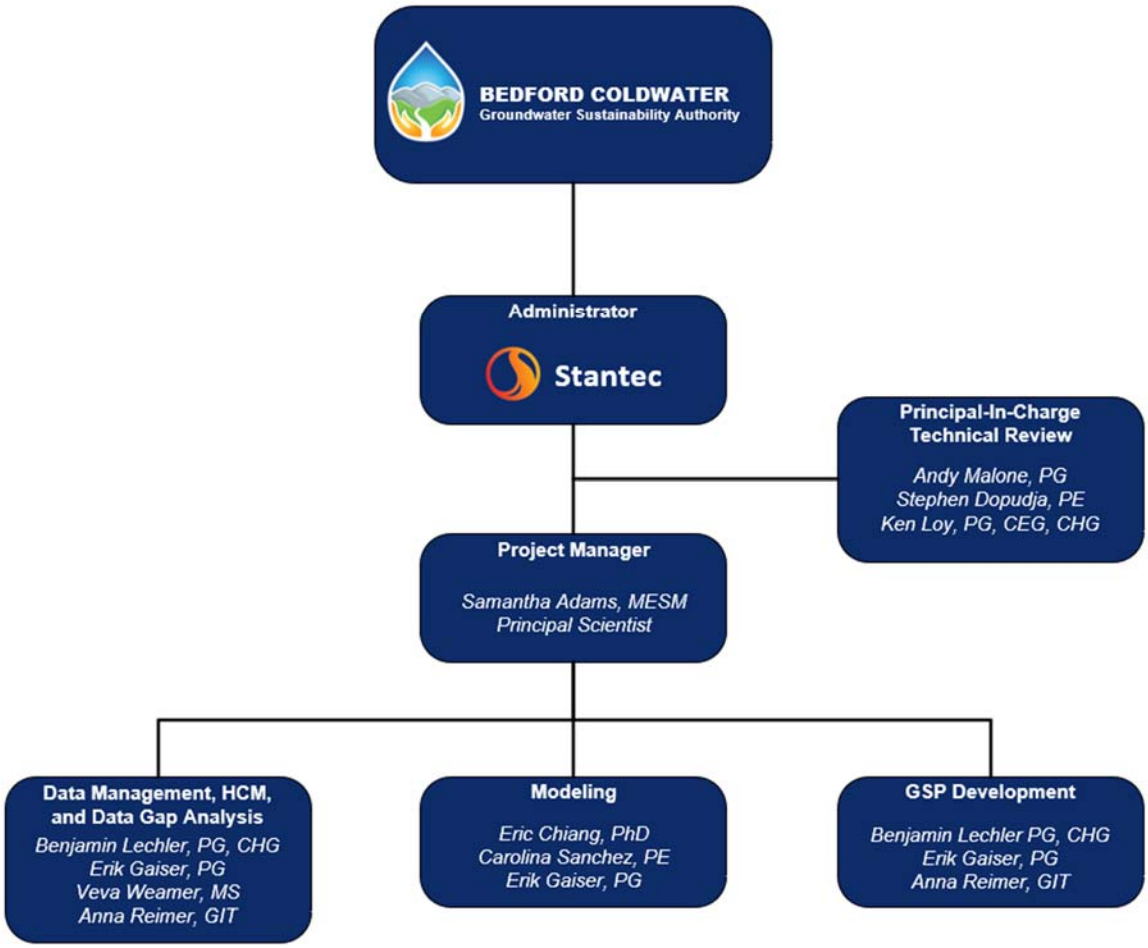
- Evaluating the existing and publicly available integrated hydrologic numerical models within the study area that may be used by Glenn County and its collaborators to support development and implementation of one or more GSPs;
- Assessing the adequacy of the dedicated monitoring networks proposed by the Counties of Colusa and Glenn to sufficiently support SGMA compliance, identifying potential data gaps in the dedicated monitoring networks, and making preliminary recommendations to remedy the data gaps; and
- Developing the hydrogeologic conceptual model (HCM) for the Colusa Subbasin and portions of the Corning and West Butte Subbasins within Glenn and Colusa Counties to support the preparation of future GSP(s). The HCM evaluated topography, land use, soils, streams and canals, and regional geology and structure in order to determine the principal aquifers. The principal aquifers were characterized for their water quality, usage, hydraulic parameters, known inflows and outflows, and physical characteristics. Data gaps and uncertainties were identified with regard to GSP development.

3. Key Personnel and Team Organization

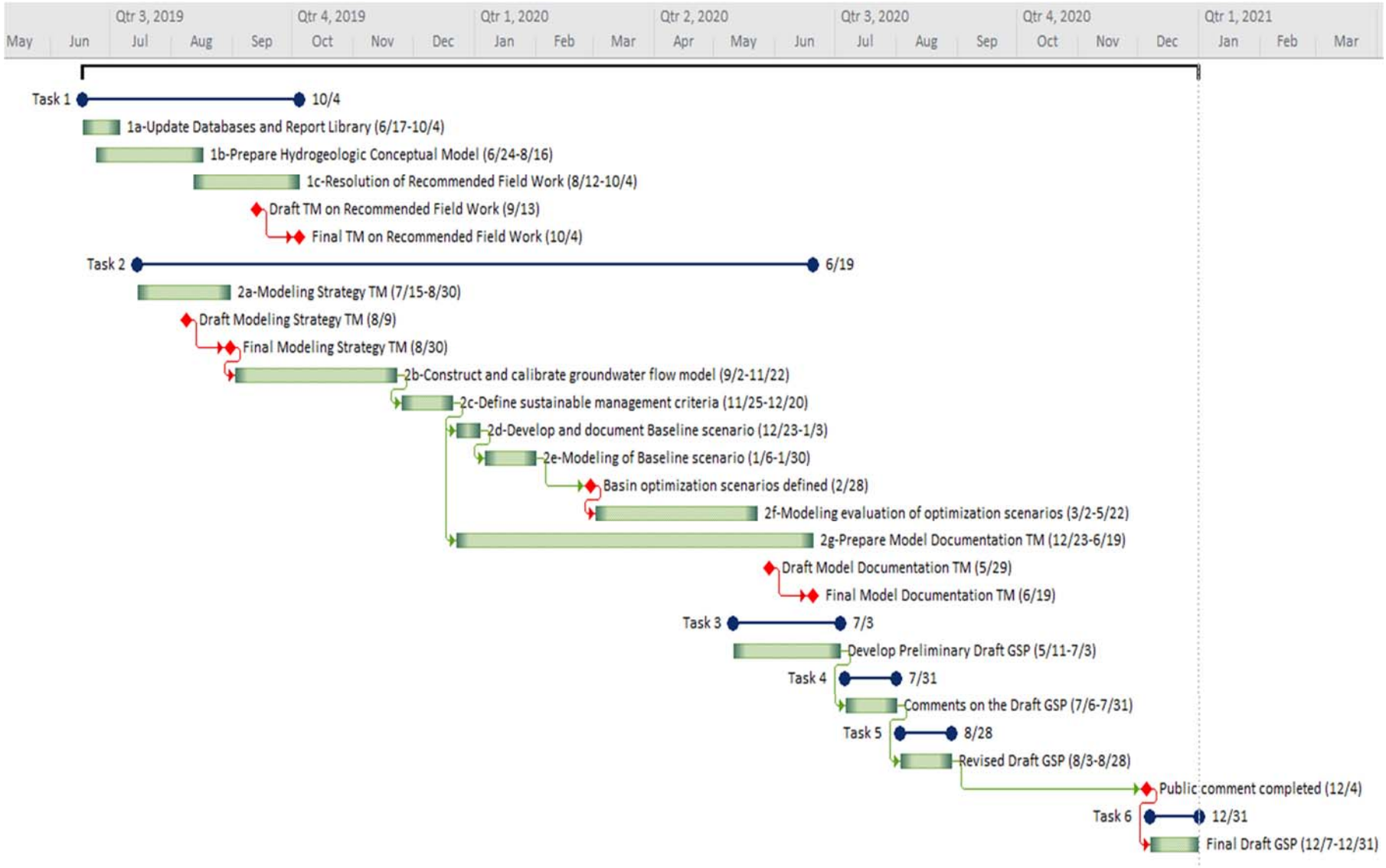
We have selected a team of highly skilled scientists and engineers to execute the scope of work outlined in *Section 1 – Project Understanding and Approach*. The WEI/WY team is uniquely qualified to provide the services required to develop GSPs pursuant to the SGMA and other hydrogeological services that may be requested by the BCGSA. With our team's combined experience and successes over the last 20 years in providing hydrogeologic services, SGMA compliance, annual reporting, and regulatory compliance support for multiple clients located in California, the BCGSA can be certain that the project will be executed in a technically proficient, high-quality and time-efficient manner.

The WEI/WY key project members and roles are presented in the following organization chart. Resumes for each key team member are in Appendix A.

Figure 3-1 Organization of the Project Team



The following figure presents the schedule to complete the Bedford Coldwater GSP over the period of June 16, 2019 through December 31, 2020.



RESUMES OF KEY PERSONNEL

Andy Malone, PG

Vice President, Principal Geologist

Expertise:	Mr. Malone is a Principal Geologist, Vice President, and Partner at Wildermuth Environmental, Inc. (WEI). He has over 24 years of professional experience in water resources consulting and the geologic sciences. His technical expertise includes sedimentary geology, tectonics, basin characterization, hydrogeologic and hydrologic analyses, aquifer mechanics, Geographic Information Systems, and database design and implementation. At WEI, Mr. Malone develops investigative strategies for hydrologic and hydrogeologic studies, works to increase the technical expertise of the company, manages projects and staff, and mentors junior staff, guiding them as they develop into WEI's next generation of expert water-resources professionals. At present, Mr. Malone is the project manager for WEI at the Chino Basin Watermaster, where he attends all meetings as the Watermaster Engineer, and is leading sophisticated hydrogeologic investigations for pumping-induced land subsidence, groundwater/surface-water interactions, and the monitoring of groundwater-dependent riparian habitat. Mr. Malone is also leading an effort with the Six Basins Watermaster to develop and implement an improved water-resources management program in the Six Basins. An emphasis of this program is to maximize the beneficial use of the groundwater basin—a local, renewable resource. Earlier in his career at WEI, Mr. Malone was the lead geologist in the development of a hydrogeologic conceptual model of the Chino Basin that was subsequently translated into a very well calibrated numerical groundwater-flow model. Mr. Malone continues to work with the modeling team at WEI to refine the conceptual model based on new geologic and monitoring data and to use the model to inform numerous basin-management initiatives. And, in his early career at WEI, Mr. Malone worked on re-defining groundwater sub-basin boundaries for the entire Santa Ana River Watershed, based on current hydrogeologic understanding, and recalculating TDS and nitrogen groundwater quality objectives to support the Regional Board's revision of its Water Quality Control Plan in 2004. Prior to joining the firm in 1996, Mr. Malone's professional experience included employment as a field geologist for the Indiana State Geological Survey and as a Geology instructor at Saddleback College in Southern California.
Education:	M.S., Geological Sciences, Indiana University at Bloomington, 1991 (Mr. Malone's M.S. thesis was published in a regional geological journal and won the journal's Best Paper Award in 1992.) B.A., Geological Sciences, University of California at Santa Barbara, 1987 B.A., Environmental Studies, University of California at Santa Barbara, 1987
Licenses:	Professional Geologist, California GEO 8700
Professional History:	WEI – 1996 to Present

Professional Experience:

Watermaster Engineering Services, Chino Basin Watermaster

WEI has served as the Engineer for the Chino Basin Watermaster since the early 1990s. Mr. Malone has worked on or managed various tasks for the Watermaster since joining WEI in 1996. Since 2015, Mr. Malone has been the project manager for WEI at the Watermaster. Described below are various projects and programs that Mr. Malone manages for the Watermaster:

Land Subsidence Management Programs*, Project Manager and Principal Geologist:* Mr. Malone is conducting ongoing investigations to determine the extent, rate, and mechanisms of land subsidence and ground fissuring in the Chino Basin. Though this is an ongoing project, its results were used to develop an adaptive management plan in the Chino Basin that will minimize and/or abate permanent land subsidence and ground fissuring in the future.

Prado Basin Habitat Sustainability Program, *Principal Geologist:* Mr. Malone is conducting ongoing investigations to determine whether the groundwater management plan in the Chino Basin is having adverse impacts on a groundwater-dependent riparian habitat in the downgradient portion of the basin.

Hydraulic Control Monitoring Program, *Principal Geologist:* Mr. Malone is conducting ongoing investigations to determine the state of groundwater outflow from the Chino Basin as rising groundwater in the Santa Ana River. Crucial groundwater management practices, such as the recharge of recycled water, are dependent upon the demonstration that basin producers are controlling groundwater outflow.

Technical and Administrative Services, Six Basins Watermaster

Principal Geologist: Mr. Malone and Ms. Carolina Sanchez manage and direct the technical and administrative services for the Six Basins Watermaster. Mr. Malone is also managing the development of a Strategic Plan for the Watermaster Board. The objective of the Strategic Plan is to develop a water-resources management program that sustains and enhances the water supplies available to the Six Basins in a cost-effective manner and in accordance with the Judgment.

Coldwater Basin Safe Yield Studies, Coldwater Basin Operating Committee

Project Manager and Principal Geologist: In 2006, Mr. Malone conducted an analysis of the native safe yield of the Coldwater Basin in Riverside County to establish the relative pumping rights of the two major pumpers of the basin—the City of Corona and the Elsinore Valley Municipal Water District. A water-rights agreement was executed between the City and the District based on this analysis. Mr. Malone directs the ongoing annual reporting on the Coldwater Basin as required by the agreement, which includes the accounting of pumping, storage, and water rights. The agreement also requires the re-determination of the native safe yield once every five years, based on the monitoring data collected to date. Mr. Malone and his staff performed the work to re-determine the native safe yield in 2013, which resulted in revised pumping rights for the next five years.

Samantha Adams

Vice President, Principal Scientist II

Expertise:	Ms. Adams has twelve years of professional experience in the water resources industry. Her technical expertise includes groundwater management planning, salt and nutrient management planning, regulatory support and compliance reporting, water supply and demand analysis, surface and groundwater quality analysis, development and implementation of field monitoring programs, and database management.
Education:	Ms. Adams received a B.S. in Environmental Science from the University of Notre Dame in 2002 and a Master of Environmental Science and Management (MESM)—specializing in water resources management—from the Donald Bren School of Environmental Science & Management at the University of California, Santa Barbara in 2006. As part of an MESM group project team, she played a key role in designing a *Framework for Developing a Sustainable Water Resources Management Plan for San Cristóbal de las Casas, Chiapas, Mexico*. Ms. Adams was awarded the 2006 Academic Achievement Award by the faculty of the Donald Bren School.
Professional History:	WEI – 2006 to Present
Relevant Professional Experience:	**2020 Update of the Chino Basin Optimum Basin Management Program (OBMP), Chino Basin Watermaster** Ms. Adams is serving as the project manager for the 2020 update of the Chino Basin OBMP. The OBMP is the Chino Basin's sustainable groundwater management plan. The 2000 OBMP was developed in a collaborative public process that identified the needs and wants of all stakeholders, described the physical state of the groundwater basin, developed a set of management goals, identified impediments to those goals, developed a series of actions that could be taken to remove those impediments and achieve the management goals, and developed agreements to implement the OBMP. Most of the planned actions contained in the 2000 OBMP were implemented and resulted in significant increases in the use of recycled water, increased storm and supplemental water recharge, groundwater storage, water quality protection and the maintenance of safe yield. Watermaster is now working on the 2020 OBMP Update and is using the same process developed by WEI for the 2000 OBMP. It is addressing current and projected challenges to water supply reliability from climate change, limitations in imported water supply and its reliability, new water quality challenges, basin salinity, land subsidence and groundwater dependent ecosystems. In addition to her role as project manager, Ms. Adams is responsible for preparing meeting materials and leading a series of eight public listening sessions to obtain stakeholder feedback that will guide the development of basin management activities and the ultimate OBMP 2020 implementation plan. Following each meeting, Ms. Adams prepares detailed memos to document the feedback provided during the Listening Sessions. The OBMP update will be completed in early 2020.

Water Rights Compliance and Basin Management Monitoring and Reporting Program, San Juan Basin Authority (SJBA). Ms. Adams is the principal-in-charge and has served as the project manager for the SJBA's water rights compliance and basin management monitoring and reporting programs since 2013 and has been involved as a project scientist since 2010. The objectives of the program are to collect, analyze, and report on the data used to demonstrate compliance with the SJBA's water rights diversion permit, estimate groundwater storage and recommend annual pumping limits, evaluate the threat of seawater intrusion, and assess riparian vegetation health along San Juan Creek. Ms. Adams directs the design and implementation of the field and cooperative data collection program and the preparation of various annual reports, oversees CASGEM compliance, manages biology sub-consultants, manages the implementation of a watershed-wide surface and ground water monitoring program in support of the Salt and Nutrient Management Plan for the San Juan Creek, participates in Technical Advisory Group meetings, and gives monthly presentations to the Board of Directors. In 2016, she managed the development of the Adaptive Pumping Management Plan, a first of its kind report for the San Juan Basin that sets annual sustainable pumping limits based on current basin storage and climate conditions.

Development and Implementation of the Upper Temescal Valley Salt and Nutrient Management Plan, Elsinore Valley Municipal Water District and Eastern Municipal Water District

Ms. Adams served as the project manager and lead scientist for the development of the Upper Temescal Valley SNMP. The Santa Ana Regional Board required the EVMWD and EMWD to prepare an SNMP to support their recycled water discharge and reuse plans in the Upper Temescal Valley. The objectives of this project were to establish scientifically based antidegradation objectives for the Upper Temescal Valley groundwater management zones (these objectives currently do not exist); estimate current ambient water quality and assimilative capacity; project future TDS and nitrogen concentrations based on the water resources management plans of local water supply agencies; identify the regulatory challenges posed by the recycled water reuse and discharge plans of the EVMWD and EMWD; and develop an SNMP that addresses these challenges. Ms. Adams was responsible for developing the technical basis of the demonstration, developing a long-term compliance strategy, leading negotiations with the Regional Board, and stakeholder outreach. The plan was approved for incorporation into the Basin Plan by the Executive Officer in November 2017. Ms. Adams is now serving as principal in charge for the implementation of the SNMP, which is focused on implementing a groundwater and surface water monitoring program in the Upper Temescal Valley.

Development of a Strategic Plan for the Six Basins, Six Basins Watermaster. Ms. Adams served as a project scientist, and is now a technical advisor, on the implementation of the *Strategic Plan for the Six Basins*, developed by WEI from 2012 through 2017. The objective of the Strategic Plan is to implement a water-resources management program that sustains and enhances the water supplies available to the Six Basins. The development of the Strategic Plan included the preparation of a comprehensive "state-of-the-basin" report; articulation of the issues, needs, and wants of the Watermaster parties—individually and collectively as a group; development of management alternatives; evaluation of the physical impacts of the management alternatives using a numerical groundwater model; scoping of project feasibility studies; and development of an implementation plan. Implementation activities for 2018 through 2019 include performing CEQA, updating the Watermaster Operating Plan in accordance with the Strategic Plan goals and objectives, developing implementation agreements, and supporting grant funding for Strategic Plan projects.

Erik Gaiser, PG

Supervising Geologist

Expertise:	Mr. Gaiser joined Wildermuth Environmental, Inc. (WEI) in July 2018. He brings with him 20 years of professional experience in the environmental and water resources consulting and drilling industries. His technical expertise includes: environmental site assessment (Phase I & II, adaptive design, and real-time data collection); well siting, design and rehabilitation; hydrogeology; depositional facies interpretation; conceptual site model development; fate and transport analysis; and environmental permit compliance. He has a long record of leading and contributing to the success of large-scale, complex projects throughout California and the United States. At WEI, Mr. Gaiser is taking a lead role in the on-call hydrogeologic services contract with the Coachella Valley Water District.
Education:	B.S., Geology, California State University, Fullerton, 2011
Licenses:	Professional Geologist, California No. 8879
Professional History:	WEI – 2018 to Present Yellow Jacket Drilling Services – 2015 to 2018 Tetra Tech – 2013-2015 ARCADIS – 2008 to 2013 Geoscience Support Services, Inc. – 2007 to 2008 ARCADIS – 2006 to 2007 Wayne Perry, Inc. – 1998 to 2006
Professional Experience:	**Large Plume Monitoring and Optimization, Edwards Air Force Base, CA** Mr. Gaiser was the lead hydrogeologist for the groundwater monitoring program at Edwards Air Force Base in Southern California. In this role he managed the monitoring and optimization program for 3,000+ wells across 13 Operable Units, supervised field staff, reviewed all reports, developed responses to comments provided by regulatory agencies, and represented the client in meetings with EPA and Regional Water Quality Control Board. He instituted the transition of all plume maps into a 3-dimensional modeling environment to more accurately understand contaminant distribution and lead efforts to refine conceptual site models using hydrostratigraphic analyses. Mr. Gaiser also designed and led a high-resolution adaptive design investigation in support of a 5-year Review Document. The investigation resulted in the successful delineation of two plumes in a 2-month period, identified a previously unknown extension of a local fault, and lead to the client receiving written accolades from regulatory agencies on the innovative and effective use of investigatory technologies to map contaminants under compressed time constraints. **Fate and Transport Study of Per- and Polyfluoroalkyl Substances (PFAS), Cape Canaveral Air Force Station, FL and Barksdale Air Force Base, LA** The primary objectives of this study were to assess the fate and transport of PFAS in the environment and provide samples for academic studies examining if bioremediation was a relevant attenuation mechanism for these emerging compounds.

As the lead geologist Mr. Gaiser designed and implemented field investigations using high-resolution methodologies, coordinated multifaceted field scopes under challenging logistical conditions, and regularly interfaced with Air Force Base personnel, members of academia, and AFCEC. The work required the application of his expertise in hydrostratigraphy and facies analyses to provide optimum data density for the depositional environments and client objectives. Data from the investigations provided valuable insight into the fate and transport potential of PFAS in various subsurface conditions and allowed the Air Force to better project the probable environmental liability should PFAS become regulated.

Shell Oil Products Program, California

Mr. Gaiser served as the Client Manager for two Shell Oil Products Environmental Engineers. In this role he was responsible for setting and managing budgets for approximately 120 retail gas station sites with a total annual expenditure between $5-8 MM. He regularly communicated project status and budget updates with clients, oversaw application for, and compliance with, a variety of environmental permits including NPDES, POTW, and CEQA negative declarations. Mr. Gaiser simultaneously served as the project manager for 30 retail sites where he planned, permitted and managed all site characterization activities and successfully designed and implemented numerous feasibility studies for remediation systems including soil vapor extraction, hi-vacuum dual-phase extraction, and in-situ bio-augmentation.

Extraction Well Design and Installation, Fillmore, CA

Mr. Gaiser served as the hydrogeologist in charge of re-designing and implementing dewatering activities during construction of a residential development in the Santa Clarita River floodplain. He designed, installed, and operated an extraction well network consisting of 7 wells pumping at 1,500 gpm each to overcome a substantial increase in transmissivity and lower ambient groundwater levels 20 feet below grade. The re-designed extraction array replaced an ineffective third-party array and allowed the on-time completion of a 100-year flood levee for the development.

Regional Recharge and Recovery (R^3) Project, Mojave Water Agency, CA

Mr. Gaiser was the senior hydrogeologist on a team during the initial phases of planning and investigation for MWA's R^3 Project. He assisted with the third-party evaluation and calibration of Mojave Basin Groundwater Model constructed by Schlumberger. Conducted initial sighting for and field evaluations of preliminary recharge and recovery locations within the project area. Project work resulted in approval of preliminary recharge and recovery locations by MWA and other stakeholders and served as the basis for procurement of additional Bond funding.

Antidegradation Analysis, Mono County, CA

The objective of this project was to conduct an antidegradation analysis in support of a CEQA Environmental Impact Report update. As the senior geologist, Mr. Gaiser researched basin groundwater-quality data, estimated groundwater flux based on limited regional data, and calculated groundwater-quality impacts from wastewater discharge from the proposed project under two separate buildout scenarios.

Eric W.H. Chiang, PhD

Principal Engineer I

Expertise:	Dr. Chiang has more than 30 years of professional experience in hydrogeologic engineering. His areas of expertise include hydrology, groundwater modeling, statistical analysis, numerical computer modeling, and software development. Dr. Chiang is proficient in major programming languages (C/C++/C#, FORTRAN, JavaScript, Visual Basic), relational database design, and the development of client-server applications. Dr. Chiang developed Processing Modflow, a groundwater modeling software package that supports MODFLOW, MT3DMS, RT3D, PHT3D, PEST, and other numerical models. He has applied Processing Modflow on a number of groundwater modeling projects and has developed groundwater flow and transport models for landfills, mines, and regional groundwater resource management. Dr. Chiang has also developed two-dimensional and three-dimensional visualization applications, seamlessly integrating measured environmental data with digital maps and numerical groundwater modeling results.
Education:	Ph.D., Civil Engineering, University of Kassel, Germany, 1998 M.S., Civil Engineering, University of Stuttgart, Germany, 1989 B.S., Civil Engineering. National Central University, Taiwan, 1983
Professional History:	WEI – 2006 to Present Integrated Environmental Services, Inc. – 2002 to 2006 University of the Free State, South Africa – 1999 to 2001 Geological Survey of Hamburg, Germany – 1993 to 1998 Department of Civil Engineering, University of Kassel, Germany – 1989 to 1993
Professional Experience:	***Wildermuth Environmental, Inc.*** As a Principal Engineer at Wildermuth Environmental, Inc. (WEI), Dr. Chiang is responsible for the development of cutting-edge software applications, such as HydroDaVE℠ (Hydrologic Database and Visual Explanations) for water resources, including simulation modeling and relational database management systems/geographic information systems (RSBMS/GIS). Dr. Chiang has also developed a computer application (Seer3D) for the 3D visualization and animation of regional groundwater models and model results, including model boundary conditions, groundwater levels, flow vectors, flow lines, and plume migration. He is involved in the development of a Relational Database Management System and client-service applications for storing and visualizing regional groundwater and surface water data, utilizing cloud computing technology. **Storage Framework, Chino Basin Watermaster** Dr. Chang serves as the lead modeler for developing minimum sustainability thresholds by identifying groundwater levels that protect against new land subsidence and ensure pumping sustainability, to develop a relationship of storage to net recharge, and to develop a storage framework that identifies operation and mitigation parameters (if needed) for the safe storage and recovery of water at various levels of storage. For this

project, several groundwater model scenarios were developed, based on estimated future pumping and associated recharge plans. Dr. Chiang developed the new land subsidence sustainability metric based on historical observed groundwater level data and groundwater model results. Using the Processing Modflow software, authored by Dr. Chiang, several animation videos were developed to depict the contours of groundwater depth above the pumping and new land subsidence sustainability metrics based on the results of various scenarios of the Chino Basin Groundwater Flow Model.

Maximum-Benefit Demonstration for the Elsinore Groundwater Management Zone, Elsinore Valley Municipal Water District

Dr. Chiang serves as the lead groundwater modeler for developing a maximum-benefit demonstration to raise the total dissolved solids (TDS) and nitrate concentration objectives for the Elsinore Groundwater Management Zone (GMZ) in the Water Quality Control Plan for the Santa Ana River Basin (Basin Plan). The District is seeking new, maximum benefit-based TDS and nitrate concentration objectives such that it can have the flexibility to develop and invest in a water resources plan that optimizes the management and use of all its water supply assets to achieve a reliable water supply in an environmentally sound manner. Dr. Chiang is responsible for developing a numerical groundwater model to develop TDS and nitrate concentration projections for the Elsinore GMZ, based on the EVMWD's Integrated Resources Supply Plan. The groundwater model is being developed with the Processing Modflow software, authored by Dr. Chiang.

2015 Safe Yield Redetermination and Reset for the Chino Basin, Chino Basin Watermaster

Dr. Chiang obtained all historical precipitation and temperature data from surface stations and radar estimates, PRISM, and spatially disaggregated and bias-corrected projections of precipitation and temperature from NASA for the available GCM projections. This information was stored in WEI's HydroDaVE℠ system. Dr. Chiang compared historical and GCM projected precipitation information at various locations in the Upper Santa Ana Watershed to determine the reliability of using GCM-based projections of precipitation to compute stormwater recharge and the deep infiltration of precipitation and applied water. This information was used in the estimation of Safe Yield in the Chino Basin.

Selected Publications / Presentations

Chiang, W. H. (2005). *3D-Groundwater Modeling with PMWIN – A Simulation System for Modeling Groundwater Flow and Pollution Processes* (2nd Ed.). New York: Springer-Verlag Berlin Heidelberg.

Kinzelbach, W., Aeschbach, W., Alberich, C., Goni, I. B., Beyerle, U., Burner, P., Chiang, W. H., Rueedi, J., & Zoellmann, K. (2002). *A Survey of Methods for Analyzing Groundwater Recharge in Arid and Semi-arid Regions.* United Nations Environmental Programme. ISBN 92-807-2131-3.

Veva Weamer

Supervising Scientist

Expertise:	Ms. Veva Weamer joined the Wildermuth Environmental Inc. (WEI) team in 2008. Her technical expertise includes: groundwater and surface water data analysis; geographical information systems (GIS); database management using WEI's relational database software HydroDaVE; water quality investigations; implementation and analysis of salt and nutrient management programs for groundwater basins; projections of ambient TDS and nitrate concentrations for groundwater basins; monitoring and analysis for groundwater dependent vegetation; groundwater and surface water monitoring program implementation and evaluation; regulatory compliance reporting, and preparing technical reports.
Education:	M.S., Environmental Studies, California State University, Fullerton, December 2007 B.S., Geological Sciences, California State University, Fullerton, June 2005
Professional History:	WEI – 2008 to Present

Professional Experience:

Watermaster Engineering Services, Chino Basin Watermaster

WEI has served as the Chino Basin Watermaster's Engineer since the early 1990s. Described below are some of the various projects and programs that Ms. Weamer manages for the Watermaster:

Chino Basin Watermaster Groundwater and Surface Water Database: Ms. Weamer is responsible for overseeing the management and maintenance of the Chino Basin Watermaster's database with updated groundwater elevation, groundwater quality, groundwater production, surface water discharge, and surface water quality data. She manages a team of WEI staff scientists and field technicians that collect, compile, and upload all field program and publicly available datasets online, and coordinates with public and private entities within the Chino Basin on a routine basis to keep the database up-to-date. Ms. Weamer is responsible for the review and QA/QC all data collected and uploaded to the database. The Chino Basin Watermaster database is critical to support a variety of Watermaster functions, such as reporting for various regulatory requirements and analyses to understand changes in the basin as groundwater management strategies are implemented over time.

Prado Basin Habitat Sustainability Program, Prado Basin Habitat Sustainability Committee: Ms. Weamer manages the Prado Basin Habitat Sustainability Program (PBHSP), developed and implemented by the Prado Basin Habitat Sustainability Committee (PBHSC), which is comprised of Chino Basin Stakeholders, pursuant to requirements of the Peace II Agreement Subsequent Environmental Impact Report. The key element of the PBHSP is an adaptive monitoring program intended to characterize the historical, current, and future extent and quality of the riparian habitat in the Prado Basin Management Zone in the southern portion of the Chino Basin, and to provide

information on the cause(s) of riparian habitat degradation if documented. The monitoring program consists of integrated programs for the monitoring of riparian habitat and monitoring of factors that can potentially affect riparian habitat, which include groundwater, surface water, weather, and climate. Data from the monitoring program is analyzed, interpreted, and reported on annually. Ms. Weamer is responsible for managing all components of the monitoring program for the PBHSP.

Regulatory Support for California's Sustainable Groundwater Management Act (SGMA) reporting for Adjudicated Basins: Ms. Weamer provides regulatory support services for the Chino Basin Watermaster for compliance with adjudicated basins reporting requirements pursuant to the SGMA. The SGMA requires that Watermaster or a local agency of an adjudicated basin identified in Water Code Section 10720.8(a) submit specific data and information for the previous water year annually to the DWR by April 1 each year. Ms. Weamer attends meetings and workshops with the DWR and other adjudicated basin agencies and coordinates with the DWR on various matters concerning the annual reporting requirements to ensure that Watermaster is complying with the requirements of SGMA legislation. Ms. Weamer helped develop the process for the Watermater to satisfy their annual reporting requirements for the first year in 2015 and the years following. This includes compilation of all required data and information from the Watermaster parties, coordination with modeling staff at WEI to calculate an annual change in storage for the Chino Basin, preparation of a Memorandum for Watermaster parties to describe the data and information to be submitted each year for their approval, and submittal of the annual reporting requirements to the DWR by April 1.

Database Management and Analysis of Groundwater and Surface Water Data using HydroDaVE^{SM}, Various Clients

Ms. Weamer is responsible for the management of various groundwater and surface water data collection programs using WEI's relational database software, HydroDaVE. This includes well information data, groundwater-quality data, groundwater-level data, production data, surface water station information, and surface water quality and flow data. The data is obtained through various field monitoring and cooperative collection programs and from publicly available datasets available online. Ms. Weamer performs administrative tasks to maintain database integrity. The data are reviewed thoroughly, processed into HydroDaVE format, and uploaded into the database. The data are thoroughly checked for quality control and assurance upon upload. Ms. Weamer performs sophisticated analyses of data in HydroDaVE for various groundwater management issues and executes the analysis of data extracted from the database in support of client reports and investigations. She has managed data for numerous clients, including the Chino Basin Watermaster, San Gabriel Water Quality Authority, Elsinore Valley Municipal Water District, Mammoth Community Water District, Santa Ana Watershed Project Authority, Cucamonga Valley Water District, City of Beaumont, and San Juan Basin Authority.

WEST YOST ASSOCIATES

Stephen Dopudja, PE

Stephen Dopudja is consulting civil engineer and a West Yost Vice President with specialized experience in managing water resources projects. His experience includes residential land development and roadway infrastructure improvements, including storm drains. His capabilities range from the planning and computer modeling of water and sewer systems, serving as an Owner's Advisor, to the design and construction of water resource facilities including pump stations, reservoirs, and pipelines. He is experienced in using a variety of project delivery methods including Design-Build, traditional Design-Bid-Build and Public Private Partnerships. Throughout his career, Stephen has worked for private engineering firms in the Southern California area, ranging in size from four employees to 46,000. He has also worked on several international projects.

RELEVANT EXPERIENCE

Public Private Partnership Transaction Services, City of Rialto, CA:
Principal-in-Charge of exploring the feasibility of entering into a 30- year concession agreements or long-term operation agreements for the City of Rialto's domestic water, recycled water, and wastewater collection systems. The City of Rialto wanted to investigate alternatives for procurement of water and wastewater capital delivery and operations services. Services included preparing the RFP, technical appendices, and assistance in preparing the draft and final contract documents. As part of this investigation, Stephen helped evaluate the potential financial impacts of the concession and long-term management alternatives. The financial planning work included preparation of water and wastewater pro forma projections. Additional responsibilities included oversight of the rate impacts and community messaging. Stephen continues in his role to provide ongoing oversight support services for this assignment.

La Bonita Park Water Infrastructure Facilities, City of La Habra, CA:
Project Manager for the preparation of a detailed preliminary design report for the pump and discharge piping for a newly drilled 850 gpm well. In addition, the project included a 16-inch water line to transport import source water to a new 0.25 mg buried concrete reservoir. The well and import source water blend within the tank and are pumped by an 8,000 gpm booster pump station which discharges to a new 24-inch distribution main serving the City's municipal system. The preliminary design was used for the procurement of a final design/build contractor. The project scope included design coordination with the City of La Habra Public Works and Planning Departments and various vendors and subcontractors. Services also included construction management and specialty inspection support to the City of La Habra during construction of the pipeline, well, reservoir, and booster facilities. Numerous civil inspections included concrete and rebar, piping and pipe welding, pump and motor, HVAC, electrical, and geotechnical.

Staff Title: Vice President

Years of Experience: 29

Professional Registrations

- Professional Civil Engineer, California No. 65187

Education

- BS, Civil Engineering, University of Southern California, Los Angeles

Professional Affiliations

- American Water Works Association
- Association of California Water Agencies
- CalDesal
- California Association of Sanitation Agencies
- Colorado River Water Users Association
- Independent Special District of Orange County
- Orange County Water Association
- Trabuco Canyon Water District - Director
  - Engineering Committee
  - Finance Committee Chair
  - South Orange County Wastewater Authority Representative
  - Municipal Water District of Orange County Representative
- Urban Water Institute
- Water Advisory Committee of Orange County

North Well Replacement Project, Western Municipal Water District, Murrieta, CA: Principal-in-Charge for hydrogeologic services and engineering design to replace the North Well in Western Municipal Water District's Murrieta Division. The existing well was removed from service due to sand production and casing failure. The scope of work includes the destruction of the existing well and above-grade facilities, replacement of the waste drain line for the well, design and equipping of a new 1,000-foot-deep, 1,000 gpm production well, and design of above-grade facilities including a concrete masonry unit building to house electrical equipment and chemical facilities.

Eastern Municipal Water District (EMWD) Turnout #5, EMWD and Elsinore Valley Municipal Water District, Lake Elsinore, CA: Principal-in-Charge for the design and construction of a 54-inch by 30-inch turnout facility. Responsible for all aspects of the project, including traffic control plans, coordination with Southern California Edison, extensive coordination with the City of Lake Elsinore and respective water agencies.

Sierra Madre Reservoir Site Rehabilitation, City of Azusa, CA: Project Engineer for site and grading improvements for a 1½ acre reservoir site. Improvements began with a soil percolation and stormwater runoff analysis to determine if existing drainage facilities had enough capacity to accommodate a 20-year storm with extensive AC paving of the site. After it was determined that costly drainage improvements would be required, a design was utilized using crushed aggregate over a non-woven geotextile material. Concrete gutters were designed at specific elevations above finished grade of the soil, but below finished grade of the aggregate cover. This design allowed the site to retain and percolate the initial storm peak while extended overflows were diverted by the existing drains without flooding the site.

On-Call Plan Check Services, Irvine Ranch Water District, Irvine, CA: Project Manager for the review of water and sewer plans for the District to check compliance with their standards and construction feasibility.

On-Call Assistance Services, Irvine Ranch Water District, Irvine, CA: Project Manager to provide the District with any project management or staffing needs.

Water, Wastewater, Recycled Water and Asset Management Master Plans, City of Rialto, CA: Principal-in-Charge for the Water, Wastewater, and Recycled Water Master Planning services for the City of Rialto in support of their concession agreement. Each Master Plan report addressed comprehensive planning, engineering criteria, flow/demand projections, hydraulic modeling, regulatory requirements, operations and maintenance activities, and recommendations for improvements. The potable water master plan also specifically addresses supply sources and storage volume evaluations. The City's water system serves several industrial complexes and consists of multiple pressure zones. The scope also includes an Asset Management task to determine the funding level needs to replace and refurbish system assets and a schedule for planning the replacement and refurbishment of system assets.

Wastewater Master Plan Update, City of Rialto, CA: Project Manager for the GIS collection, computer modeling and master planning of the City's backbone sewer collection system. The GIS collection was required due to the minimal existence of any accurate atlas plans or system as-built plans. All system manholes were located in the field using survey GPS and entered into the GIS database. The backbone system was then modeled under multiple scenarios to determine existing and future deficiencies. A master plan with recommended improvements and associated cost was also prepared and presented to the client.

Montebello Hills Water Master Plan, Cook Hill Properties, Montebello, CA: Principal-in-Charge for the Domestic Water System and Recycled Water System Planning and assisted the developer in negotiating with the local water company for updated planning and design criteria for a new development that consisted of approximately 400 acres and 1,200 homes. This project involved careful preparation with the environmental impact report as well as the preparation of a master plan and cost estimates.

Water Master Plan, Crescenta Valley Water District, La Crescenta, CA: Project Manager, responsible for planning and computer modeling of the District's complex distribution system. The master plan involved a detailed modeling to analyze all of the distribution systems piping. This master plan was unique due to complexity and age of the system. A total of eleven pressure zones were modeled.

WEST YOST ASSOCIATES

Ken Loy, PG, CEG, CHG

Ken Loy is a certified hydrogeologist and engineering geologist with experience in engineering consulting emphasizing hydrogeologic and water quality characterization, data analysis, and modeling. Ken has characterized hydrogeologic conditions, assessed land and water use practices and applied numerical groundwater flow models in conjunctive use evaluations, groundwater impacts analyses and water supply planning efforts. He has performed numerous water quality evaluations and has used numerical flow and transport models to evaluate the movement of groundwater contaminants. He has been involved in several land subsidence evaluations, designed wells, and provided design services during construction of wells.

RELEVANT EXPERIENCE

Colusa County & Glenn County SGMA Technical Support Services and Proposition 1 Grant Project, Counties of Colusa and Glenn, CA: Principal Hydrogeologist for a project to assess existing data and data gaps, develop a hydrogeologic conceptual model, conduct monitoring network assessments, and conduct integrated hydrologic model evaluations to support development of GSP(s) for SGMA compliance. The work was conducted to support development and implementation of one or more GSPs for the groundwater subbasins underlying the two counties pursuant to the requirements of SGMA. The work consists of various projects performed through coordination of work conducted as part of Proposition 1 (Prop 1) Counties with Stressed Basins Grants awarded to each county and administered by DWR. The study area is composed of the high and medium priority groundwater basins as defined by DWR within Glenn and Colusa Counties, northern Sacramento Valley, California. The groundwater basins underlying the study area include the entirety of the Colusa Subbasin (5 21.52) and the southernmost portions of the Corning Subbasin (5 21.51) underlying Glenn County and the southern part of the West Butte Subbasin (5 21.58) underlying Glenn and Colusa Counties. West Yost's scope of work for the projects included:

Evaluating the existing and publicly available integrated hydrologic numerical models within the study area that may be used by Glenn County and its collaborators to support development and implementation of one or more GSPs;

Assessing the adequacy of the dedicated monitoring networks proposed by the Counties of Colusa and Glenn to sufficiently support SGMA compliance, identifying potential data gaps in the dedicated monitoring networks, and making preliminary recommendations to remedy the data gaps; and

Developing the hydrogeologic conceptual model (HCM) for the Colusa Subbasin and portions of the Corning and West Butte Subbasins within Glenn and Colusa Counties to support the preparation of future GSP(s). The HCM evaluated topography, land use, soils, streams and canals, and regional geology and structure in order to determine the principal aquifers. The principal aquifers were characterized for their water quality, usage, hydraulic parameters, known inflows and outflows, and physical characteristics. Data gaps and uncertainties were identified with regard to GSP development.

Staff Title: Principal Geologist II

Years of Experience: 30

Professional Registrations

- Professional Geologist, California No. 7008, Arizona No. 67038, Texas No. 10653, Utah No. 7477627-2250
- Certified Hydrogeologist, California No. 720
- Certified Engineering Geologist, California No. 2214

Education

- MS, Geohydrology , University of Arizona, Tucson, Arizona
- BS, Geophysics, University of Arizona, Tucson, Arizona
- Master's Certificate in Project Management, The George Washington University, Washington, DC

Professional Affiliations

- National Groundwater Association
- Association of Engineering Geologists
- Groundwater Resources Association
- Association of California Water Agencies
- American Water Works Association

On-Call Well Evaluation and Rehabilitation Services and Municipal Well Siting, Sacramento Suburban Water District (SSWD): Project Manager to provide GIS and hydrogeologic services for development and implementation of a GIS-based Municipal Well Site Evaluation, Ranking, and Selection Methodology (Well Site Selection Methodology). Working with the District, West Yost identified site selection criteria and information needed to identify, evaluate, screen, rank, and select potential well sites; developed GIS tools needed for Methodology implementation; provided technical support to District for public meetings and internal meetings; and provided GIS files, geodatabases, and documentation of GIS procedures supporting future well site selection efforts.

South East Bay Plain Basin Characterization Study, East Bay Municipal Utility District: Hydrogeologist for this regional groundwater assessment being completed in support of a Groundwater Management Plan for the study area which includes Oakland, Port of Oakland, San Leandro, San Lorenzo, Alameda and City of Hayward. Activities included a comprehensive data compilation, review and assessment to evaluate of basin characteristics including: delineation of basin boundaries, evaluation of groundwater flow, groundwater quality, geologic setting, hydraulic properties of aquifers and aquitards, and evaluation of monitoring networks. This work was accomplished by using available information retrieved from multiple local, state, and federal agencies. An existing numerical groundwater was converted to MODFLOW and updated and calibrated to represent an improved understanding of basin conditions. West Yost documented the basin assessment and groundwater modeling work in a detailed groundwater report that describes methodology, evaluation results, and recommendations for future studies and monitoring. The project report includes easy-to-understand maps, charts, and cross-sections developed with Arc Hydro, ArcGIS, and Excel.

Yolo County Integrated Groundwater and Surface-Water Model Updates and Refinement, Woodland-Davis Clean Water Agency (WDCWA): Principal Hydrogeologist responsible for developing the ASR component of the WDCWA's DWWSP, which includes updating the Yolo County IGSM model with updated simulation of agricultural consumptive use, refined layering, and updated agricultural and urban supply and demand information. This effort required a very comprehensive understanding of the Yolo County groundwater system, and the land and water use conditions that affect the groundwater system, because the model simulates land and water use practices, including agricultural process, root zone process, groundwater processes and stream flow. The work was conducted collaboratively with input from the staff of Yolo County stakeholders, other consultants and DWR.

Sacramento Valley Groundwater Assessment Report, Northern California Water Association (NCWA) / Macaulay Water Resources: Principal Hydrogeologist on the consulting team that prepared the Sacramento Valley Groundwater Assessment Report and Technical Supplement for NCWA. The report provides an overview of the Sacramento Valley's groundwater resources and the efforts to better understand and actively manage the resources to provide sustainable benefits for the Sacramento Valley, and includes sections on the historical development of land and water resources; the ongoing efforts for sustainable groundwater management; the effects of increasing use of groundwater; and recommendations for the future. Ken provided a key technical role in authoring report sections describing the Sacramento Valley aquifer system; historical and projected groundwater level and quality trends; inelastic land subsidence; interactions between groundwater and stream flow; groundwater models applied in the Sacramento Valley; and the existing framework for groundwater management.

Groundwater Management Plan Preparation, City of Woodland, CA: Project Manager and Principal Hydrogeologist. The City was entirely reliant on groundwater obtained from 24 wells for its municipal supply. Groundwater was used for domestic drinking water and agricultural supply in the surrounding areas of Yolo County. The Yolo Subbasin has documented groundwater issues, including inelastic land subsidence due to groundwater withdrawal and water quality problems. Significant water quality problems include elevated nitrate and boron concentrations and salinity levels. Prepared a groundwater management plan addressing these issues. Assisted the City in meeting the documentation and schedule requirements for enabling eligibility for state funding. Specific tasks included performing public outreach and stakeholder coordination; developing groundwater management goal and basin management objectives; preparing the plan; and attending public meetings.

Dunnigan Water District Groundwater Management Plan, Yolo County, CA: Principal Hydrogeologist during plan preparation and implementation. Evaluated and documented hydrogeologic conditions including aquifer hydraulic properties, recharge sources and potential, historical variations in storage with hydrologic conditions, water quality, typical well construction and typical well yield. Provided recommendations supporting preparation of a groundwater management plan, including recommended groundwater monitoring locations, stream gauging locations and recommendations for the content of the plan.

Solano Sub-basin Groundwater Management Planning, Yolo and Solano Counties, CA: Principal Hydrogeologist and Project Manager during evaluation of basin management objectives for the Solano Sub-basin. Some of the stakeholders adopted groundwater management plans in the late 1990's. Supported efforts to evaluate the existing groundwater management plans and identify basin management objectives that the stakeholders held in common. The effort involved reviewing existing groundwater management plans, agreements and technical studies, and meeting with the stakeholders to develop consensus on basin management objectives. The outcome of the effort was a technical document that is available to guide preparation of up-to-date groundwater management plans by sub-basin stakeholders.

WEST YOST ASSOCIATES

Benjamin J. (BJ) Lechler, PG, CHG

BJ Lechler is a professional geologist who provides groundwater consulting services and managing projects for municipal, industrial, and federal clients. Technical experience includes participation in basin-scale groundwater quality and water resources evaluations; hydrogeologic conceptual model development; contaminant source, nature and extent, and fate and transport evaluations; aquifer testing and analysis; borehole geophysics and well profiling projects; water supply well, extraction/injection well, and monitoring well (single-screen, multi-port, and nested) siting, design, construction, and testing projects; exploratory borehole drilling and sampling using a wide variety of techniques. His experience includes managing groundwater projects with large stakeholder groups involving municipalities, water agencies, State and Federal regulatory agencies and private parties.

RELEVANT EXPERIENCE

SGMA Technical Support Services and Proposition 1 Grant Project, Counties of Glenn and Colusa, CA: Senior Hydrogeologist working as a subconsultant to develop a hydrogeologic conceptual model and conduct groundwater evaluations to support the implementation of one or more groundwater sustainability plan for subbasins underlying the two counties. Work included developing the HCM for the Cousa Subbasin using SGMA criteria and DWR BMPs, evaluating the groundwater monitoring network and data gaps in the HCM. Evaluating the monitoring networks included compiling the available information on the existing networks and monitoring locations, evaluating the networks for SGMA compliance, identifying data gaps, and recommending activities to fill data gaps.

Goldsworthy Desalter Expansion, Brackish Groundwater Supply Wells, Water Replenishment District of Southern California, Torrance, CA: Senior Hydrogeologist and Project Manager for a project addressing remediation of the seawater plume in coastal portion of the West Coast Basin and supplying an expanded desalter facility for alternative water supply. To achieve these objectives, the scope of work included siting and installing two new brackish water extraction wells each having chloride concentrations greater than 1,000 mg/L and capable of yielding 2,200 gpm. Acted as project manager and technical lead for the siting, design, installation, and testing of two new brackish water supply wells. Responsibilities included preparation of hydrogeologic cross-sections to identify potential well sites to meet the target chloride and well yield, assistance with California State Water Resources Control Board, Division of Drinking Water (CDDW) and RWQCB permitting, preparation of technical specifications and plans for installation and testing of the wells, bid support to the owner, technical oversight of well installation and testing program, well design, design of the aquifer testing program, analysis and presentation of well installation and testing data. Aquifer testing program included conducting constant-rate pumping tests, spinner/flowmeter logging, and depth-specific water quality sampling with the pump intake at two different depth settings in each well. Results of the aquifer testing were used to select the depth setting for the pump intake that maximizes chloride concentration.

Staff Title: Senior Geologist II

Years of Experience: 16

Professional Registrations

- Professional Geologist, California No. 8229
- Certified Hydrogeologist, California No. 1071

Education

- MS, Hydrology, New Mexico Institute of Mining and Technology
- BS, Geology, University of Cincinnati

Professional Affiliations

- Groundwater Resources Association of California
- Orange County Water Association

Saugus Formation VOC Investigation, Nossaman LLP and Castaic Lake Water Agency, Santa Clarita, CA: Senior Hydrogeologist and Project Manager for project to identify the potential source(s) of VOC contamination in two water supply wells which produce groundwater from a complex multi-layered bedrock aquifer overlain by an alluvial aquifer. Responsibilities include identifying appropriate search area and potential source facilities for the VOCs, review of documents for facilities identified as potential VOC sources, evaluation of regional groundwater flow conditions and the distribution of VOCs in multiple aquifer units, development of conceptual migration pathways for VOC migration from potential sources to impacted water supply wells, and identification of data gaps and recommendations for additional regional investigations. Primary author of investigation report submitted and presented to state regulatory agencies (DTSC and CDDW). Project management activities include supporting client in negotiations with regulatory agencies and potentially responsible parties, management of staff, and budget for investigation.

Conceptual Site Model Development, Aquifer Testing, and Numerical Modeling, Confidential Client, Mojave Desert, CA: Senior Hydrogeologist for review of existing documentation, preparation of a conceptual site model, oversight and technical support of aquifer testing and remedial system recommissioning, numerical groundwater flow and transport modeling, and identifying data gaps needed to complete the technical and cost analysis of plume containment and remediation options. The plume is over two miles long and one mile wide, consisting of high total dissolved solids groundwater (primarily sulfate) impacting the alluvial regional water supply aquifer and fractured basalt units in a structurally complex hydrogeologic setting. Responsible for data review, development of a conceptual site model, and preparation of a comprehensive conceptual site model report. Other tasks included technical direction of a three-dimesional EVS model development, technical support for aquifer testing, and translation of the conceptual model into the numerical flow model. A groundwater flow model is currently being developed for remedial evaluations.

Eastern Santa Clara Subbasin Groundwater Study; U.S. Army Corps of Engineers, Santa Clarita, CA: Senior Hydrogeologist and Project Manager for RI/FS (under CERCLA framework) to evaluate regional perchlorate contamination from a former munitions testing and manufacturing facility. The perchlorate plume is greater than 3 miles long and has impacted seven deep (up to 2,000 feet) water supply wells. Developed a conceptual site model for the groundwater subbasin that includes a complex multi-layered bedrock aquifer overlain by an alluvial aquifer. The conceptual hydrostratigraphy developed for the project has been the basis of numerous groundwater flow and transport models used to evaluate remedial alternatives for impacted groundwater. Responsible for interfacing with multi-party group of stakeholders including regulators (DTSC and CDDW), responsible parties, and water agencies. Activities included basinwide hydrogeologic correlations using geophysical logs, coordination and analysis of water level response to start-up of 2,200 gallon per minute groundwater remedy, conducting two large-scale multi-day pumping tests, oversight of deep (up to 1,500 feet) flooded reverse and direct mud rotary drilling and Westbay multiport, nested, an conventional monitoring well installations, oversight and analysis of spinner testing and depth-specific sampling of deep production wells screened in a multi-layer aquifer system, technical oversight of groundwater model development and simulations, coordination of monitoring well sampling. Participated in initial RI activities between 2002 and 2004 as Staff Hydrogeologist and progressed to become the Project Manager and technical lead in 2009.

Well 204 Exploratory Drilling and Preliminary Design, Eastern Municipal Water District, Perris, CA: Senior Hydrogeologist for projects that included exploratory drilling and testing oversight, preliminary water supply well design, and preparation of well specifications. Responsible for managing a team of hydrogeologists and geologists providing contractor oversight and inspection services during drilling of exploratory borehole to evaluate the suitability of a site for future construction of a groundwater production well, and preparation of a drilling and testing summary report. Responsible for managing preparation of the preliminary well design and specifications for proposed water supply Well 204. The scope of work involved preliminary design of the well, presenting the preliminary design to internal stakeholders in a preliminary design workshop, preparing a preliminary design technical memorandum, and preparing specifications for inclusion in the public bid packages.

Cadiz Groundwater Basin Characterization, Cadiz, Inc., Cadiz, CA: Hydrogeologist for project to assess the local aquifer system for future aquifer storage and recovery (ASR) project, including evaluating the water budget for the 1,000 square mile basin. Responsible for implementing exploratory drilling, test well, and monitoring well installation and testing activities. Drilling activities included flooded reverse rotary, dual-tube air rotary, and continuous rock coring to depths up to 1,950 feet. Production wells were installed and tested in both alluvial and bedrock (carbonate) aquifers. Hydraulic testing included step-rate and constant-rate aquifer (pumping) tests in production wells and packer testing and step rate injection testing within an uncased core holes. Performed analysis of aquifer test results. Evaluated the proposed project effect on natural springs positioned (laterally) upgradient of the proposed ASR wellfield.

WEST YOST ASSOCIATES

Anna Reimer, GIT

Anna certified geologist-in-training who has worked on most of West Yost's groundwater resources projects over the past decade. Her experience includes: hydrogeologic mapping; aquifer analysis; water quality monitoring and sampling; groundwater management planning; integrated groundwater modeling; production well construction, testing, and monitoring; and evaluating existing supply facilities. She is currently pursuing an M.S. in hydrologic sciences at UC Davis. Her thesis project involves updating the Yolo County Integrated Water Flow Model (IWFM) and inspecting impacts to the shallow, intermediate, and deep aquifers due to changes in agriculture irrigation and municipal pumping practices, and the completion of the regional treated surface water supply project.

In addition to her hydrogeological work, Anna is co-lead of West Yost's GIS User Group and is responsible for writing training documentation, standardizing layouts and workflows, and researching advancements in the industry.

RELEVANT EXPERIENCE

Sacramento Valley Groundwater Assessment Report, Northern California Water Association / Macaulay Water Resources, CA: Tasks included researching historical data for the region and generating maps. The report provides an overview of the Sacramento Valley's groundwater resources and the efforts to better understand and actively manage the resources to provide sustainable benefits for the Sacramento Valley, and includes sections on the historical development of land and water resources; the ongoing efforts for sustainable groundwater management; the effects of increasing use of groundwater; and recommendations for the future.

Monitoring Network Assessment, Colusa County, CA: In order to support the implementation of a Groundwater Sustainability Plan, existing monitoring networks within the Colusa Subbasin were assessed using criteria outlined by SGMA emergency regulations and Department of Water Resources documentation regarding Best Management Practices (BMPs) for the Sustainable Management of Groundwater. Federal, state, and locally managed networks for the monitoring of groundwater levels, groundwater quality, land subsidence, and surface water were evaluated based on spatial distribution, monitoring frequency, and station-specific requirements. Data gaps were identified within each of the monitoring networks and recommendations were made for additional study or the installation of new monitoring stations. Specific tasks included compiling available information on existing networks and monitoring locations, summarizing requirements listed in the Emergency Regulations and BMPs, evaluating each of the networks for SGMA compliance, identifying data gaps, making recommendations to fill the data gaps, and writing and issuing the Groundwater Monitoring Network Assessment Report.

Staff Title: Geologist II

Years of Experience: 10

Registration

- Professional Geologist-in-Training, California No. 750

Education

- BS, Geology, University of California, Davis

Certification

- OSHA 10 Hour Construction Safety Training, No. 15222971
- 40 Hour HAZWOPER

Professional Affiliations

- Groundwater Resources Association
- Geological Society of America

Hydrogeologic Conceptual Model, Glenn County, CA: In order to support the implementation of a Groundwater Sustainability Plan, a preliminary hydrogeologic conceptual model (HCM) was created within the Colusa Subbasin using criteria outlined by the Sustainable Groundwater Management Act (SGMA) emergency regulations and Department of Water Resources documentation regarding Best Management Practices (BMPs) for the Sustainable Management of Groundwater. Each component of the HCM was evaluated for the Colusa Subbasin. These components include geographic setting, land use, hydrology, topography, soils, geologic framework, hydrogeologic formations, basin boundaries, principal aquifers and aquitards, aquifer characteristics including water quality, extent, parameters, primary uses, and inflows and outflows. Well completion reports and assorted geologic reports were used to generate a 3D visualization of the hydrogeologic formations that underlie the Colusa Subbasin. Data gaps were identified for areas lacking subsurface information and for lacking water quality and aquifer parameter data. Specific tasks included compiling and evaluating available information on the different HCM components, summarizing requirements listed in the Emergency Regulations and BMPs, generating a 3D subsurface conceptual model of the Colusa Subbasin, identifying data gaps regarding physical and chemical characteristics, and writing and issuing the Groundwater Monitoring Network Assessment Report.

Municipal Well Siting Study, Sacramento Suburban Water District, CA: The District is interested in constructing a new municipal supply well. In order to do so, a handful of parcels were identified that meet their desired criteria. Parcel requirements were based on shape, size, accessibility, land use, and proximity to residential buildings, existing water, sewer, and storm facilities, riparian land, the 100-year storm floodplain, active contaminant plumes and other hazardous areas, and riparian lands. Specific tasks included acquiring, compiling, and processing GIS-based data files for all of the criteria to identify ideal parcels within the District's service area. This work is ongoing.

Groundwater Management Plan Preparation, City of Woodland, CA: Assisted in the preparation of the plan for the City of Woodland. Specific tasks included compiling historical data, creating figures and generating tables for the plan, and assisting with the writing of certain sections. The City of Woodland relies entirely on groundwater obtained from 24 wells for its municipal supply. Groundwater is used for domestic drinking water and agricultural supply in the surrounding areas of Yolo County. The Yolo Subbasin, which includes the City, has documented groundwater issues including inelastic land subsidence due to groundwater withdrawal and water quality problems. Among the more significant of these water quality problems are elevated nitrate and boron concentrations and salinity levels.

Yolo County Integrated Groundwater and Surface- Water Model Updates and Refinement, CA: Compiled well location, construction, down hole lithology, and pumping information for the Cities of Woodland and Davis production wells for use in the reconstruction of the Yolo County integrated water flow model (IWFM) and subsequent future modeling assuming both municipalities move forward with the Davis Woodland Water Supply Project (an integration of surface and groundwater supply with an ASR component). ArcHydro was used to map and store all well information. The information along with assorted geologic mapping sources and knowledge of local aquifer properties including water quality, hydrogeology, and flow gradients was then used in conjunction with ArcHydro to define hydrologic subsurface layers that were modeled using IWFM.

Natural Groundwater Recharge Report Update, Antelope Valley, CA: Duties included updating precipitation, evapotranspiration, and streamflow values; re-running the evapotranspiration method with the updated data to calculate natural recharge using the Spatial Analyst and Image Analyst extensions of ArcGIS to calculate vegetation indices from digital satellite images and using Spatial Analyst to determine the overall natural recharge; and re-running the original precipitation-yield method to calculate natural recharge using the original data with ArcGIS Spatial Analyst and other GIS techniques.

Upper Laguna Creek, City of Elk Grove, CA: Prior to this study, floodplain mapping had not been prepared by FEMA for a large portion of Laguna Creek within Elk Grove. Sacramento County desired to have the floodplain mapped to provide information for future development along the creek and to allow the potential benefits of converting an existing mining pit in the upper watershed into a flood control detention basin. West Yost prepared a dynamic hydraulic model using HEC-GeoRAS to calculate the flood flows and water surface elevations in the creek. Anna used the HEC Geo-RAS software in conjunction with ArcGIS to map the 100-year floodplain along 9 miles of the creek. This information was used to support a LOMR application that was quickly approved by FEMA.

Groundwater Management Plan, City of Lompoc, CA: Assisted in the preparation of the City of Lompoc's Groundwater Management Plan. Specific tasks included compilation and assessment of historical data, writing the plan, generating basin management objectives, and generating indicative maps and figures for the plan.

REQUIRED FORMS

From: Compliance News Publishing Company
http://www.compliancenews.com
info@compliancenews.com
Tel: 562-439-2788 Fax: 562-439-1398
216 The Promenade N. ste. 304 Long Beach, CA 90802

TO: Wildermuth Environmental, Inc.
23692 Birtcher Drive
Lake Forest,CA,92630
Phone: (949) 420-3030
Fax: (949) 420-4040

RECEIPT for Ad: 64964

Published on 04/01/2019

For Project:

Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development

Total Amount PAID: $90.00

Compliance News Monthly Trade Journal

Publication Affidavit-Declaration of Publication -- State of California

Wildermuth Environmental, Inc. is seeking certified and qualified DVBE,DBE,MBE,WBE,SBE subs and/or suppliers to provide Assistance with the preparation of Groundwater Sustainability Plan for the Bedford Coldwater Subbasin. Potential scopes of work include: preparation of a Hydrogeologic conceptual model of the subbasin, perpetration of GIS graphics, groundwater modeling support, identification and characterization of groundwater dependent ecosystems, and GSP document management. for Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development in Corona,CA We are an Equal Opportunity Employer.	Contact: Maria Mendoza-Tellez 23692 Birtcher Drive Lake Forest,CA,92630 Phone:(949) 420-3030 Fax:(949) 420-4040 Email:mmendoza@weiwater.com Bid Due on:04/30/2019 at 02:00 PM Solicitation Number: N/A

The Wildermuth Environmental, Inc. Good Faith Effort ad has been published in both the Compliance News Internet and Hard-Copy publications.
Located Online at: http://www.compliancenews.com/classified_monthly

The undersigned declares:
I am over the age of 18 years and a citizen of the United States. I am the principal publisher of the Compliance News Monthly Trade Journal in the City of Long Beach, County of Los Angeles, and the State of California. The notice, a true copy of which is attached was published on Mon Apr 01 18:59:05 +0000 2019
I declare under penalty of perjury that the foregoing is true and correct. Executed at Long Beach, California
Henry Sprague III

Compliance News Daily Focus Journal

Publication Affidavit-Declaration of Publication -- State of California

Wildermuth Environmental, Inc. is seeking certified and qualified DVBE,DBE,MBE,WBE,SBE subs and/or suppliers to provide Assistance with the preparation of Groundwater Sustainability Plan for the Bedford Coldwater Subbasin. Potential scopes of work include: preparation of a Hydrogeologic conceptual model of the subbasin, perpetration of GIS graphics, groundwater modeling support, identification and characterization of groundwater dependent ecosystems, and GSP document management. for Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development in Corona,CA We are an Equal Opportunity Employer.	Contact: Maria Mendoza-Tellez 23692 Birtcher Drive Lake Forest,CA,92630 Phone:(949) 420-3030 Fax:(949) 420-4040 Email:mmendoza@weiwater.com Bid Due on:04/30/2019 at 02:00 PM Solicitation Number: N/A

The Wildermuth Environmental, Inc. Good Faith Effort ad has been published in both the Compliance News Internet and Hard-Copy publications.
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The undersigned declares:
I am over the age of 18 years and a citizen of the United States. I am the principal publisher of the Compliance News Monthly Trade Journal in the City of Long Beach, County of Los Angeles, and the State of California. The notice, a true copy of which is attached was published on Mon Apr 01 18:59:05 +0000 2019
I declare under penalty of perjury that the foregoing is true and correct. Executed at Long Beach, California
Henry Sprague III

Wildermuth Environmental, Inc.
LOG

Good Faith Effort for Bid Solicitation N/A

Project: Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development

Important Instructions

NOTE: If your bid-package includes form STD-840, you MUST write "See attached Log sections A, B, & C" on STD-840 and include STD-840 with your GFE documents.
1.) Read and complete Section A.
2.) We have completed Section B for you.
3.) Complete Section C by making follow-up phone calls to the firms listed below.
->For DVBE firms, call at least 3 firms. ->For DBE, MBE, & WBE firms, call all of them.

SPECIAL DIRECTIONS FOR CALTRANS PROJECTS:

As of June 1, 2010 Caltrans now requires primes that do not meet their UDBE & DBE goal to do the following:
1.
A. Go to the CalTrans project calendar webpage at http://dap1.dot.ca.gov/hq/esc/oe/calendar and log-in using your bid package registration and password.
B. Hit on the project number your bidding.
C. Hit "See Opt-in records".
D. Print this page. You must now contact these Opt-in DBE's as part of your search for participation.

2. Now hit your browser back-button and hit "Primes: Advertise for help" Be sure your listed in the CalTrans "Primes Seeking Assistance".

As of Sept. 2010, Caltrans suggests the following further steps to support Good Faith Effort (GFE).
1. Attend networking opportunity events at mandatory Caltrans pre-bids & district meetings. Include with your GFE, information that you attended the meeting along with the event brochure.
2. As you reach the bid opening date, ask yourself how likely you are to meeting the goal. If its apparent you may not, then do another GFE. This should be done 5 days of bid opening.

SPECIAL DIRECTIONS FOR FEDERALLY FUNDED PROJECTS:

Review your bid documents and search for any references to the Small Business Administration (SBA) and the Minority Business Development Agency (MBDA). If the agencies are mentioned in the bid documents you MUST post your opportunity through their websites. Contact us for more details.

A. Awarding Department Contact Instructions

Many California Good-Faith Efforts may require the bidding contractor to CALL the awarding department or owner and talk with their Good-Faith representative. SEE YOUR CONTRACT DOCUMENTS FOR THIS TELEPHONE NO. Call it and record the result below.

Awarding Department Contact Action

Wildermuth Environmental, Inc. contacted the awarding department issuing this contract at (tel number) _____ at (time) _____ on (date) _____ and discussed Good-Faith Effort with (Awarding Department Contact) _____.
Remarks:(left message, etc.) _____.
Phone call was made by (Prime Rep's do_signature) _____.

B. Federal, State, & Local Agencies Contacted

On 04/01/19, Wildermuth Environmental, Inc. contacted:

1. Federal Agency: System for Award Management (SAM) at https://www.sam.gov/portal/SAM/##11#1 at 06:59PM on 04/01/2019
2. State Agency: Office of Small Business & DVBE Certification (OSDC) http://www.pd.dgs.ca.gov/smbus at 06:59PM on 04/01/2019
3. California Unified Certification Program (CUCP) at http://www.dot.ca.gov/ucp/GetLicenseForm.do at 06:59PM on 04/01/2019
4. Local referral organization: Compliance News (www.compliancenews.com) at 06:59PM on 04/01/2019

See Next Page for Firms

C. Summary of Firms Sent Bid Invitations
28 total firms were sent invitations.

Company Name: A.B. HASHMI, INC.
Address: 13066 DEER CANYON CT.
SAN DIEGO,CA, 92131
Phone: (760) 672-8059, **Fax:** (858) 433-7215
Work Categories:
08; 11; 12; E4940 WATER SUPPLY; E4970 IRRIGATION SYSTEMS; C1601 CLEARING & GRUBBING; C1701 DEVELOP WATER SUPPLY; C2065 IRRIGATION SYSTEM;

Phone Solicitation Information

Date/s-Time/s Solicited by Phone: _____
Person Contacted and Commments for Solicitation: N/A Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development

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Company Name: JARRETT FOUNDATIONS, INC
Address: 4518 WINTERS STREET
MCCLELLAN,CA, 95652
Phone: (916) 371-8760, **Fax:** (916) 371-8765
Work Categories:
01; 02; 03; 04; 05; 06; 07; 08; 09; 10; 11; 12; C4904 DRILLED HOLE; C4906 CAST-IN-DRILLED-HOLE CONCRETE PILING; C4901 FURNISH & DRIVE PILING; C7601 DIRECTIONAL BORING/DRILLING; C0653 STEEL SOLDIER PILES; C7600 DEVELOP, TEST, DRILL, MAINTAIN WELLS; C1701 D

Phone Solicitation Information

Date/s-Time/s Solicited by Phone: _____
Person Contacted and Commments for Solicitation: N/A Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development

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Company Name: BLAIR, CHURCH & FLYNN CONSULTING ENGINEERS
Address: 451 CLOVIS AVENUE, SUITE 200
CLOVIS,CA, 93612
Phone: (559) 326-1400, **Fax:** (559) 326-1500
Work Categories:
03; 04; 05; 06; 07; 08; 09; 10; C8705 DESIGN; C8770 CONSTRUCTION MANAGEMENT; C8710 ENGINEERING; C8760 LAND SURVEYOR; C8773 Construction Management - Highway, Street and Bridge Construction; C8776 Construction Management - Other Heavy and Civil Constructio

Phone Solicitation Information

Date/s-Time/s Solicited by Phone: _____
Person Contacted and Commments for Solicitation: N/A Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development

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Company Name: Cpm Partners, Inc
Address: 535 Encinitas Blvd., Suite 114
Encinitas,CA, 92024
Phone: (760) 230-8009, **Fax:** (760) 230-8010
Work Categories:
BUSINESS ADMINISTRATION; CONSTRUCTION MANAGEMENT; DRAFTING; FEASIBILITY STUDIES; Building Inspection Services; Computer-aided Design & DRAFTING (CADD); Construction Estimating and Costing; Construction Project and Document Control; Construction Scheduling

Phone Solicitation Information

Date/s-Time/s Solicited by Phone: _____
Person Contacted and Commments for Solicitation: N/A Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development

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Company Name: CIVILEARTH
Address: 17390 DRAKE ST
YORBA LINDA,CA, 92886
Phone: (714) 312-6568, **Fax:** (714) 996-6986
Work Categories:
G1003 WHOLESALE TRADE AGENTS AND BROKERS; C8705 DESIGN; F5045 COMPUTERS, PERIPHERALS & SOFTWARE; I8734 LABORATORY TESTING AND ANALYSIS; C8710 ENGINEERING; C8765 DRAFTING; I7370 COMPUTER & DATA PROCESSING SERVICES; C8762 AERIAL/PHOTOGRAMMETRIC MAPPING SERV

Phone Solicitation Information

Date/s-Time/s Solicited by Phone: _____
Person Contacted and Commments for Solicitation: N/A Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development

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Company Name: N B G CONSTRUCTION SERVICES
Address: 14 CUERVO STREET
RANCHO SAN MARGARITA,CA, 92688
Phone: (949) 283-5757, **Fax:** (949) 589-6897
Work Categories:
Construction Management - Other Heavy and Civil Construction; Environmental - Water Quality; SAFETY STUDIES

Phone Solicitation Information

Date/s-Time/s Solicited by Phone: _____
Person Contacted and Commments for Solicitation: N/A Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development

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Company Name: RFE ENGINEERING, INC.
Address: 2260 DOUGLAS BLVD., SUITE 160

ROSEVILLE,CA, 95661
Phone: (916) 772-7800, **Fax:** (916) 772-7804
Work Categories:
01; 02; 03; 04; 05; 06; 07; 08; 09; 10; 11; 12; C9982 CONSTRUCTION STAKING (SURVEYING); C8705 DESIGN; C8765 DRAFTING; C8707 FEASIBILITY STUDIES; C8760 LAND SURVEYOR; C8852 SWPPP Planning; C8733 CONSTRUCTION ENGINEERING & INSPECTION SERVICES; C8715 CONSULT

Phone Solicitation Information

Date/s-Time/s Solicited by Phone: _____
Person Contacted and Commments for Solicitation: N/A Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development

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Company Name: SRK ENGINEERING, INC.
Address: 4010 MORENA BLVD. #105
SAN DIEGO,CA, 92117
Phone: (909) 456-5164, **Fax:** (760) 560-1634
Work Categories:
07; 08; 11; 12; I8734 LABORATORY TESTING AND ANALYSIS; C6200 ALTERNATIVE PIPE CULVERT; C6820 PERMEABLE MATERIAL; C7160 ASBESTOS-CEMENT SEWER PIPE; C5501 STEEL STRUCTURES; C7180 CAST IRON SEWER PIPE; C5180 SOUND WALL (MASONRY BLOCK - CONCRETE); C1980 IMPOR

Phone Solicitation Information

Date/s-Time/s Solicited by Phone: _____
Person Contacted and Commments for Solicitation: N/A Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development

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Company Name: Long's Directional Boring, Inc
Address: 1476 Bodie Place
Norco,CA, 92860
Phone: (951) 817-0111, **Fax:** (951) 817-1247
Work Categories:
03; 05; 06; 07; 08; 09; 11; 12; C1701 DEVELOP WATER SUPPLY; C7041 JACKED WELDED STEEL PIPE;

Phone Solicitation Information

Date/s-Time/s Solicited by Phone: _____
Person Contacted and Commments for Solicitation: N/A Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development

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Company Name: ALFRED CIVIL ENGINEERING, INC
Address: 7604 SOQUEL WAY
CITRUS HEIGHTS,CA, 95610
Phone: (916) 241-5309, **Fax:** (916) 374-7383

Work Categories:
01; 02; 03; 04; 05; 06; 07; 08; 09; 10; 11; 12; C8705 DESIGN; C8710 ENGINEERING; C8765 DRAFTING; C8852 SWPPP Planning; C8767 GIS Modeling; C8715 CONSULTANT, ENGINEERING; C8713 CONSULTANT, ENVIRONMENTAL; C8766 Computer-aided Design & DRAFTING (CADD); C8781

Phone Solicitation Information

Date/s-Time/s Solicited by Phone: _____
Person Contacted and Commments for Solicitation: N/A Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development

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Company Name: DREAMBUILDER CONSTRUCTION CORP
Address: 1324 E LAWSON LN.
Placentia,CA, 92870
Phone: (714) 646-3697, **Fax:** (714) 646-3698
Work Categories:
01; 02; 03; 04; 05; 06; 07; 08; 09; 10; 11; 12; C6200 ALTERNATIVE PIPE CULVERT; D3270 CONCRETE, GYPSUM, & PLASTER PRODUCTS; C1901 ROADWAY EXCAVATION; C3901 ASPHALT CONCRETE; C1531 PLANE ASPHALT CONCRETE; C1601 CLEARING & GRUBBING; C0651 CONCRETE & CEMENT

Phone Solicitation Information

Date/s-Time/s Solicited by Phone: _____
Person Contacted and Commments for Solicitation: N/A Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development

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Company Name: A & M CONSULTING ENGINEERS
Address: 204 E. OAK AVE SUITE 5A
VISALIA,CA, 93291
Phone: (559) 429-4747, **Fax:** (844) 853-5517
Work Categories:
00; C8765 DRAFTING; C8760 LAND SURVEYOR; C8852 SWPPP Planning; C8733 CONSTRUCTION ENGINEERING & INSPECTION SERVICES; C8773 Construction Management - Highway, Street and Bridge Construction; C8800 Construction Estimating and Costing; C8781 Engineering - Hy

Phone Solicitation Information

Date/s-Time/s Solicited by Phone: _____
Person Contacted and Commments for Solicitation: N/A Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development

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Company Name: Adh Technical Services, Inc.
Address: 3065 Porter Street, Suite 101
Soquel,CA, 95073
Phone: (831) 477-2003, **Fax:** (831) 477-0895
Work Categories:

00; C8795 Environmental-Regulatory; C8707 FEASIBILITY STUDIES; C8852 SWPPP Planning; C8713 CONSULTANT, ENVIRONMENTAL; C8794 Environmental - Water Quality; C8722 ENVIRONMENTAL ENGINEER; C8730 SAFETY STUDIES;

Phone Solicitation Information

Date/s-Time/s Solicited by Phone: _____

Person Contacted and Commments for Solicitation: N/A Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development

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Company Name: MORAN CONSULTING CORPORATION
Address: 4500 E. PACIFIC COAST HIGHWAY #210
LONG BEACH,CA, 90804
Phone: (562) 340-4670, **Fax:** (562) 340-4680
Work Categories:
07; 08; 12; C8760 LAND SURVEYOR; C8762 AERIAL/PHOTOGRAMMETRIC MAPPING SERVICES;

Phone Solicitation Information

Date/s-Time/s Solicited by Phone: _____

Person Contacted and Commments for Solicitation: N/A Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development

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Company Name: BONITA PIPELINE, INC
Address: 140 N GLOVER AVE
CHULA VISTA,CA, 91910
Phone: (619) 434-9801, **Fax:** (619) 434-9802
Work Categories:
05; 07; 08; 10; 11; 12; E4940 WATER SUPPLY; C6650 CORRUGATED METAL PIPE (CSP); E4970 IRRIGATION SYSTEMS; C1701 DEVELOP WATER SUPPLY;

Phone Solicitation Information

Date/s-Time/s Solicited by Phone: _____

Person Contacted and Commments for Solicitation: N/A Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development

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Company Name: Wreco
Address: 1243 Alpine Road Suite 108
Walnut Creek,CA, 94596
Phone: (925) 941-0017, **Fax:** (925) 941-0018
Work Categories:
00; C8701 BUSINESS ADMINISTRATION; C8705 DESIGN; C8770 CONSTRUCTION MANAGEMENT; I8990 SERVICES, NEC; C8710 ENGINEERING; C8716 ARCHITECTURAL ENGINEER; C8742 MECHANICAL ENGINEERS; C8765 DRAFTING; C8707 FEASIBILITY STUDIES; I7373 INTEGRATED SYSTEMS & CAD/CAM

Phone Solicitation Information

Date/s-Time/s Solicited by Phone: _____
Person Contacted and Commments for Solicitation: N/A Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development

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Company Name: Watearth, Inc.
Address: 631 PHEASANT DRIVE
Los Angeles,CA, 90065
Phone: (877) 302-2084, **Fax:** (800) 519-3774
Work Categories:
CONSULTANT, ENGINEERING; CIVIL ENGINEERING; Engineering - Hydrology; Environmental - Water Quality;

Phone Solicitation Information

Date/s-Time/s Solicited by Phone: _____
Person Contacted and Commments for Solicitation: N/A Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development

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Company Name: Geomorph Information Systems, Llc
Address: 1538 10th Avenue
San Diego,CA, 92101
Phone: (619) 218-6463, **Fax:** (619) 702-6225
Work Categories:
Integrated Systems & Cad/cam Systems, Consultant, Non Engineering, 541620, Environmental Consulting Services, Environmental - Environmental Impact Assessment, Schools & Educational Services, Nec, Computer & Data Processing Services, Environmental - Biolog

Phone Solicitation Information

Date/s-Time/s Solicited by Phone: _____
Person Contacted and Commments for Solicitation: N/A Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development

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Company Name: LAROC ENVIRONMENTAL
Address: 820 EARTH DRIVE
VISTA,CA, 92083
Phone: (760) 533-1875, **Fax:** (760) 630-1875
Work Categories:
Environmental - Water Quality, Environmental Consulting Services, Consultant, Non Engineering, 541620

Phone Solicitation Information

Date/s-Time/s Solicited by Phone: _____
Person Contacted and Commments for Solicitation: N/A Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development

Company Name: AHTNA DESIGN-BUILD, INC
Address: 3200 EL CAMINO REAL, SUITE 240
IRVINE,CA, 92602
Phone: (714) 824-3470, **Fax:** (714) 824-3474
Work Categories:
C8773 Construction Management - Highway, Street and Bridge Construction; C8775 Construction Management - Oil and Gas Pipeline and Releted Structure Construction; C8776 Construction Management - Other Heavy and Civil Construction; C8777 Construction Manage

Phone Solicitation Information

Date/s-Time/s Solicited by Phone: _____
Person Contacted and Commments for Solicitation: N/A Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development

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Company Name: ANIL VERMA ASSOCIATES, INC
Address: 444 S. FLOWER STREET, SUITE 1688
Los Angeles,CA, 90071
Phone: (213) 624-6908, **Fax:** (213) 624-1188
Work Categories:
FEASIBILITY STUDIES; ENGINEERING; SAFETY STUDIES; Construction Management - Commercial and Institutional Building Construction; Construction Management - Institutional Building Construction; Construction Management - Highway, Street and Bridge Constructio

Phone Solicitation Information

Date/s-Time/s Solicited by Phone: _____
Person Contacted and Commments for Solicitation: N/A Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development

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Company Name: GLOBAL DESIGN BUILD, INC
Address: 4695 MACARTHUR COURT
NEWPORT BEACH,CA, 92660
Phone: (949) 361-6300, **Fax:** (949) 861-6558
Work Categories:
CONSTRUCTION MANAGEMENT; Computer-aided Design & DRAFTING (CADD); Energy Studies; CONSULTANT, NON ENGINEERING;

Phone Solicitation Information

Date/s-Time/s Solicited by Phone: _____
Person Contacted and Commments for Solicitation: N/A Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development

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Company Name: 3D INFUSION, INC
Address: 8110 SW VALLEY DRIVE
PORTLAND,OR, 97229
Phone: (503) 296-6644, **Fax:** (503) 296-6645
Work Categories:
Â DESIGN; DRAFTING; Computer-aided Design & DRAFTING (CADD); CONSULTANT, NON ENGINEERING;

Phone Solicitation Information

Date/s-Time/s Solicited by Phone: _____
Person Contacted and Commments for Solicitation: N/A Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development

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Company Name: Exbon Development, Inc.
Address: 13831 NEWHOPE STREET
GARDEN GROVE,CA, 92843
Phone: (714) 539-2222, **Fax:** (562) 539-2223
Work Categories:
00; E4940 WATER SUPPLY; C8710 ENGINEERING; C1901 ROADWAY EXCAVATION; C1575 REMOVE BRIDGE ITEM; C1940 DITCHES EXCAVATION; C9822 CARPENTRY; C9837 ROOFING; C1920 STRUCTURE EXCAVATION; C9846 ADDITIONS, ALTERATIONS OR REPAIRS; C9801 BUILDING CONSTRUCTION; C170

Phone Solicitation Information

Date/s-Time/s Solicited by Phone: _____
Person Contacted and Commments for Solicitation: N/A Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development

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Company Name: JF ENGINEERING
Address: 1539 E. GRAND AVE
POMONA,CA, 91766
Phone: (909) 721-7698, **Fax:** (818) 301-3224
Work Categories:
05; 06; 07; 08; 11; 12; C8705 DESIGN; C8770 CONSTRUCTION MANAGEMENT; C8778 Construction Management - Water and Sewer Line and Related Structure Construction; C5100 CONCRETE STRUCTURE;

Phone Solicitation Information

Date/s-Time/s Solicited by Phone: _____
Person Contacted and Commments for Solicitation: N/A Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development

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Company Name: Act Consulting Engineers, Inc.
Address: 6 HUTTON CENTRE DRIVE, SUITE 1020
SANTA ANA,CA, 92707

Phone: (714) 662-2288, **Fax:** (714) 662-2282
Work Categories:
FEASIBILITY STUDIES; Engineering - Hydrology; Environmental - Water Quality; CIVIL ENGINEERING; SAFETY STUDIES

Phone Solicitation Information

Date/s-Time/s Solicited by Phone: _____
Person Contacted and Commments for Solicitation: N/A Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development

---

Company Name: V A P Construction Inc
Address: 15705 BIRCHWOOD ST
LA MIRADA,CA, 90638
Phone: (714) 253-3270, **Fax:** (714) 551-9420
Work Categories:
01; 02; 03; 04; 05; 06; 07; 08; 09; 10; 11; 12; C1290 TEMPORARY RAILING (TYPE K); C8770 CONSTRUCTION MANAGEMENT; C6200 ALTERNATIVE PIPE CULVERT; C1901 ROADWAY EXCAVATION; C2030 EROSION CONTROL; C3901 ASPHALT CONCRETE; C1980 IMPORTED BORROW; C2700 CEMENT

Phone Solicitation Information

Date/s-Time/s Solicited by Phone: _____
Person Contacted and Commments for Solicitation: N/A Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development

---

Company Name: MC CULLOUGH CONSTRUCTION INC
Address: 57 ALDER GROVE ROAD
Arcata,CA, 95521
Phone: (707) 825-1014, **Fax:** (707) 825-1769
Work Categories:
01; 02; 03; 04; 05; 06; 07; 08; 09; 10; 11; 12; C9907 CONSTRUCTION EQUIPMENT RENTAL; E4940 WATER SUPPLY; B1440 SAND & GRAVEL; C1901 ROADWAY EXCAVATION; C5501 STEEL STRUCTURES; E4970 IRRIGATION SYSTEMS; C1575 REMOVE BRIDGE ITEM; C9908 HEAVY EQUIPMENT RENT

Phone Solicitation Information

Date/s-Time/s Solicited by Phone: _____
Person Contacted and Commments for Solicitation: N/A Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development

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Affidavit of Fax Solicitation
The undersigned employee of Compliance News Publishing, located in the City of Long Beach, County of Los Angeles, and the State of California, declares that bid solicitation letters have been faxed to the following 28

firms listed below at 06:59PM on 04/01/2019. I am over the age of 18 years and a citizen of the United States. I declare under penalty of perjury that the foregoing is true and correct. Executed at Long Beach, California.
Henry Sprague III

Wildermuth Environmental, Inc.
23692 Birtcher Drive
Lake Forest,CA 92630
Telephone: (949) 420-3030
Fax: (949) 420-4040
http://www.wildermuthenvironmental.com

INVITATION TO BID

April 01, 2019
Attn: A.B. HASHMI, INC.
13066 DEER CANYON CT.
SAN DIEGO,CA,92131

We are seeking certified and qualified **DVBE,DBE,MBE,WBE,SBE** subcontractors and/or suppliers for:

Project: Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development
Location: Corona,CA
Bid Due Date: 04/30/19 at 02:00 PM PST
Solicitation Number: N/A
Contact: Maria Mendoza-Tellez

Quotes are needed for:
Assistance with the preparation of Groundwater Sustainability Plan for the Bedford Coldwater Subbasin. Potential scopes of work include: preparation of a Hydrogeologic conceptual model of the subbasin, perpetration of GIS graphics, groundwater modeling support, identification and characterization of groundwater dependent ecosystems, and GSP document management..

Please indicate if you will be bidding on this project and fax your response to (949) 420-4040.

___ Yes, we will bid ___ No, not interested

We are an Equal Opportunity Employer and intend to seriously negotiate with certified and qualified DVBE,DBE,MBE,WBE,SBE subcontractors and/or suppliers for project participation.

Subcontractors will be required to enter into our standard contract. No modifications to the contract are permitted.

If you have any questions please do not hesitate to contact us.

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Fax: (949) 420-4040
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INVITATION TO BID

April 01, 2019
Attn: JARRETT FOUNDATIONS, INC
4518 WINTERS STREET
MCCLELLAN,CA,95652

We are seeking certified and qualified **DVBE,DBE,MBE,WBE,SBE** subcontractors and/or suppliers for:

Project: Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development
Location: Corona,CA
Bid Due Date: 04/30/19 at 02:00 PM PST
Solicitation Number: N/A
Contact: Maria Mendoza-Tellez

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INVITATION TO BID

April 01, 2019
Attn: BLAIR, CHURCH & FLYNN CONSULTING ENGINEERS
451 CLOVIS AVENUE, SUITE 200
CLOVIS,CA,93612

We are seeking certified and qualified **DVBE,DBE,MBE,WBE,SBE** subcontractors and/or suppliers for:

Project: Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development
Location: Corona,CA
Bid Due Date: 04/30/19 at 02:00 PM PST
Solicitation Number: N/A
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INVITATION TO BID

April 01, 2019
Attn: Cpm Partners, Inc
535 Encinitas Blvd., Suite 114
Encinitas,CA,92024

We are seeking certified and qualified **DVBE,DBE,MBE,WBE,SBE** subcontractors and/or suppliers for:

Project: Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development
Location: Corona,CA
Bid Due Date: 04/30/19 at 02:00 PM PST
Solicitation Number: N/A
Contact: Maria Mendoza-Tellez

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INVITATION TO BID

April 01, 2019
Attn: CIVILEARTH
17390 DRAKE ST
YORBA LINDA,CA,92886

We are seeking certified and qualified **DVBE,DBE,MBE,WBE,SBE** subcontractors and/or suppliers for:

Project: Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development
Location: Corona,CA
Bid Due Date: 04/30/19 at 02:00 PM PST
Solicitation Number: N/A
Contact: Maria Mendoza-Tellez

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INVITATION TO BID

April 01, 2019
Attn: N B G CONSTRUCTION SERVICES
14 CUERVO STREET
RANCHO SAN MARGARITA,CA,92688

We are seeking certified and qualified **DVBE,DBE,MBE,WBE,SBE** subcontractors and/or suppliers for:

Project: Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development
Location: Corona,CA
Bid Due Date: 04/30/19 at 02:00 PM PST
Solicitation Number: N/A
Contact: Maria Mendoza-Tellez

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INVITATION TO BID

April 01, 2019
Attn: RFE ENGINEERING, INC.
2260 DOUGLAS BLVD., SUITE 160
ROSEVILLE,CA,95661

We are seeking certified and qualified **DVBE,DBE,MBE,WBE,SBE** subcontractors and/or suppliers for:

Project: Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development
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Bid Due Date: 04/30/19 at 02:00 PM PST
Solicitation Number: N/A
Contact: Maria Mendoza-Tellez

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Fax: (949) 420-4040
http://www.wildermuthenvironmental.com

INVITATION TO BID

April 01, 2019
Attn: SRK ENGINEERING, INC.
4010 MORENA BLVD. #105
SAN DIEGO,CA,92117

We are seeking certified and qualified **DVBE,DBE,MBE,WBE,SBE** subcontractors and/or suppliers for:

Project: Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development
Location: Corona,CA
Bid Due Date: 04/30/19 at 02:00 PM PST
Solicitation Number: N/A
Contact: Maria Mendoza-Tellez

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INVITATION TO BID

April 01, 2019
Attn: Long's Directional Boring, Inc
1476 Bodie Place
Norco,CA,92860

We are seeking certified and qualified **DVBE,DBE,MBE,WBE,SBE** subcontractors and/or suppliers for:

Project: Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development
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Bid Due Date: 04/30/19 at 02:00 PM PST
Solicitation Number: N/A
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Telephone: (949) 420-3030
Fax: (949) 420-4040
http://www.wildermuthenvironmental.com

INVITATION TO BID

April 01, 2019
Attn: ALFRED CIVIL ENGINEERING, INC
7604 SOQUEL WAY
CITRUS HEIGHTS,CA,95610

We are seeking certified and qualified **DVBE,DBE,MBE,WBE,SBE** subcontractors and/or suppliers for:

Project: Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development
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Solicitation Number: N/A
Contact: Maria Mendoza-Tellez

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Telephone: (949) 420-3030
Fax: (949) 420-4040
http://www.wildermuthenvironmental.com

INVITATION TO BID

April 01, 2019
Attn: DREAMBUILDER CONSTRUCTION CORP
1324 E LAWSON LN.
Placentia,CA,92870

We are seeking certified and qualified **DVBE,DBE,MBE,WBE,SBE** subcontractors and/or suppliers for:

Project: Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development
Location: Corona,CA
Bid Due Date: 04/30/19 at 02:00 PM PST
Solicitation Number: N/A
Contact: Maria Mendoza-Tellez

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Lake Forest,CA 92630
Telephone: (949) 420-3030
Fax: (949) 420-4040
http://www.wildermuthenvironmental.com

INVITATION TO BID

April 01, 2019
Attn: A & M CONSULTING ENGINEERS
204 E. OAK AVE SUITE 5A
VISALIA,CA,93291

We are seeking certified and qualified **DVBE,DBE,MBE,WBE,SBE** subcontractors and/or suppliers for:

Project: Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development
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INVITATION TO BID

April 01, 2019
Attn: Adh Technical Services, Inc.
3065 Porter Street, Suite 101
Soquel,CA,95073

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Project: Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development
Location: Corona,CA
Bid Due Date: 04/30/19 at 02:00 PM PST
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INVITATION TO BID

April 01, 2019
Attn: MORAN CONSULTING CORPORATION
4500 E. PACIFIC COAST HIGHWAY #210
LONG BEACH,CA,90804

We are seeking certified and qualified **DVBE,DBE,MBE,WBE,SBE** subcontractors and/or suppliers for:

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Bid Due Date: 04/30/19 at 02:00 PM PST
Solicitation Number: N/A
Contact: Maria Mendoza-Tellez

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INVITATION TO BID

April 01, 2019
Attn: BONITA PIPELINE, INC
140 N GLOVER AVE
CHULA VISTA,CA,91910

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Solicitation Number: N/A
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http://www.wildermuthenvironmental.com

INVITATION TO BID

April 01, 2019
Attn: Wreco
1243 Alpine Road Suite 108
Walnut Creek,CA,94596

We are seeking certified and qualified **DVBE,DBE,MBE,WBE,SBE** subcontractors and/or suppliers for:

Project: Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development
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Bid Due Date: 04/30/19 at 02:00 PM PST
Solicitation Number: N/A
Contact: Maria Mendoza-Tellez

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http://www.wildermuthenvironmental.com

INVITATION TO BID

April 01, 2019
Attn: Watearth, Inc.
631 PHEASANT DRIVE
Los Angeles,CA,90065

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Project: Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development
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INVITATION TO BID

April 01, 2019
Attn: Geomorph Information Systems, Llc
1538 10th Avenue
San Diego,CA,92101

We are seeking certified and qualified **DVBE,DBE,MBE,WBE,SBE** subcontractors and/or suppliers for:

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Please indicate if you will be bidding on this project and fax your response to (949) 420-4040.

___ Yes, we will bid ___ No, not interested

We are an Equal Opportunity Employer and intend to seriously negotiate with certified and qualified DVBE,DBE,MBE,WBE,SBE subcontractors and/or suppliers for project participation.

Subcontractors will be required to enter into our standard contract. No modifications to the contract are permitted.

If you have any questions please do not hesitate to contact us.

Wildermuth Environmental, Inc.
23692 Birtcher Drive
Lake Forest,CA 92630
Telephone: (949) 420-3030
Fax: (949) 420-4040
http://www.wildermuthenvironmental.com

INVITATION TO BID

April 01, 2019
Attn: LAROC ENVIRONMENTAL
820 EARTH DRIVE
VISTA,CA,92083

We are seeking certified and qualified **DVBE,DBE,MBE,WBE,SBE** subcontractors and/or suppliers for:

Project: Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development
Location: Corona,CA
Bid Due Date: 04/30/19 at 02:00 PM PST
Solicitation Number: N/A
Contact: Maria Mendoza-Tellez

Quotes are needed for:
Assistance with the preparation of Groundwater Sustainability Plan for the Bedford Coldwater Subbasin. Potential scopes of work include: preparation of a Hydrogeologic conceptual model of the subbasin, perpetration of GIS graphics, groundwater modeling support, identification and characterization of groundwater dependent ecosystems, and GSP document management..

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INVITATION TO BID

April 01, 2019
Attn: AHTNA DESIGN-BUILD, INC
3200 EL CAMINO REAL, SUITE 240
IRVINE,CA,92602

We are seeking certified and qualified **DVBE,DBE,MBE,WBE,SBE** subcontractors and/or suppliers for:

Project: Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development
Location: Corona,CA
Bid Due Date: 04/30/19 at 02:00 PM PST
Solicitation Number: N/A
Contact: Maria Mendoza-Tellez

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INVITATION TO BID

April 01, 2019
Attn: ANIL VERMA ASSOCIATES, INC
444 S. FLOWER STREET, SUITE 1688
Los Angeles,CA,90071

We are seeking certified and qualified **DVBE,DBE,MBE,WBE,SBE** subcontractors and/or suppliers for:

Project: Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development
Location: Corona,CA
Bid Due Date: 04/30/19 at 02:00 PM PST
Solicitation Number: N/A
Contact: Maria Mendoza-Tellez

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INVITATION TO BID

April 01, 2019
Attn: GLOBAL DESIGN BUILD, INC
4695 MACARTHUR COURT
NEWPORT BEACH,CA,92660

We are seeking certified and qualified **DVBE,DBE,MBE,WBE,SBE** subcontractors and/or suppliers for:

Project: Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development
Location: Corona,CA
Bid Due Date: 04/30/19 at 02:00 PM PST
Solicitation Number: N/A
Contact: Maria Mendoza-Tellez

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INVITATION TO BID

April 01, 2019
Attn: 3D INFUSION, INC
8110 SW VALLEY DRIVE
PORTLAND,OR,97229

We are seeking certified and qualified **DVBE,DBE,MBE,WBE,SBE** subcontractors and/or suppliers for:

Project: Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development
Location: Corona,CA
Bid Due Date: 04/30/19 at 02:00 PM PST
Solicitation Number: N/A
Contact: Maria Mendoza-Tellez

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Fax: (949) 420-4040
http://www.wildermuthenvironmental.com

INVITATION TO BID

April 01, 2019
Attn: Exbon Development, Inc.
13831 NEWHOPE STREET
GARDEN GROVE,CA,92843

We are seeking certified and qualified **DVBE,DBE,MBE,WBE,SBE** subcontractors and/or suppliers for:

Project: Bedford Coldwater Groundwater Sustainability Authority - Bedford Coldwater Subbasin Groundwater Sustainability Plan Development
Location: Corona,CA
Bid Due Date: 04/30/19 at 02:00 PM PST
Solicitation Number: N/A
Contact: Maria Mendoza-Tellez

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INVITATION TO BID

April 01, 2019
Attn: JF ENGINEERING
1539 E. GRAND AVE
POMONA,CA,91766

We are seeking certified and qualified **DVBE,DBE,MBE,WBE,SBE** subcontractors and/or suppliers for:

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Contact: Maria Mendoza-Tellez

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Fax: (949) 420-4040
http://www.wildermuthenvironmental.com

INVITATION TO BID

April 01, 2019
Attn: Act Consulting Engineers, Inc.
6 HUTTON CENTRE DRIVE, SUITE 1020
SANTA ANA,CA,92707

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Location: Corona,CA
Bid Due Date: 04/30/19 at 02:00 PM PST
Solicitation Number: N/A
Contact: Maria Mendoza-Tellez

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Fax: (949) 420-4040
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INVITATION TO BID

April 01, 2019
Attn: V A P Construction Inc
15705 BIRCHWOOD ST
LA MIRADA,CA,90638

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Fax: (949) 420-4040
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INVITATION TO BID

April 01, 2019
Attn: MC CULLOUGH CONSTRUCTION INC
57 ALDER GROVE ROAD
Arcata,CA,95521

We are seeking certified and qualified **DVBE,DBE,MBE,WBE,SBE** subcontractors and/or suppliers for:

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Solicitation Number: N/A
Contact: Maria Mendoza-Tellez

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If you have any questions please do not hesitate to contact us.

Solicitation Detail | All Solicitations from this Business | Business Information

Business Name: WILDERMUTH ENVIRONMENTAL, INC.

Type of Businesses Being Solicited
Women-Owned Small Business,Disadvantaged Business Enterprise (DBE),Small Business (SB),Small Disadvantaged Business (SDB),Veteran-Owned Small Business (VOSB),Service-Disabled Veteran-Owned Small Business (SDVOSB)

NAICS Code
541330 Engineering Services

Additional NAICS Code
N/A

Solicitation (SOL) / NSS Brief Description:
Seeking firms to assist with the preparation of a Groundwater Sustainability Plan for the Bedford Coldwater Subbasin. Potential scopes of work include: preparation of a hydrogeologic conceptual model, GIS graphics, groundwater modeling support, identification and characterization of groundwater dependent ecosystems, and GSP document management.

Files Attached:
There are no files attached to this solicitation.

Solicitation (SOL) / NSS POC
First Name: Maria
Last Name: MendozaTellez
Phone:
Fax:
Email: mmendoza@weiwater.com

Place of Performance
CA:Riverside

Performance Start Date
06/16/2019

Solicitation (SOL) / NSS Closing Date
04/30/2019 2:00 AM
Time Zone: PDT

Solicitation (SOL) / NSS No. NSS-Bedford Coldwater GSP

Is this solicitation inappropriate? (Click here if this posting contains inappropriate or potentially offensive content. If checked, the solicitation will be reviewed and removed if necessary) ☐

Back

PUBLIC WORKS CONTRACTOR REGISTRATION CERTIFICATION

Pursuant to Labor Code sections 1725.5 and 1771.1, all contractors and subcontractors that wish to bid on, be listed in a bid proposal, or enter into a contract to perform public work must be registered with the Department of Industrial Relations. See http://www.dir.ca.gov/Public-Works/PublicWorks.html for additional information. No bid or proposal will be accepted nor any contract entered into without proof of the contractor's and subcontractors' current registration with the Department of Industrial Relations to perform public work.

Respondent hereby certifies that it is aware of the registration requirements set forth in Labor Code sections 1725.5 and 1771.1 and is currently registered as a contractor with the Department of Industrial Relations.

Name of Bidder: WEI

DIR Registration Number: N/A - Project is not a Public Works project

Bidder further acknowledges:

1. Bidder shall maintain a current DIR registration for the duration of the project or contract.

2. Bidder shall include the requirements of Labor Code sections 1725.5 and 1771.1 in any contract with subcontractors and ensure that all subcontractors are registered at the time of the proposal submittal and maintain registration status for the duration of the project.

3. Failure to submit this form or comply with any of the above requirements may result in a finding that the bid is non-responsive.

Signature: [signature]

Name and Title: Andrew Malone, VP

Dated: April 30, 2019

ACKNOWLEDGMENT OF INSURANCE REQUIREMENTS AND CERTIFICATION OF ABILITY TO PROVIDE COVERAGES SPECIFIED

I, Andrew Malone, the Vice President
(President, Secretary, Manager, Owner or Representative)

of WEI
(Name of Company or Corporation or Owner), certify that I have read and understand the Insurance Requirements set forth in the Professional Services Agreement for the Bedford Coldwater Groundwater Sustainability Authority and that our insurance company(ies)

Admiral Insurance, Ohio Security Insurance, and Everest National Insurance
[fill in name(s) of insurance company(ies)]

is/are able to provide the coverages specified.

Signature of President, Secretary, Manager, Owner or Representative

April 30, 2019
Date

CONFLICT OF INTEREST DISCLAIMER

The undersigned, ANDREW E. MALONE *(Print or Type Name)*, declares that WILDERMUTH ENVIRONMENTAL, INC. *(Name of Firm)* [has/ does not have] interest, ownership, or receives/ anticipates receiving remuneration of any type from the manufacturer(s), supplier(s) or distributor(s) which may be recommended on the project, as listed below.

Firm	Product	Remuneration
NONE		

Signature of Representative

VICE PRESIDENT

Title

APRIL 30, 2019

Date

CALIFORNIA Water Boards

Disadvantaged Business Enterprise (DBE) Program

DBE Subcontractor Utilization Form

This form is intended to capture the prime contractor's actual and/or anticipated use of identified certified DBE[1] subcontractor's[2] and the estimated dollar amount of each subcontract. A Financial Assistance Agreement Recipient must require its prime contractors to complete this form and include it in the bid or proposal package. Prime contractors should also maintain a copy of this form on file.

Prime Contractor Name		Project Name
WILDERMUTH ENVIRONMENTAL		BEDFORD-COLDWATER GSP DEVELOPMENT
Bid / Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact
	4600012647	SAMANTHA ADAMS
Address	23692 BIRTCHER DRIVE LAKE FOREST CA 92630	
Telephone No.	949-420-3030	Email Address: sadams@weiwater.com
Issuing/Funding Entity	ELSINORE VALLEY MUNICIPAL WATER DISTRICT / PROP 1 GRANT	

I have identified potential DBE certified subcontractors. YES (NO)

If *yes*, please complete the table below. If *no*, please explain:

NO RESPONSES FROM DBE WITH SUITABLE QUALIFICATIONS

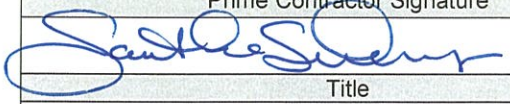
Subcontractor Name/ Company Name	Company Address / Phone / Email	Estimated Dollar Amount	Currently DBE Certified?

--Continue on back if needed--

[1] A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.2015 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

[2] Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an award of financial assistance.

I certify under penalty of perjury that the forgoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302 (c).

Prime Contractor Signature	Print Name
	SAMANTH ADAMS
Title	Date
VICE PRESIDENT	APRIL 30, 2019

The public reporting and record keeping burden for this collection of information is estimated to average three (3) hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Do not send the completed form to this address.

FORM 4500-4 (DBE Subcontractor Utilization Form)

Date: May 16, 2019

To: Board of Directors

From: Administrator

ITEM 5: ADMINISTRATOR'S UPDATE

The following are Completed Tasks for Reporting Period 02/22/18 through 05/16/19

Tasks	Date Completed	Notes
1. Periodic teleconferences with staff	Ongoing	
2. Updated BCGSA website to include "Partially funded by the California Department of Water Resources" and DWR's logo	02/28/2018	Requested by DWR staff at grant kickoff meeting
3. Finalized RFP for GSP Development and posted to PlanetBids	03/19/2019	Deadline for proposal submission was 04/30/2019
4. Conducted Well Canvass of five Corona wells, six EVMWD wells, seven TVWD wells, and seven potential new well sites	04/17/2019	Well Canvass TM in progress
5. Finalized Proposed Budget for FY 2020	05/07/2019	
6. Staff evaluated two proposals received for GSP Development	05/9/2019	
7. Prepared Q1 Invoice Packet and Progress Report for submittal to DWR	05/15/2019	

The following are Pending Tasks for Reporting Period 05/17/19 through 08/15/19

Tasks	Anticipated Completion Date	Notes
1. Grant administration and progress reports	Ongoing	Q2 Invoice Packet and Progress Report is due 8/14/2019
2. Finalize Well Canvass TM	5/20/2019	
3. Finalize Data Management TM	06/01/2019	Grant deliverable
4. Begin GSP Development with selected consultant	06/16/2019	
5. Complete drafting of Administrative sections of the GSP	08/15/2019	

Special Issues or Decisions Requiring Board Input
Approval of selected consultant for GSP Development