



Council Agenda Report

From: Dick McKinley, Public Works Director

Subject: Authorizing Agreement with Todd Groundwater for Preliminary Work for the Groundwater Sustainability Plan Preparation

Date: April 4, 2017

Facts

1. In 2014 the California Legislature and the Governor enacted the Sustainable Groundwater Management Act (SGMA) for best management of groundwater resources in California through the formation of Groundwater Sustainability Agencies (GSAs) and through preparation and implementation of Groundwater Sustainability Plans (GSPs).
2. It is expected that the City's GSA will work closely with the other GSAs in the Paso Robles Sub-basin to write one GSP by January 2020, so that the groundwater in the Sub-basin can be properly managed and be fully sustainable by January of 2040. The GSP will consist of about 80% scientific data, models and tables that will be the same for all parties in the SLO county portion of the Paso Robles basin. The remainder of the GSP will be an appendix for each of the entities that demonstrates how that particular GSA will reach the sustainability goal by 2040, and how each of the GSA plans will be coordinated as required by SGMA. If the DWR staff had a problem with the strategy of one of the partners, the City GSA would still be able to move forward with our part of the GSP because we would have all of the science and our particular sustainability plan.
3. On January 17, 2017, the City Council held a public hearing and adopted a resolution to create a GSA. That GSA is recognized by the State Department of Water Resources (DWR) on its website and will be effective on May 14, 2017 after the completion of the 90-day comment period.
4. The various GSAs in the Paso Robles Sub-basin will work together through a Memorandum of Agreement to jointly prepare a GSP. Since some study and modeling of the Paso Robles basin has been completed, it is imperative that the City not pay for work that has already been done and to determine how much of the work already performed can be used in preparing the GSP.

Options

1. Do nothing.
2. To avoid duplication of effort, have Todd Groundwater 1) evaluate exactly what is and is not required by DWR staff for the GSP; 2) review all previously completed studies and models and determine the extent that they can be used to meet some of DWR's requirements, including any necessary updates; and, 3) identify the additional work necessary to prepare a GSP (the scope of work).
3. Prepare a generic scope of work for the GSP that may have the City and other partners paying for duplicated efforts.

Analysis and Conclusions

Option 1 would leave the City vulnerable for paying too much for writing a GSP.

Option 2 would allow the City to make sure its GSP meets DWR requirements, without paying for a GSP that goes beyond the standard. The Todd Groundwater work would ensure that the City meets the requirements, but not go unnecessarily further, and that the City receives the maximum value for work already completed through San Luis Obispo County. The proposed services by Todd Groundwater

would help ensure compliance with SGMA in a cost-effective manner by avoiding duplication of work and payment. Todd Groundwater was selected for this work because they have extensive knowledge of the Paso Robles Basin, extensive knowledge of the City of Paso Robles' water system (having most recently written the Urban Water Management Plan), and their close work representing City interests with DWR staff.

Option 3 would leave the City in the position of likely paying too much for the GSP preparation.

Fiscal Impact

As a GSA, the City may be able to apply for future groundwater program grants. By entering into this agreement with Todd Groundwater, the City will be able to reduce our overall GSP costs, and be better able to share the costs of preparing a GSP with other partners. Funding for this work would come from the Water Fund Professional Services for which there are adequate budgeted funds. It is expected that the costs for this pre-GSP work would be able to be included in the overall GSP cost accounting, and therefore the other partners would share in the cost.

Recommendation

1. Authorize the City Manager to execute the agreement with Todd Groundwater in an amount not to exceed \$44,540.
2. Authorize the City Manager and City Attorney to make minor changes to the agreement fully consistent with overall Council direction.

Attachments

1. Resolution Approving the Professional Services Agreement with Todd Groundwater
2. Agreement with Todd Groundwater (Exhibit A: Todd Groundwater Proposal)

RESOLUTION NO. 17-XXX

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF EL PASO DE ROBLES
APPROVING AND AUTHORIZING THE CITY TO ENTER INTO A PROFESSIONAL
SERVICES AGREEMENT WITH TODD GROUNDWATER FOR TECHNICAL SUPPORT FOR
SUSTAINABLE GROUNDWATER MANAGEMENT ACT COMPLIANCE

WHEREAS, in 2014 the California Legislature and the Governor enacted the Sustainable Groundwater Management Act (SGMA) for best management of groundwater resources in California through the formation of Groundwater Sustainability Agencies (GSAs) and through preparation and implementation of Groundwater Sustainability Plans (GSPs); and

WHEREAS, the City overlies a portion of the Paso Robles Sub-basin of the Salinas Groundwater Basin, which is subject to the SGMA, and thus one or more GSAs must be formed for the Sub-basin by June 30, 2017, or the Sub-basin may be subject to regulation by the State Water Resources Control Board; and

WHEREAS, it is expected that the City's GSA will work closely with the other GSAs in the Paso Robles Sub-basin to write one or more GSPs by January 2020, so that the groundwater in the Sub-basin can be properly managed and be fully sustainable by January of 2040; and

WHEREAS, on January 17, 2017, the City Council held a public hearing and adopted a resolution to create a GSA, and that GSA is recognized by the State Department of Water Resources (DWR) and will be effective on May 14, 2017 after the completion of the 90-day comment period; and

WHEREAS, the various GSAs in the Paso Robles Sub-basin will work together through a Memorandum of Agreement to jointly prepare a GSP; and

WHEREAS, since some study and modeling of the Paso Robles Sub-basin has been completed, it is imperative that the City not pay for work that has already been done and to determine how much of the work already performed can be used in preparing the GSP; and

WHEREAS, to avoid duplication of effort, the City desires to have Todd Groundwater 1) evaluate exactly what is and is not required by DWR staff for the GSP; 2) review all previously completed studies and models and determine the extent that they can be used to meet some of DWR's requirements, including any necessary updates; and 3) identify the additional work necessary to prepare a GSP (the scope of work).

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF EL PASO DE ROBLES DOES HEREBY RESOLVE AS FOLLOWS:

Section 1. All of the above recitals are true and correct and incorporated herein by reference.

Section 2. The City Council hereby approves and authorizes the execution of a Professional Services Agreement between the City and Todd Groundwater, a copy of which is attached hereto as Exhibit A and incorporated herein by reference.

Section 3. The City Manager is authorized and directed to execute the Professional Services Agreement with Todd Groundwater, in substantially the form attached hereto as Exhibit A, subject to any minor, conforming or clarifying changes as may be approved by the City Attorney. The City Manager, or designee, is further authorized and directed to take such actions as are necessary to carry out the obligations of the City under the Professional Services Agreement.

APPROVED this 4th day of April, 2017, by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

Steven W. Martin, Mayor

ATTEST:

Kristen L. Buxkemper, Deputy City Clerk

**CITY OF EL PASO DE ROBLES
PROFESSIONAL SERVICES AGREEMENT**

This Agreement is made and entered into as of 4th day of April, 2017 by and between the City of El Paso de Robles, a municipal corporation organized and operating under the laws of the State of California with its principal place of business at 1000 Spring Street, Paso Robles, CA 93446 ("City"), and Todd Groundwater, a Corporation with its principal place of business at 2490 Mariner Square Loop, Suite 215, Alameda, CA 94501 (hereinafter referred to as "Consultant"). City and Consultant are sometimes individually referred to as "Party" and collectively as "Parties" in this Agreement.

RECITALS

A. City is a public agency of the State of California and is in need of professional services for the following project:

Technical Support for Sustainable Groundwater Management Act ("SGMA") Compliance (hereinafter referred to as "the Project").

B. Consultant is duly licensed and has the necessary qualifications to provide such services.

C. The Parties desire by this Agreement to establish the terms for City to retain Consultant to provide the services described herein.

AGREEMENT

NOW, THEREFORE, IT IS AGREED AS FOLLOWS:

1. Services.

Consultant shall provide the City with the services described in the Scope of Services attached hereto as Exhibit "A" and incorporated herein by reference.

2. Compensation.

a. Subject to paragraph 2(b) below, the City shall pay for such services in accordance with the Schedule of Charges set forth in Exhibit "A."

b. In no event shall the total amount paid for services rendered by Consultant under this Agreement exceed the sum of \$44,540. This amount is to cover all printing and related costs, and the City will not pay any additional fees for printing expenses. Periodic payments shall be made within 30 days of receipt of an invoice which includes a detailed description of the work performed. Payments to Consultant for work performed will be made on a monthly billing basis.

3. Additional Work.

If changes in the work seem merited by Consultant or the City, and informal consultations with the other party indicate that a change is warranted, it shall be processed in the following manner: a letter outlining the changes shall be forwarded to the City by Consultant with a statement of estimated changes in fee or time schedule. An amendment to this Agreement shall be prepared by the City and executed by both Parties before performance of such services, or

the City will not be required to pay for the changes in the scope of work. Such amendment shall not render ineffective or invalidate unaffected portions of this Agreement.

4. Maintenance of Records.

Books, documents, papers, accounting records, and other evidence pertaining to costs incurred shall be maintained by Consultant and made available at all reasonable times during the contract period and for four (4) years from the date of final payment under the contract for inspection by City.

5. Time of Performance.

Consultant shall perform its services in a prompt and timely manner and shall commence performance upon receipt of written notice from the City to proceed ("Notice to Proceed"). Consultant shall complete the services required hereunder within about three months. The Notice to Proceed shall set forth the date of commencement of work.

6. Delays in Performance.

a. Neither City nor Consultant shall be considered in default of this Agreement for delays in performance caused by circumstances beyond the reasonable control of the non-performing party. For purposes of this Agreement, such circumstances include but are not limited to, abnormal weather conditions; floods; earthquakes; fire; epidemics; war; riots and other civil disturbances; strikes, lockouts, work slowdowns, and other labor disturbances; sabotage or judicial restraint.

b. Should such circumstances occur, the non-performing party shall, within a reasonable time of being prevented from performing, give written notice to the other party describing the circumstances preventing continued performance and the efforts being made to resume performance of this Agreement.

7. Compliance with Law.

a. Consultant shall comply with all applicable laws, ordinances, codes and regulations of the federal, state and local government, including Cal/OSHA requirements.

b. If required, Consultant shall assist the City, as requested, in obtaining and maintaining all permits required of Consultant by federal, state and local regulatory agencies.

c. If applicable, Consultant is responsible for all costs of clean up and/ or removal of hazardous and toxic substances spilled as a result of his or her services or operations performed under this Agreement.

8. Standard of Care

Consultant's services will be performed in accordance with generally accepted professional practices and principles and in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions.

9. Assignment and Sub-consultant

Consultant shall not assign, sublet, or transfer this Agreement or any rights under or interest in this Agreement without the written consent of the City, which may be withheld for any reason. Any attempt to so assign or so transfer without such consent shall be void and without legal effect and shall constitute grounds for termination. Subcontracts, if any, shall contain a provision making them subject to all provisions stipulated in this Agreement. Nothing contained herein shall prevent Consultant from employing independent associates, and sub-consultants as Consultant may deem appropriate to assist in the performance of services hereunder.

10. Independent Consultant

Consultant is retained as an independent contractor and is not an employee of City. No employee or agent of Consultant shall become an employee of City. The work to be performed shall be in accordance with the work described in this Agreement, subject to such directions and amendments from City as herein provided.

11. Insurance. Consultant shall not commence work for the City until it has provided evidence satisfactory to the City it has secured all insurance required under this section. In addition, Consultant shall not allow any subcontractor to commence work on any subcontract until it has secured all insurance required under this section.

a. Commercial General Liability

(i) The Consultant shall take out and maintain, during the performance of all work under this Agreement, in amounts not less than specified herein, Commercial General Liability Insurance, in a form and with insurance companies acceptable to the City.

(ii) Coverage for Commercial General Liability insurance shall be at least as broad as the following:

(1) Insurance Services Office Commercial General Liability coverage (Occurrence Form CG 00 01) or exact equivalent.

(iii) Commercial General Liability Insurance must include coverage for the following:

- (1) Bodily Injury and Property Damage
- (2) Personal Injury/Advertising Injury
- (3) Premises/Operations Liability
- (4) Products/Completed Operations Liability
- (5) Aggregate Limits that Apply per Project
- (6) Explosion, Collapse and Underground (UCX) exclusion deleted
- (7) Contractual Liability with respect to this Contract
- (8) Broad Form Property Damage
- (9) Independent Consultants Coverage

(iv) The policy shall contain no endorsements or provisions limiting coverage for (1) contractual liability; (2) cross liability exclusion for claims or suits by one insured against another; (3) products/completed operations liability; or (4) contain any other exclusion contrary to the Agreement.

(v) The policy shall give City, its officials, officers, employees, agents and City designated volunteers additional insured status using ISO endorsement forms CG 20 10 10 01 and 20 37 10 01, or endorsements providing the exact same coverage.

(vi) The general liability program may utilize either deductibles or provide coverage excess of a self-insured retention, subject to written approval by the City, and provided that such deductibles shall not apply to the City as an additional insured.

b. Automobile Liability

(i) At all times during the performance of the work under this Agreement, the Consultant shall maintain Automobile Liability Insurance for bodily injury and property damage including coverage for owned, non-owned and hired vehicles, in a form and with insurance companies acceptable to the City.

(ii) Coverage for automobile liability insurance shall be at least as broad as Insurance Services Office Form Number CA 00 01 covering automobile liability (Coverage Symbol 1, any auto).

(iii) The policy shall give City, its officials, officers, employees, agents and City designated volunteers additional insured status.

(iv) Subject to written approval by the City, the automobile liability program may utilize deductibles, provided that such deductibles shall not apply to the City as an additional insured, but not a self-insured retention.

c. Workers' Compensation/Employer's Liability

(i) Consultant certifies that he/she is aware of the provisions of Section 3700 of the California Labor Code which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and he/she will comply with such provisions before commencing work under this Agreement.

(ii) To the extent Consultant has employees at any time during the term of this Agreement, at all times during the performance of the work under this Agreement, the Consultant shall maintain full compensation insurance for all persons employed directly by him/her to carry out the work contemplated under this Agreement, all in accordance with the "Workers' Compensation and Insurance Act," Division IV of the Labor Code of the State of California and any acts amendatory thereof, and Employer's Liability Coverage in amounts indicated herein. Consultant shall require all sub-consultants to obtain and maintain, for the period required by this Agreement, workers' compensation coverage of the same type and limits as specified in this section.

d. Professional Liability (Errors and Omissions)

At all times during the performance of the work under this Agreement the Consultant shall maintain professional liability or Errors and Omissions insurance appropriate to its profession, in a form and with insurance companies acceptable to the City and in an amount indicated herein. This insurance shall be endorsed to include contractual liability applicable to this Agreement and shall be written on a policy form coverage specifically designed to protect against acts, errors or omissions of the Consultant. "Covered Professional Services" as designated in the policy must

specifically include work performed under this Agreement. The policy must “pay on behalf of” the insured and must include a provision establishing the insurer's duty to defend.

e. Minimum Policy Limits Required

(i) The following insurance limits are required for the Agreement:

Combined Single Limit

Commercial General Liability	\$1,000,000 per occurrence/ \$2,000,000 aggregate for bodily injury, personal injury, and property damage
Automobile Liability	\$1,000,000 per occurrence for bodily injury and property damage
Employer's Liability	\$1,000,000 per occurrence
Professional Liability	\$1,000,000 per claim and aggregate (errors and omissions)

(ii) Defense costs shall be payable in addition to the limits.

(iii) Requirements of specific coverage or limits contained in this section are not intended as a limitation on coverage, limits, or other requirement, or a waiver of any coverage normally provided by any insurance. Any available coverage shall be provided to the parties required to be named as Additional Insured pursuant to this Agreement.

f. Evidence Required

Prior to execution of the Agreement, the Consultant shall file with the City evidence of insurance from an insurer or insurers certifying to the coverage of all insurance required herein. Such evidence shall include original copies of the ISO CG 00 01 (or insurer's equivalent) signed by the insurer's representative and Certificate of Insurance (Acord Form 25-S or equivalent), together with required endorsements. All evidence of insurance shall be signed by a properly authorized officer, agent, or qualified representative of the insurer and shall certify the names of the insured, any additional insureds, where appropriate, the type and amount of the insurance, the location and operations to which the insurance applies, and the expiration date of such insurance.

g. Policy Provisions Required

(i) Consultant shall provide the City at least thirty (30) days prior written notice of cancellation of any policy required by this Agreement, except that the Consultant shall provide at least ten (10) days prior written notice of cancellation of any such policy due to non-payment of premium. If any of the required coverage is cancelled or expires during the term of this Agreement, the Consultant shall deliver renewal certificate(s) including the General Liability Additional Insured Endorsement to the City at least ten (10) days prior to the effective date of cancellation or expiration.

(ii) The Commercial General Liability Policy and Automobile Policy shall each contain a provision stating that Consultant's policy is primary insurance and that any

insurance, self-insurance or other coverage maintained by the City or any named insureds shall not be called upon to contribute to any loss.

(iii) The retroactive date (if any) of each policy is to be no later than the effective date of this Agreement. Consultant shall maintain such coverage continuously for a period of at least three years after the completion of the work under this Agreement. Consultant shall purchase a one (1) year extended reporting period A) if the retroactive date is advanced past the effective date of this Agreement; B) if the policy is cancelled or not renewed; or C) if the policy is replaced by another claims-made policy with a retroactive date subsequent to the effective date of this Agreement.

(iv) All required insurance coverages, except for the professional liability coverage, shall contain or be endorsed to waiver of subrogation in favor of the City, its officials, officers, employees, agents, and volunteers or shall specifically allow Consultant or others providing insurance evidence in compliance with these specifications to waive their right of recovery prior to a loss. Consultant hereby waives its own right of recovery against City, and shall require similar written express waivers and insurance clauses from each of its sub-consultants.

(v) The limits set forth herein shall apply separately to each insured against whom claims are made or suits are brought, except with respect to the limits of liability. Further the limits set forth herein shall not be construed to relieve the Consultant from liability in excess of such coverage, nor shall it limit the Consultant's indemnification obligations to the City and shall not preclude the City from taking such other actions available to the City under other provisions of the Agreement or law.

h. Qualifying Insurers

(i) All policies required shall be issued by acceptable insurance companies, as determined by the City, which satisfy the following minimum requirements:

(1) Each such policy shall be from a company or companies with a current A.M. Best's rating of no less than A:VII and admitted to transact in the business of insurance in the State of California, or otherwise allowed to place insurance through surplus line brokers under applicable provisions of the California Insurance Code or any federal law.

i. Additional Insurance Provisions

(i) The foregoing requirements as to the types and limits of insurance coverage to be maintained by Consultant, and any approval of said insurance by the City, is not intended to and shall not in any manner limit or qualify the liabilities and obligations otherwise assumed by the Consultant pursuant to this Agreement, including but not limited to, the provisions concerning indemnification.

(ii) If at any time during the life of the Agreement, any policy of insurance required under this Agreement does not comply with these specifications or is canceled and not replaced, City has the right but not the duty to obtain the insurance it deems necessary and any premium paid by City will be promptly reimbursed by Consultant or City will withhold amounts sufficient to pay premium from Consultant payments. In the alternative, City may cancel this Agreement.

(iii) The City may require the Consultant to provide complete copies of all insurance policies in effect for the duration of the Project.

(iv) Neither the City nor any of its officials, officers, employees, agents or volunteers shall be personally responsible for any liability arising under or by virtue of this Agreement.

j. Sub-consultant Insurance Requirements. Consultant shall not allow any subcontractors or sub-consultants to commence work on any subcontract until they have provided evidence satisfactory to the City that they have secured all insurance required under this section. Policies of commercial general liability insurance provided by such subcontractors or sub-consultants shall be endorsed to name the City as an additional insured using ISO form CG 20 38 04 13 or an endorsement providing the exact same coverage. If requested by Consultant, City may approve different scopes or minimum limits of insurance for particular subcontractors or sub-consultants.

12. Indemnification.

a. To the fullest extent permitted by law, Consultant shall defend (with counsel reasonably approved by the City), indemnify and hold the City, its officials, officers, employees, agents and volunteers free and harmless from any and all claims, demands, causes of action, suits, actions, proceedings, costs, expenses, liability, judgments, awards, decrees, settlements, loss, damage or injury of any kind, in law or equity, to property or persons, including wrongful death, (collectively, "Claims") in any manner arising out of, pertaining to, or incident to any alleged acts, errors or omissions, or willful misconduct 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's obligation to indemnify shall not be restricted to insurance proceeds, if any, received by the City, its officials, officers, employees, agents or volunteers.

b. Additional Indemnity Obligations. Consultant shall defend, with counsel of City's choosing and at Consultant's own cost, expense and risk, any and all Claims covered by this section that may be brought or instituted against the City, its officials, officers, employees, agents or volunteers. Consultant shall pay and satisfy any judgment, award or decree that may be rendered against the City, its officials, officers, employees, agents or volunteers as part of any such claim, suit, action or other proceeding. Consultant shall also reimburse City for the cost of any settlement paid by the City, its officials, officers, employees, agents or volunteers as part of any such claim, suit, action or other proceeding. Such reimbursement shall include payment for the City's attorney's fees and costs, including expert witness fees. Consultant shall reimburse the City, its officials, officers, employees, agents and 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 not be restricted to insurance proceeds, if any, received by the City, its officials, officers, employees, agents and volunteers.

13. California Labor Code Requirements.

a. Consultant is aware of the requirements of California Labor Code Sections 1720 et seq. and 1770 et seq., which require the payment of prevailing wage rates and the performance of other requirements on certain “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, if applicable. Consultant shall defend, indemnify and hold the City, its officials, officers, employees and agents free and harmless from any claims, liabilities, costs, penalties or interest arising out of any failure or alleged failure to comply with the Prevailing Wage Laws. It shall be mandatory upon the Consultant and all sub-consultants to comply with all California Labor Code provisions, which include but are not limited to prevailing wages, employment of apprentices, hours of labor and debarment of contractors and subcontractors.

b. If the services are being performed as part of an applicable “public works” or “maintenance” project, then pursuant to Labor Code Sections 1725.5 and 1771.1, the Consultant and all sub-consultants performing such Services must be registered with the Department of Industrial Relations. Consultant shall maintain registration for the duration of the Project and require the same of any sub-consultants, as applicable. 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.

14. Verification of Employment Eligibility.

By executing this Agreement, Consultant verifies that it fully complies with all requirements and restrictions of state and federal law respecting the employment of undocumented aliens, including, but not limited to, the Immigration Reform and Control Act of 1986, as may be amended from time to time, and shall require all sub-consultants and sub-sub-consultants to comply with the same.

15. Laws and Venue.

This Agreement shall be interpreted in accordance with the laws of the State of California. If any action is brought to interpret or enforce any term of this Agreement, the action shall be brought in a state or federal court situated in the County of San Luis Obispo, State of California.

16. Termination or Abandonment

a. City has the right to terminate or abandon any portion or all of the work under this Agreement by giving ten (10) calendar days written notice to Consultant. In such event, City shall be immediately given title and possession to all original field notes, drawings and specifications, written reports and other documents produced or developed for that portion of the work completed and/or being abandoned. City shall pay Consultant the reasonable value of services rendered for any portion of the work completed prior to termination. If said termination occurs prior to completion of any task for the Project for which a payment request has not been received, the charge for services performed during such task shall be the reasonable value of such services, based on an amount mutually agreed to by City and Consultant of the portion of such task completed but not paid prior to said termination. City shall not be liable for any costs other than the charges or portions thereof which are specified herein. Consultant shall not be entitled to payment for unperformed services, and shall not be entitled to damages or compensation for termination of work.

b. Consultant may terminate its obligation to provide further services under this Agreement upon thirty (30) calendar days' written notice to City only in the event of substantial failure by City to perform in accordance with the terms of this Agreement through no fault of Consultant.

17. Documents. Except as otherwise provided in "Termination or Abandonment," above, all original field notes, written reports, Drawings and Specifications and other documents, produced or developed for the Project shall, upon payment in full for the services described in this Agreement, be furnished to and become the property of the City.

18. Organization

Consultant shall assign Iris Priestaf as Project Manager. The Project Manager shall not be removed from the Project or reassigned without the prior written consent of the City.

19. Limitation of Agreement.

This Agreement is limited to and includes only the work included in the Project described above.

20. Notice

Any notice or instrument required to be given or delivered by this Agreement may be given or delivered by depositing the same in any United States Post Office, certified mail, return receipt requested, postage prepaid, addressed to:

CITY:

City of El Paso de Robles

1000 Spring Street

Paso Robles, CA 93446

Attn: Dick McKinley

CONSULTANT:

Todd Groundwater

2490 Mariner Square Loop, Suite 215

Alameda, CA 94501

Attn: Iris Priestaf

and shall be effective upon receipt thereof.

21. Third Party Rights

Nothing in this Agreement shall be construed to give any rights or benefits to anyone other than the City and the Consultant.

22. Equal Opportunity Employment.

Consultant represents that it is an equal opportunity employer and that it shall not discriminate against any employee or applicant for employment because of race, religion, color, national origin, ancestry, sex, age or other interests protected by the State or Federal Constitutions. 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.

23. Entire Agreement

This Agreement, with its exhibits, represents the entire understanding of City and Consultant as to those matters contained herein, and supersedes and cancels any prior or contemporaneous oral or written understanding, promises or representations with respect to those matters covered hereunder. Each party acknowledges that no representations, inducements, promises or agreements have been made by any person which are not incorporated herein, and that any other agreements shall be void. This Agreement may not be modified or altered except in writing signed by both Parties hereto. This is an integrated Agreement.

24. Severability

The unenforceability, invalidity or illegality of any provision(s) of this Agreement shall not render the provisions unenforceable, invalid or illegal.

25. Successors and Assigns

This Agreement shall be binding upon and shall inure to the benefit of the successors in interest, executors, administrators and assigns of each party to this Agreement. However, Consultant shall not assign or transfer by operation of law or otherwise any or all of its rights, burdens, duties or obligations without the prior written consent of City. Any attempted assignment without such consent shall be invalid and void.

26. Non-Waiver

None of the provisions of this Agreement shall be considered waived by either party, unless such waiver is specifically specified in writing.

27. Time of Essence

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

28. City's Right to Employ Other Consultants

City reserves its right to employ other consultants, including engineers, in connection with this Project or other projects.

29. 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. For breach or violation of this warranty, City shall have the right to rescind this Agreement without liability. For the term of this Agreement, no director, official, officer or employee of City, during the term of his or her service with City, shall have any direct interest in this Agreement, or obtain any present or anticipated material benefit arising therefrom.

[SIGNATURES ON FOLLOWING PAGE]

**SIGNATURE PAGE FOR PROFESSIONAL SERVICES AGREEMENT
BETWEEN THE CITY OF EL PASO DE ROBLES
AND TODD GROUNDWATER**

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the date first written above.

CITY OF EL PASO DE ROBLES

TODD GROUNDWATER

By: _____
Thomas Frutchey
City Manager

By: _____
Iris Priestaf
President

ATTEST:

By: _____
Kristen L. Buxkemper
Deputy, City Clerk

APPROVED AS TO FORM:

By: _____
City Attorney

REVIEWED:

By: _____
City Project Manager

EXHIBIT A
Scope of Services



February 21, 2017

Dick McKinley, Public Works Director
City of Paso Robles
1000 Spring Street
Paso Robles, CA

Re: Proposal – Technical Support for Planning Compliance with the Sustainable Groundwater Management Act (SGMA)

Dear Mr. McKinley,

As we discussed, local agencies in the Paso Robles Groundwater Basin are organizing for compliance with the Sustainable Groundwater Management Act (SGMA). In the San Luis Obispo County portion of the basin, Groundwater Sustainability Agencies (GSAs) will include the City of Paso Robles and San Miguel Community Services District (CSD), and potentially the County of San Luis Obispo and proposed Shandon-San Juan Water District and Estrella-El Pomar-Creston Water District. Termed the GSA Working Group for this proposal, they are proceeding toward the goal of preparing a single Groundwater Sustainability Plan (GSP) for the San Luis Obispo County portion of the basin. As they proceed, some fundamental questions include: what are we getting into with regard to GSP requirements? How much of our existing work is directly applicable? What other efforts do we need to plan for?

This proposal addresses those questions for the above-listed potential GSAs. We recognize that similar discussions are occurring in the Monterey County portion of the basin. A unified GSP could encompass the entire basin; alternatively, a separate GSP can be prepared for the Monterey County portion. This would require a coordination agreement to ensure use of the same data, methodologies, and assumptions between the two GSPs. At this time, this proposal addresses the San Luis Obispo County portion of the basin.

The objectives of the proposed work are 1) to identify and comprehend required elements of a GSP, 2) to review previous documents and existing management efforts in light of the requirements, and 3) to identify significant additional tasks needed for a GSP. In addition, we recognize that numerical modeling will be an important part of GSP preparation. A numerical model can be useful in defining how a groundwater system works (e.g., water balance), evaluating the sustainable yield and overdraft, and evaluating strategies (projects and programs) for achieving sustainability. Accordingly, another objective is to review the 2016 Paso Robles Basin model with regard to GSP applications.

Todd Groundwater is well-qualified to fulfill these objectives. Principals of Todd Groundwater have been engaged in SGMA since before its inception, participating on SGMA-related

subcommittees through the Groundwater Committee for the Association of California Water Agencies (ACWA). We are currently assisting five GSAs/local agencies with SGMA compliance, including planning for and initial preparation of GSPs. In addition, we also assisted Zone 7 Water Agency (in the Livermore Valley groundwater basin) in preparing an Alternative Plan. Alternative Plans (for basins that have been sustainably managed for at least ten years) are “functionally equivalent” to GSPs. Assisting with preparation of the Alternative Plan allowed us to work through the technical elements of a GSP.

Moreover, the Todd Groundwater personnel proposed for this work all bring knowledge and working experience in the Paso Robles Basin. I have been pleased to work in the basin since 1999, beginning with service on the Technical Review Committee for the original Paso Robles Basin Study. My work—mostly for the City and County and in collaboration with overlying landowners—has addressed water balance issues, water banking and managed aquifer recharge, and salt/nutrient management planning among other topics. I also served on the team that updated the Paso Robles Basin Model.

I am pleased to propose a team including Gus Yates, who has provided peer review of local water balance studies and has hands-on experience with the updated model; Edwin Lin, who assisted with the model update and is now investigating recharge feasibility; and Kate White, who has assisted the City with the preparation of three consecutive Urban Water Management Plans and brings relevant knowledge of available water supplies (e.g., Nacimiento, recycled water, groundwater resources).

On behalf of this team, I appreciate the opportunity to submit our qualifications, and look forward to assisting you with your sustainable groundwater management.

Sincerely yours,

A handwritten signature in blue ink, appearing to read "Iris Priestaf".

Iris Priestaf, PhD
President

Understanding and Approach

SGMA has been evolving rapidly since its 2014 passage. Important milestones have included development of regulations for preparation of a GSP, modification of basin boundaries, and updated prioritization of basins. The Paso Robles Groundwater Basin¹ has been designated as high priority and as critically overdrafted. Accordingly, completion of a GSP and submittal to DWR is required by January 31, 2020, about three years from now.

First, we know from experience that the GSP regulations are comprehensive, detailed, and complex with internal cross-references. Accordingly, we recommend use of available checklists to track requirements. DWR has provided such checklists (the Alternative Elements Guide and the Checklist for GSP Submittal). We have already used the Elements Guide, which provides water code details and a blank column for documentation. This allows us to link the regulations to available local documents, evaluate the existing work, and identify gaps.

Second, we recognize that considerable work already has been done in the basin. We already have many of the local groundwater documents and are familiar with much of the water resource monitoring. To identify and obtain other relevant information, we will make a request to the GSA Working Group.

The next step involves review of the GSP requirements and respective local documents/programs, with identification of tasks needed for a complete GSP. This review will recognize that basin boundaries have changed from the original Paso Robles Basin Study and that data and analyses may need to be reorganized. Some sustainability criteria (e.g., undesirable results, minimum thresholds, interim milestones, management objectives) will be revised from existing Basin Management Objectives (e.g., BMOs for groundwater levels) and some sustainability criteria will need to be newly defined.

We will address the 2016 Paso Robles Basin model with regard to GSP applications. The model was recently expanded and updated through 2011. At some point (as yet to be determined), another update (perhaps with recalibration) will be needed for the GSP. Timing and scope of the update will be influenced by factors such as the availability of actual pumping data (not just estimates), current studies (such as the City's current recharge investigations for recycled water) and weather conditions. We note that the basin is now experiencing and reacting to the 2016-2017 wet year; this is important new information.

Based on the above, we will prepare a scope of work for development of a GSP. This will include specific tasks within an implementation plan that provides a sequence of tasks, schedule, and identification of respective responsibilities among GSAs as needed. This effort will involve some coordination with the GSA Working Group. We also will need to consult with DWR and SWRCB staff (among others), for example to clarify GSP requirements. We have good working relationships with key State staff and will report back to you to maintain a coordinated effort.

¹ Herein "basin," formally Paso Robles Area of the Salinas Valley Groundwater Basin (No. 3-004.06).

Scope of Work

Task 1 – Identify GSP Requirements

The objective of this task is to identify and comprehend the GSP requirements. We will refer as needed to SGMA, the GSP regulations, and both available checklists. We already have used the DWR Alternative Elements Guide and recommend using it in this task. The Alternative Elements Guide was developed for agencies preparing Alternative Plans, which are functionally equivalent to GSPs. The main advantage of the Elements Guide is that it quotes the water code and provides more detail than the Checklist for GSP Submittal. It also is designed for reference to existing documents, so that we can link the regulations to relevant sections of available local documents and add notations. This will aid the evaluation of existing work and help identify gaps.

We will provide an Elements Guide for planning the GSP. The Elements Guide is comprehensive and detailed, so we recommend rolling it out at a meeting. This would allow preliminary highlighting of some elements that we know are not yet covered, elements that require update/revisions, and elements that can be lifted from existing documents.

DWR also is providing other important guidance documents, including the GSP annotated outline and the Best Management Practices document, which addresses groundwater monitoring protocols, identification of data gaps, development of the hydrogeologic conceptual model, evaluation of the water budget, and modeling. A Guidance Document for Establishing Sustainable Management Criteria is expected soon, as are tools for mapping groundwater-dependent ecosystems. We will refer to these as needed.

Relevant Meeting: Kickoff Meeting with overview presentation of Elements Guide

Deliverable: Elements Guide template and powerpoint presentation

Task 2 – Review Previous Studies

Task 2 will be contemporaneous with Task 1. We will begin with development of a list of references and data sources for review. At the kickoff meeting, we will discuss available information and contacts. The next step is to assess available documents and management programs for applicability to the GSP; this will be accomplished by comparing the specific contents of previous studies (and the characteristics of existing programs) with the GSP Requirements as listed in the Elements Guide, and annotating the Elements Guide. We will prepare a technical memorandum that conveys the reference list and annotated Elements Guide, and summarizes major data gaps.

Many of the elements required in a GSP already have been addressed at least in part. A few key documents are listed below.

- Refinement of the Paso Robles Groundwater Basin Model and Results of Supplemental Water Supply Options Predictive Analysis (2016)

- Urban Water Management Plan, City of Paso Robles (2016)
- Salt and Nutrient Management Plan (2015)
- Paso Robles Groundwater Basin Model Update (2014)
- San Luis Obispo County Integrated Regional Water Management Plan (2014)
- Paso Robles Groundwater Management Plan (GWMP; 2011)
- Peer Review of Paso Robles Groundwater Studies (2010)
- San Luis Obispo County General Plan (2010)
- Water Banking Feasibility Study (2007)
- Paso Robles Groundwater Basin Study Phase II (2005)
- Paso Robles Groundwater Basin Study Phase I (2002)

This task will involve reviewing available documents (most of which are in our library and are familiar to us) and inquiring with local agencies (e.g., County about their monitoring program). As we conduct this review, we will consider not only updates, but also the following.

- SGMA requires a GSP to cover the entire groundwater basin as defined by DWR Bulletin 118. The DWR basin boundaries are different from the basin boundaries defined in the 2002 Paso Robles Basin Study and additional areas (mostly to the southwest) need to be considered.
- The Paso Robles Basin Study defined subareas (e.g., Estrella) that have been used to organize data, analyses, and BMOs. Given that GSAs are organizing with new boundaries, some data and analyses may need to be decompiled and then recompiled for GSAs and/or management areas. For example, current BMO hydrographs represent averages of multiple wells in a subarea.
- We anticipate documentation of the groundwater basin setting and conditions as a whole, with a single water budget for the entire basin in SLO County. This would fulfill requirements of SGMA, support planning for basin sustainability, and help provide consistency of data, methods, and assumptions with a Monterey County GSP for their portion of the basin.
- Actual meter data on groundwater extractions would be useful for a credible water balance. We note that a GSA, once formed, can require registration of groundwater extraction facilities and installation of meters. From a technical standpoint, getting groundwater production data is a high priority; we can assist with guidelines for metering (by individual producers) and monitoring.
- Consistent with the water code at the time, the 2011 GWMP identified basic BMOs for groundwater levels, quality, subsidence, and connected surface water. These provide a starting point for comprehensive and quantitative definition of undesirable results, minimum thresholds, interim milestones, and management objectives for the sustainability indicators. The GSP will include evaluation of five of the six sustainability indicators².

Relevant Meetings: Kickoff Meeting (included in Task 1) to discuss available data.

² Seawater intrusion is not addressed, given the inland location of the basin.

Deliverable: Technical Memorandum (TM) on Review of Previous Studies with reference list and annotated Elements Guide. The TM will be provided as a draft for your review; comments and questions will be addressed in the final TM.

Task 3 – Evaluate Numerical Model

We will address the 2016 Paso Robles Basin model with regard to GSP applications. The model was recently expanded and updated through 2011. Nonetheless, another update (perhaps with recalibration) would be useful for the GSP, given that actual pumping data may be available, and the basin will have experienced and reacted to the 2016-2017 wet year. Moreover, the local GSAs will likely have defined potential projects for the GSP and thus will have a good idea of what scenarios the model can be applied to; this will allow consideration of other potential model refinements. The technical memorandum for this task will evaluate the capabilities of the current model for providing information that will likely be needed for a GSP (for example, geographic budget subtotals, various types of management scenarios related to enhanced recharge or modified pumping). It will also include a review of water-level data since 2011 and a recommendation regarding the value of extending and recalibrating the model with data from 2012-2017, or scheduling the update later.

Meetings: No meetings are required for this task.

Deliverable: Technical Memorandum on Modeling for the GSP. The TM will be provided as a draft for your review; comments and questions will be addressed in the final TM.

Task 4 – Develop Scope of Work for GSP

This task will build on the preceding tasks to provide a roadmap for development of the GSP. Task 2 will demonstrate the tasks needed for completion of a GSP. Some of these will be relatively stand-alone and others will require scheduling and sequencing. The roadmap will include an implementation plan showing the needed tasks, sequencing and scheduling for completion and submittal of the GSP by the January 31, 2020 deadline. It will also include an annotated outline for the GSP. We will refer to the Groundwater Sustainability Plan (GSP) Annotated Outline and to DWR evaluation criteria to aid in GSP development and to standardize future annual reporting.

We also note that the preparation of more than one GSP in the Paso Robles Basin will trigger the requirement for a coordination agreement among local GSAs. This coordination agreement, which must be submitted to DWR along with all GSPs covering the basin, will be the basis for demonstrating that each GSP has used the same data and methods for groundwater elevation data, extraction data, surface water supply, total water use, change in storage, water budget, and sustainable yield. Accordingly, the coordination agreement is likely to have technical content. Technical support to a coordination agreement is not included in this scope, but it is a reasonable extension of this effort and would involve comparison of the technical approach for the San Luis Obispo County GSP with that of Monterey County.

Meetings: One meeting is proposed for this task.

Deliverable: Preliminary Scope of Work provided as draft and final.

Todd Groundwater Staff

Todd Groundwater is a consulting firm specializing in groundwater, including exploration, planning, development, management, and protection of groundwater resources. Our firm was founded in 1978 by Dr. David Keith Todd, author of the widely used textbook, *Groundwater Hydrology*. Over the past 39 years, we have maintained our commitment to providing our clients and community with excellent groundwater consulting services using sound science and recognizing real-world practicalities. Our firm is an employee-owned California S-corporation and registered Small Business Enterprise.

Todd Groundwater provides the full range of groundwater services from groundwater planning, development, management, and protection to peer reviews and litigation support. We have a particular focus on hydrogeologic characterization of groundwater basins and groundwater basin management, including compliance with the Sustainable Groundwater Management Act.

Our professional staff members have advanced degrees in civil engineering, geology, hydrogeology, hydrology, geochemistry, geography, and environmental sciences. All of our senior geologists and engineers are professionally registered in California (and other states) and all of our senior geologists are certified hydrogeologists; our two principal geologists also are engineering geologists. While providing the breadth of training and experience needed for integrated groundwater management, we have remained a small firm in order to provide specialized groundwater services to our clients. With an average staff tenure of fifteen years, we provide our clients with reliable and consistent service from a cohesive team. Most of our clients are public agencies who repeatedly request our expertise on specialized groundwater projects often completed within a year; accordingly, our staff is regularly available for new projects.

Proposed team members bring working experience in the Paso Robles Groundwater Basin. They are introduced below with brief summaries of their qualifications and suggested roles in this effort. Resumes are attached.

Iris Priestaf, PhD, President

Iris Priestaf, Ph.D., has more than 30 years' experience in groundwater investigations, specializing in groundwater basin characterization, development, and management. She has worked for local agencies on groundwater management issues of the Paso Robles Basin since 1999 and brings expertise and working experience with SGMA. For this effort, she will serve as project manager and will participate in the meetings. She will review GSP requirements, assess previous work in light of a GSP and provide a draft GSP scope of work. She will work with Mr. Yates on the Task 3 modeling memo.

Kate White, PE, Senior Engineer

Kate White has been a practicing engineer for more than 25 years and brings experience with water supply assessments and urban water management plans (UWMPs), including three successive UWMPs for the City of Paso Robles. She is versed in SGMA and already is working on a GSP for a GSA in Kern County. Highly regarded among her clients for her attention to detail and

precision, she will work closely with Dr. Priestaf on review of local documents with regard to GSP requirements and will assist in laying out the roadmap for a GSP.

Gus Yates, PG, CHG, Senior Hydrologist

Gus Yates is a water resources expert recognized for his comprehension of complex natural hydrologic and water supply systems. He brings specific technical skills in numerical modeling and familiarity with the Paso Robles groundwater basin. In 2010 he provided expert peer review of local water balance studies and the numerical model. He also has provided hydrogeological support to the City of Paso Robles in planning for SGMA. Mr. Yates will focus on Task 3 evaluation of the 2016 numerical model and will contribute to the Task 4 roadmap for a GSP.

Edwin Lin, PG, CHG, Principal Hydrogeologist

Mr. Lin has 18 years of experience in groundwater basin management, including conceptual model development and managed aquifer recharge evaluations. He has worked on several Paso Robles Basin studies, including the 2007 Basin Update, recent update of the Paso Robles Basin model, and currently the groundwater recharge evaluation for the City of Paso Robles recycled water distribution system preliminary design. He will lend his considerable knowledge of local basin conditions, monitoring programs, and data to the team as needed.

Schedule and Cost Estimate

We are ready to begin upon notice to proceed and estimate a schedule of three months, depending on timely receipt of important background documents and comments on draft deliverables. We also assume that the City will take the lead in arranging meetings and consolidating comments on deliverables.

Our proposed budget is \$44,545 as summarized below. Todd Groundwater submits monthly invoices on a time and materials basis and we regard this as a not-to-exceed budget.

Task 1. Identify GSP Requirements	\$ 6,410
Task 2. Review Previous Studies	\$ 16,880
Task 3. Evaluate Numerical Model	\$ 8,850
Task 4. Develop Scope of Work for GSP	\$ 12,400
Total	\$ 44,540

We appreciate the opportunity to assist you with this important effort.

Iris Priestaf, PhD

President

EDUCATION

PhD, Geography, University of California at Berkeley, 1983
MA, Geography, University of California at Berkeley, 1976
BA, Geography, University of California at Santa Barbara, 1974



PROFESSIONAL SUMMARY

Iris Priestaf, PhD, has more than 30 years' experience in groundwater investigations. She has consulted on numerous projects involving groundwater basin characterization, development, and management. Her expertise in water balance studies has been built on academic training in climatology, meteorology, hydrology, soil science, geomorphology, biogeography, and related disciplines, plus consulting projects across California in a variety of environments and using multiple techniques relevant to the issues at hand. She has worked with numerous water agencies, cities, counties, and private organizations in the preparation of groundwater management plans, urban water management plans, water supply assessments, and environmental documents. Through the Groundwater Committee of the Association of California Water Agencies, she participated actively in planning for the Sustainable Groundwater Management Act (SGMA) and has provided numerous presentations on SGMA. She is now working with various agencies toward SGMA compliance.

Technical Support for Groundwater Management, Paso Robles Groundwater Basin

For more than 15 years, Dr. Priestaf has provided groundwater management support to the City of Paso Robles and County of San Luis Obispo in the Paso Robles groundwater basin. This support has included peer review of studies, including the foundational Paso Robles Groundwater Basin Study. Subsequently, she worked with representatives of the County of San Luis Obispo, City, and landowners to support groundwater basin management planning. She managed a groundwater basin update report and a subsequent evaluation of basin-wide pumping. She served as peer reviewer for a groundwater banking study and the Salt/Nutrient Management Plan, and provided technical support to the City for the Groundwater Management Plan.

Paso Robles Groundwater Basin Model Update, County of San Luis Obispo

Todd Groundwater was on the GeoScience team retained the San Luis Obispo County to update the numerical model for the Paso Robles groundwater basin. A key feature of the update was extension of the modeling analysis to the watershed, with development of a rainfall-runoff model that was linked to the MODFLOW model. Dr. Priestaf led the Todd team,

which was responsible for data collection, water balance analyses including evaluation of groundwater pumping, technical support for modeling, internal peer review of the model, and public outreach.

Urban Water Management Plans, City of Paso Robles

Dr. Priestaf has served as Project Manager for the City of Paso Robles' 2005, 2010 and 2015 Urban Water Management Plans. The most recent plan describes the City's historical, current and projected water demands and provides a comparison of water demands to current and future water supplies, including groundwater, Nacimiento supplies, and recycled water. The plan also describes water conservation measures and future water savings consistent with State water conservation mandates. She also has guided nine water supply evaluations for the City. Recognizing local overdraft, the City requires that development projects demonstrate the availability of water supply by sponsoring a water supply evaluation. The City also requires use of recycled water (when available) and imported Nacimiento Reservoir supply.

SGMA Alternative Plan, Zone 7 Water Agency, Livermore Valley Groundwater Basin

In the Sustainable Groundwater Management Act (SGMA) of 2014, Zone 7 was deemed to be an exclusive Groundwater Sustainability Agency (GSA) within its statutory boundaries. SGMA requires GSAs to prepare a Groundwater Sustainability Plan (GSP); alternatively, SGMA allows a functionally equivalent Alternative Plan if such a Plan can demonstrate that groundwater has been managed sustainably for at least ten years. Given its long history of sustainable management, Zone 7 electing to prepare an Alternative Plan. Dr. Priestaf assisting Zone 7 staff in the preparing the Alternative Plan, including writing sections and review of the entire document (using the DWR checklist) for compliance with GSP requirements.

Sustainable Groundwater Management, San Benito County Water District

San Benito County Water District actively manages groundwater resources in the San Juan, Bolsa, and Hollister basins. The District, assisted by Todd Groundwater, prepared an updated groundwater management plan in 2003 and provides regular status reports through its Annual Groundwater Reports. With passage of SGMA in 2014, the District initiated SGMA planning, which has included evaluation of groundwater basin boundaries and planning for complete GSA coverage of the three groundwater basins (which extend into Santa Clara County). As of 2017, the District is taking steps to become a GSA; Todd Groundwater is organizing application materials.

Sustainable Groundwater Management, City of Corona

Todd Groundwater prepared the City of Corona groundwater management plan, which was adopted in 2008; Dr. Priestaf served as internal reviewer. She since has advised on subsequent work, including feasibility studies of potential production well sites, assessment of groundwater recharge locations and evaluation of salt loading. Currently Todd Groundwater is assisting the City in compliance with SGMA, including preparation of a successful application to modify local groundwater basin boundaries. This application involved documentation of the local hydrogeology, groundwater agencies, management activities, and explanation of how the basin boundary changes would enhance groundwater management. Dr. Priestaf provided SGMA advice and internal review.

Katherine L. White, PE

Senior Engineer

EDUCATION

MS, Civil Engineering, University of California, Berkeley, 1987
BS, Agricultural Engineering, University of Illinois, Urbana, 1983

REGISTRATIONS

Professional Civil Engineer California, No. C44262



PROFESSIONAL SUMMARY

Kate White has been a practicing engineer for more than 25 years. She has been responsible for a broad range of projects involving groundwater sustainability and management, water supply reliability, water resources engineering, water quality and groundwater contamination investigations, California Environmental Quality Act (CEQA) support, water rights, and litigation support. Her substantial work on Urban Water Management Plans, Water Supply Assessments, and Groundwater Management Plans—including compliance with the Sustainable Groundwater Management Act (SGMA)—provides a bridge between water supply and land use planning. She is highly regarded among her clients for her data management and quantitative skills, her attention to detail, and precision. Listed below are selected projects with which Ms. White has been involved.

Groundwater Sustainability Plan (GSP), Kern River Groundwater Sustainability Agency (GSA)

Ms. White is serving as Project Engineer for development of a GSP for the Kern River GSA, one of the first GSAs to form in the high-priority Kern County Groundwater Subbasin. Initial steps toward the GSP include development of a series of white papers to provide the technical basis for the required cooperative agreement among GSAs in the basin. These also will be foundational for the GSP, which will be developed in accordance with SGMA and GSP regulations and guided by DWR Best Management Practices. Ms. White is currently preparing the initial chapters of the GSP, which describe water resources, water use, water management, and land use planning in this dynamic and complex subbasin.

Urban Water Management Plan, City of Paso Robles

Ms. White was Project Manager for the 2015 Urban Water Management Plan for the City of Paso Robles in San Luis Obispo County. The plan describes the City's current and projected water demands and provides a comparison of water demands to available water supplies. The

water shortage contingency portion of the plan considers the impact on the City's water supply of drought and catastrophic water supply interruption, and presents guidelines for the City's response. The plan also describes water demand management measures for water conservation in terms of current implementation and recommendations for continuation, enhancement, or future implementation. Ms. White also prepared the 2005 and 2010 UWMPs for the City. The City's active water supply management and diverse supply portfolio provides supply reliability and conservation into the future. Ms. White also has served as Project Manager for nine water supply evaluations for the City.

Hydrogeologic Assessment, County of Monterey

Ms. White served as Project Manager for a groundwater supply study in southern Monterey County. The County adopted an ordinance that provides standards and procedures for assessment of long-term water supply for proposed projects; Todd Groundwater is an approved consultant for these assessments. Ms. White evaluated a proposed project in Lockwood Valley in the southern County that involved conversion of agricultural land to residential subdivisions. The study focused on availability of groundwater and potential impacts on groundwater quality. Analyses included water balance calculations with and without the development, which indicated increased water demand and sufficient supply. Nitrate balance calculations also were prepared, indicating potential impacts if large numbers of livestock are kept on the property. Mitigation measures were recommended to reduce potential impacts.

Salt Nutrient Management Plans, various basins in California

Ms. White was Project Engineer for the salt/nutrient management plans (SNMPs) for the Llagas Basin (Santa Clara Valley Water District), the Hollister/San Juan Basins (San Benito County Water District), and the San Antonio Basin and the Lompoc Basin (Vandenberg Air Force). These SNMPs were prepared in accordance with the SWRCB Recycled Water Policy and included basin characterization, salt loading analysis with calibration to historical trends, development of a monitoring plan and implementation measures, and definition of goals and objectives. Ms. White's responsibilities included identification of existing goals and objectives (e.g., from the Central Coast Basin Plan). She also worked on the development of implementation measures; her work recognizes and builds on the numerous programs already in existence.

Groundwater Management Plan, Kern Delta Water District

Ms. White assisted Kern Delta Water District (KDWD) with update of their groundwater basin management plan. KDWD covers more than 200 square miles in southern Kern County where significant hydrogeologic variability occurs in the groundwater system with regard to occurrence, levels, and flow. Conjunctive use programs, by both KDWD and adjacent agencies, create a dynamic groundwater system with large volumes of water being added or extracted from the system at any given time. The GWMP Update documented historical and current conditions in the context of ongoing management activities. It addressed recent legislative requirements and re-evaluated groundwater basin conditions and updated Basin Management Objectives (BMOs). It coordinated with neighboring management plans and activities for surface water (local and imported) supply and updated monitoring protocols.

Eugene B. (Gus) Yates, PG, CHG

Senior Hydrologist

EDUCATION

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

REGISTRATIONS

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



PROFESSIONAL SUMMARY

Gus Yates is an accomplished Senior 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.

Mr. Yates is an experienced project manager with exceptional communication skills, who has consulted successfully with public agencies, private-sector clients, and non-profit groups in groundwater and surface water hydrology, biohydrology, and water resources management. He is an acknowledged expert in basin yield analysis, groundwater modeling, quantification of groundwater budgets, and evaluation of groundwater flow and quality, and has served as an expert witness in cases regarding groundwater conditions, basin yield, and stream-aquifer interactions.

Peer Review of Paso Robles Groundwater Basin Model, San Luis Obispo County

The Paso Robles groundwater basin has undergone rapid development and has experienced significant groundwater level declines, which prompted update of the MODFLOW model. This model update included not only update through time (to 2011), but also addition of a watershed model to better understand inflow to the basin around its margins and along

stream channels. Mr. Yates provided in-depth technical review throughout the process of refining and recalibrating the Paso Robles Groundwater Model; refinement and application of the model was completed in 2016.

Water Balance Peer Review, City of Paso Robles

In 2010, Mr. Yates served as expert peer reviewer of Paso Robles basin groundwater studies for the City of Paso Robles. Five studies over 10 years (including a groundwater model) presented differing conclusions regarding basin yield and the presence of overdraft. The technical strengths and weaknesses of the studies were evaluated, and a coherent summary of basin conditions was prepared in lay language for planners and the public. This peer review helped point the way toward update of the groundwater model and water balance.

Groundwater Management and Modeling, San Benito County Water District

Mr. Yates has provided technical support to the District since 1996, including preparation of the District's first groundwater management plan and subsequent annual groundwater reports. Mr. Yates also developed a regional groundwater flow and salinity model for the District's portion of the Gilroy-Hollister basin using 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 to evaluate long-term salinity trends, impacts of wastewater recycling, and alternative conjunctive use strategies to manage water quality and shallow groundwater levels.

Peer Review of Basin Plan for the Los Osos Groundwater Basin, Parties to the Adjudication

The Los Osos Basin, located on the San Luis Obispo County coast, is in the process of adjudication, which includes preparation of a Basin Plan. Mr. Yates was retained for a peer review of the Basin Plan focused on the accuracy of technical information, the reasonableness of assumptions and conclusions, and the overall adequacy of recommended measures to address nitrate contamination and seawater intrusion. While acknowledging the usefulness of the Plan and providing specific recommendations, Mr. Yates emphasized the urgency of the seawater intrusion problem and the need to adopt and implement the Basin Plan (including water conservation measures and cost sharing) without delay.

Indirect Potable Reuse (IPR) Planning, Santa Clara Valley Water District (SCVWD)

Mr. Yates is Project Modeler for a study to site facilities and assess regulatory compliance of planned IPR (spreading and injection) of advanced-treated recycled water. He has taken SCVWD's G-MOD MODFLOW model and incorporated several refinements. He has extended and modified layers, included denser grid cells, added a river package to better simulate surface water/groundwater interaction, and provided a more rigorous and detailed recharge model. He extended the model domain into San Mateo County and the Santa Clara Formation in the hills above Palo Alto to account for pumping in those areas. The newly calibrated model is currently being used to assess mounding and travel time from injection and spreading facilities to nearby potable supply wells in accordance with Division of Drinking Water Recycled Water Replenishment regulations.

Edwin H. Lin, PG, CHG

Principal Hydrogeologist

EDUCATION

MS, Groundwater Hydrology, Flinders University (Australia), 2006
BS, Geological and Environmental Sciences, Stanford University,
1998

REGISTRATIONS

Professional Geologist California, No. 8312
Certified Hydrogeologist California, No. 907



PROFESSIONAL SUMMARY

Mr. Lin has 19 years of experience in groundwater basin management, including water supply exploration, basin conceptual model development, and managed aquifer recharge (MAR) evaluations. Mr. Lin has published papers on well clogging mechanisms and pre-treatment options for Aquifer Storage and Recovery (ASR) in cooperation with the Australian Commonwealth Scientific and Industrial Research Organisation. Mr. Lin has also been responsible for the design and construction of municipal water supply and monitoring wells (using a variety of drilling methods) and analysis of aquifer pumping tests. He is skilled in Geographical Information Systems (GIS), database development, groundwater flow and vadose zone modeling, geochemical analyses, and application of advanced environmental statistics. A few recent projects are described below to demonstrate the variety of Mr. Lin's expertise.

Paso Robles Groundwater Basin Model Update, San Luis Obispo County

The Paso Robles groundwater basin has undergone rapid development and has experienced significant groundwater level declines, which prompted update of the MODFLOW model. Mr. Lin has served as Project Hydrogeologist on the model update, which has included not only update through time, but also addition of a watershed model. Mr. Lin led the data acquisition and organization effort that supported development of the watershed model and update of the MODFLOW groundwater model. Data were compiled for a 31-year study period on a monthly and even daily basis, and organized for model upload. Mr. Lin also took a leading role in evaluation of groundwater outflows, including estimation of extensive—but unmetered—agricultural pumping that accounted for planting and irrigation practices and rapid expansion of irrigated acreage. Mr. Lin also participated in model documentation, in peer review of the updated model, and in preparation of future scenarios (e.g., vineyard expansion) for model simulation.

Groundwater Recharge Evaluation for City of Paso Robles Recycled Water Distribution System Preliminary Design

To expand its portfolio of water supplies, the City of Paso Robles is carrying out plans for use of recycled water for irrigation of existing and new golf courses, parks, and vineyards. As Project Hydrogeologist, Mr. Lin currently is leading the hydrogeologic field investigation to identify favorable areas for recycled water recharge in the vicinity of Huer Huero Creek and the planned recycled water pipeline. Several sites were identified using a GIS-based analysis of potential recharge sites. Using CPT testing, soil borings, and infiltration testing, the field investigation is characterizing the sites with regard to infiltration rates of near-surface soils and vadose zone sediments, depth to water to accommodate recharge mounding response, and good hydraulic connection between shallow alluvial and deeper production zone aquifers. The recharge evaluation also will include development of hydrogeologic cross-sections to estimate available storage volumes and replenishment/recovery opportunities.

Paso Robles Groundwater Basin Update, San Luis Obispo County

Mr. Lin served as project hydrogeologist for the Basin Update, which provided an overview of basin conditions including rainfall, groundwater levels and storage, groundwater quality, and groundwater management. The report updated the Paso Robles Groundwater Basin Study that documented conditions from 1980 through 1997 and provided an estimate of perennial yield. Mr. Lin compiled groundwater level data from a variety of sources including the County's ongoing groundwater level monitoring program, municipal and small water system monitoring. He analyzed groundwater levels across the basin and also examined numerous hydrographs; the Update documented groundwater level declines in the center of the basin that persisted from 1981 to 2006. The Update also indicated that effects of recharge from rainfall and subsurface inflow around the margins of the basin were not fully represented, reflecting in part the limitations of the study period and monitoring data.

Groundwater Replenishment Project, Monterey Regional Water Pollution Control Agency

The Monterey Peninsula Groundwater Replenishment (GWR) Project involves the recharge of approximately 2,800 AFY of advanced treated recycled water into the Seaside Groundwater Basin. Todd Groundwater has completed detailed hydrogeologic assessments over several years with emphasis on the evaluation of target aquifers, recharge methods, and injection and recovery sites. Mr. Lin serves as manager of the project's field programs, which to-date has included the installation of the project's first deep monitoring well using the sonic drilling method. Field activities included sediment core analysis for hydraulic and geochemical assessment, geochemical assessment of recycled water and groundwater compatibility, and regional groundwater quality monitoring. Mr. Lin has evaluated recharge impacts to satisfy project EIR requirements, prepared basis-of-design reports for proposed shallow vadose zone and deep injection wells, and worked with water reclamation engineers to establish water treatment goals. Mr. Lin is currently coordinating the drilling and installation of compliance monitoring wells (and test injection wells) which will be used to satisfy the new groundwater recharge regulations pertaining to subsurface injection of recycled water.