

Section One Cover Letter/Introduction



Proposal for
Paso Robles Sub-Basin
Groundwater Sustainability Plan Development





National Experience. Local Focus.

December 4, 2017

Dick McKinley, Public Works Director
City of Paso Robles – City Hall
Public Works Department
1000 Spring Street
Paso Robles, CA 93446

RE: Paso Robles Basin Groundwater Sustainability Plan Development

Dear Mr. McKinley,

The Paso Robles Basin GSAs are seeking assistance in developing a GSP for the Paso Robles Basin. Woodard & Curran, Inc. (formerly RMC Water & Environment) would like to lead the consultant team that assists in this important effort, applying our team's expertise in SGMA compliance, groundwater modeling and basin condition assessment, sustainable water resources management planning, and public outreach and facilitation. Our team includes major subconsultant partners GSI Water Solutions and Todd Groundwater to bring considerable knowledge of the hydrogeology of the basin, extensive groundwater expertise, and relationships with many basin stakeholders.

Our Firm

Woodard & Curran is an integrated engineering, science, and operations company that serves public and private clients locally and nationwide. Woodard & Curran has demonstrated financial stability by continuing to grow and thrive throughout its 38-year history. The company is privately held with 155 shareholders who are actively involved in the business. Our financing arrangements are with Bank of America and include a \$12 million working capital line of credit.

Our Team's Experience

We have formed a comprehensive team of experts with the specific experience required for preparing a GSP for Paso Robles Basin. Our proposed project manager, Leslie Dumas, will be supported by a team of experienced water resource planners, funding experts, modelers, engineers, public outreach specialists, and groundwater specialists. Paul Sorensen and Rob Morrow will support Leslie in successfully managing and executing the GSP within the compact schedule.

Our team has a 20 plus year history of working with key stakeholders in the Paso Robles Basin through work for the County, City, and agricultural interests. We bring unequaled knowledge of the basin and proven working relationships with agencies and stakeholders. We also bring comprehensive knowledge of SGMA requirements and a demonstrated commitment to work with the Paso Robles Basin GSAs to develop practical and effective strategies. In addition, our team is actively working with agencies around the state to comply with SGMA, and we are currently working with the California Department of Water Resources on a framework and guidelines for developing water budgets at local and regional levels. We are also actively supporting multiple counties and agencies throughout California in obtaining Groundwater Sustainability grants and developing Groundwater Sustainability Plans.

Our Project Understanding and Approach

Following enactment of SGMA, the Paso Robles Basin GSAs organized themselves, crafted an agreement for mutual preparation of a GSP, reached out to stakeholders, and applied for grant funding. The next step is preparation of the GSP, a process that will combine every aspect of SGMA—technical, funding, governance, and stakeholder involvement—to achieve sustainable groundwater management in the most cost-effective and practical manner possible. This will require close partnership among the GSAs, consultant team, and stakeholders that builds on shared knowledge, mutual trust, and commitment to an effective GSP. Our approach is based on three principles:

Strong relationships and trust are key to consensus. Our team members have developed trust and working relationships across the broad range of basin stakeholders, and we are ready to assist the GSAs in reaching consensus-based solutions.

The intent of this GSP is effective and adaptive local management. Our team will develop a GSP that meets the Paso Robles Basin GSAs' needs first and foremost while complying with SGMA.

Projects and management actions are high priority. Our team will build upon the common ground that has been established through previous groundwater studies and planning efforts, and the shared resolve to move forward with practical and effective projects and management actions.

We are highly focused on groundwater management strategies that minimize economic impacts and costs to stakeholders. We have developed a streamlined approach to meeting DWR requirements using available data and focusing on economically feasible management alternatives early in development of the GSP. This will help save money and create more economic certainty in the future.

The Woodard & Curran team's approach will feature transparent stakeholder outreach, clear communication, and an organized method for receiving input on a robust technical program. Details of how we've tailored our approach to meet your needs are included in Section 2 of this proposal. Our team is ready to lead this project; we know the model, we know the basin, and we understand the perspectives of the various stakeholders involved. Our team has come together in the interest of providing you with the combination of expertise needed to develop a "fit-for-purpose" GSP.

We confirm that the proposal herein will be valid for 90 days. Thank you for the opportunity to submit our qualifications and approach to you. If you have any questions, please contact me on my cell at (925) 858-1340 or by email at lmelton@woodardcurran.com. In addition, Leslie can be reached at (916) 224-3316 or by email at ldumas@woodardcurran.com.

Sincerely,
WOODARD & CURRAN, INC.



Lyndel Melton, P.E., D.WRE
Principal-in-Charge



Leslie Dumas, P.E., D.WRE
Project Manager

Section Two Approach



Proposal for
Paso Robles Sub-Basin
Groundwater Sustainability Plan Development



Following enactment of the Sustainable Groundwater Management Act (SGMA), the Paso Robles Basin Groundwater Sustainability Agencies (GSAs) organized themselves, crafted an agreement for mutual preparation of a Groundwater Sustainability Plan (GSP), reached out to stakeholders, and applied for grant funding. The next step is preparation of the GSP, a process that will combine every aspect of SGMA—technical, funding, governance, and stakeholder involvement—to achieve sustainable groundwater management in the most cost-effective and practical manner possible. This will require close partnership among the GSAs, consultant team, and stakeholders that builds on shared knowledge, mutual trust, and commitment to an effective GSP.

Our team has a 20 plus year history of working with key stakeholders in the Paso Robles Basin. We bring unequalled knowledge of the basin and proven working relationships with agencies and stakeholders. We also bring comprehensive knowledge of SGMA requirements and a demonstrated commitment to work with the Paso Robles Basin GSAs to develop practical and effective strategies. Our approach is based on three principles:

Strong relationships and trust are key to consensus. The GSAs, recognizing that they are likely to face some difficult decisions, have shown a commitment to a collaborative and transparent process to foster trust and strong working relationships. We share that recognition and commitment; accordingly, our approach will include outreach “early and often,” including numerous public meetings. Moreover, our team members have developed trust and working relationships across the broad range of basin stakeholders, and we can assist the GSAs toward consensus-based solutions with a variety of engagement approaches (e.g., one-on-one meetings, effective communications materials, clear website based communication).

The intent of this GSP is effective and adaptive local management. Our approach will be to develop a GSP that meets the Paso Robles Basin GSAs’ needs first and foremost, complies with GSP regulations so it is approved by DWR, moves forward with a level of detail commensurate with available data and basin issues, takes the long view of adaptive management, and provides what can be called a “fit-for-purpose GSP.” For such a GSP, our team combines local knowledge, working experience with SGMA, and expert specialists.

Projects and management actions are high priority. A solid planning effort is critical, but ultimately, the path to sustainability is through the development and implementation of cost-effective projects and management actions. Our approach will build upon the common ground that has been established through previous groundwater studies and planning efforts, and the shared resolve to move forward with practical and effective projects and management actions. Based on our experience in the Paso Robles Basin and elsewhere, we can identify viable projects (e.g., direct recharge along Huer Huero Creek and in-lieu recharge with recycled water) and management actions (a water allocation framework) for consideration by the GSAs and stakeholders.

OUR STREAMLINED GSP PROCESS



Involve Stakeholders Early and Often

Building strong relationships and trust through ongoing interaction is key to achieving consensus.

Create a Fit-for-Purpose Plan

GSPs do not need to be large or overly detailed to comply with DWR regulations.

Fill In Date Gaps Later

Identify unknowns and address over time, rather than spending funds on collecting data that may not be needed.

Detailed Approach

We've tailored our approach based on our team's experience in the Paso Robles Basin and with GSPs in other basins. The sections that follow highlight key elements of our approach and reflect our ideas on how to refine and supplement the work described in the RFP scope. We do not repeat the scope of work included in the RFP, but incorporate it here by reference. Optional tasks are noted at the end of this section.

We have reviewed the Work Plans in the RFP and the funding application. We will work with the GSAs to reconcile the minor differences in task organization and content between the funding Work Plan and the RFP scope.

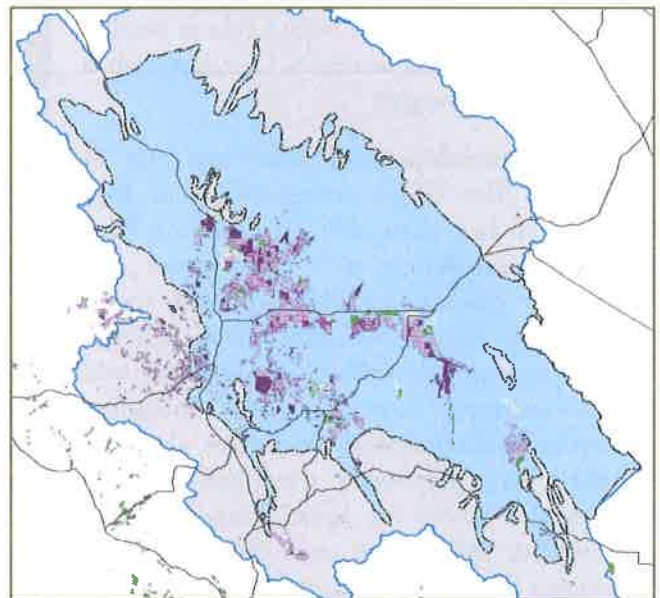
Our approach is to develop a right-sized GSP—compliant and defensible without getting mired in unnecessary detail. As DWR SGMA program manager Trevor Joseph recently said: "Perfection is the enemy of groundwater management."

Compile Data (RFP Task A)

Our team has a firm grasp of the available information. We have much of it compiled and what we lack, we know where and how to get. Hence, this task is mostly updating the existing information. We recognize that the GSP is a planning document, not an exhaustive study. We understand that a GSP is expected to be adaptive.

Our team also brings recognition of data gaps and uncertainties. First, we know that, consistent with adaptive management, data gaps and uncertainties can be addressed later as more time and funds are available and more is known. However, some uncertainties are primary concerns; for example, agricultural water demands, which account for most of the water demand, are not measured, and vary significantly in space and time. Accordingly, we have included Mark Battany from the UC Cooperative Extension in San Luis Obispo on our team. Mark will apply up-to-date local crop water demand information to the water budget and groundwater model so the model clearly and credibly reflects local conditions and practices.

Cropland Expansion from 2011 to 2016



As part of recent work in the Basin, our team already has much of the data needed for this initial task.

Describe Basin Setting (RFP Task D)

This task involves developing the technical foundation of the GSP—basin setting and conditions—and includes key elements required to estimate sustainable yield. Our approach is to use available data, describe the basin setting as context for stakeholder understanding of how the basin works, describe data gaps and uncertainties so stakeholder expectations are reasonable, and identify the key sustainability issues as we move through the GSP process.

Hydrogeologic Conceptual Model

The Hydrogeologic Conceptual Model describes the hydrogeologic framework. We intend to utilize existing graphics (such as cross sections and block diagrams) to the extent possible, providing updates and extension to the Bulletin 118 basin boundaries as needed. As noted in the RFP, a key task is definition of recharge and

Section 2. Approach

discharge areas and areas where local streams are at least seasonally connected to groundwater. Given that these areas potentially include groundwater dependent ecosystems (GDEs), our team includes Devin Best from the Upper Salinas-Las Tablas Resource Conservation District (RCD) to assist in mapping and interpreting GDEs and in determining how best to develop sustainability criteria if GDEs are present. We will also enlist Bryan Bondy, who has been working on a committee with DWR and The Nature Conservancy, to develop the methodology for identifying and evaluating GDE's and applying sustainability criteria.

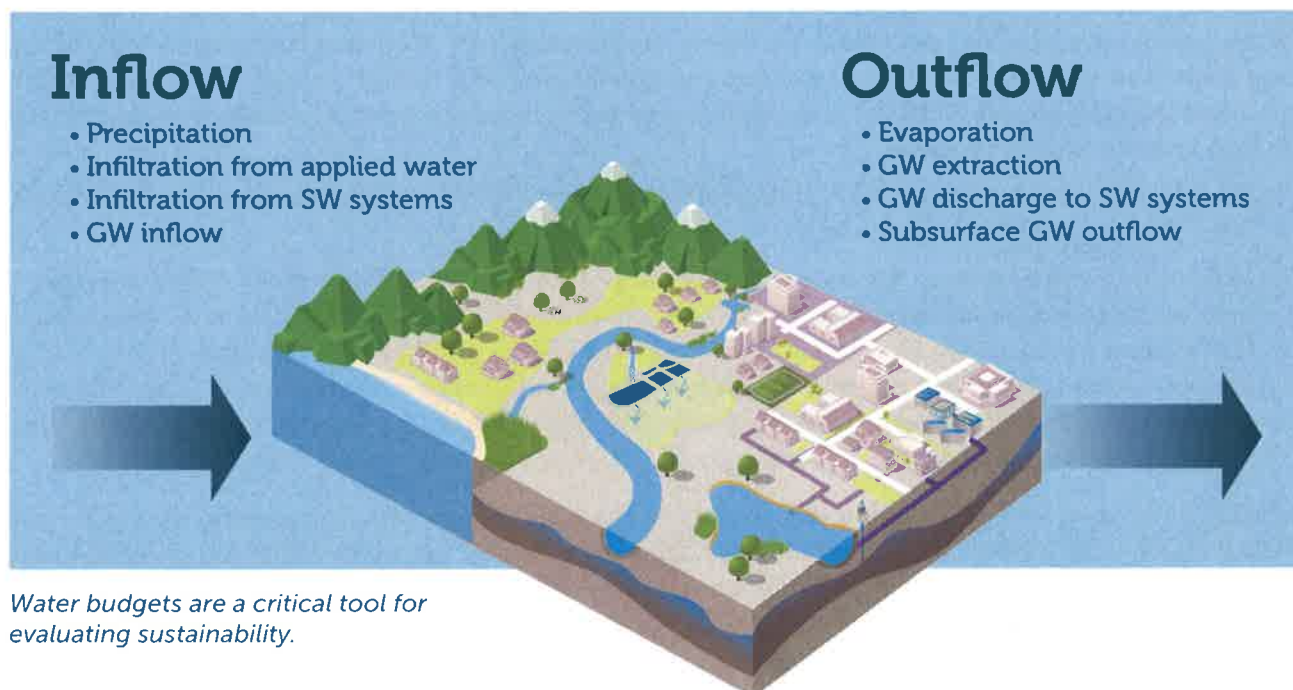
Groundwater Conditions

Our approach is to document the “state of the basin” to provide a common understanding of current conditions and as a first step in identifying undesirable results. While making good use of available data, we will be providing significant updates, for example, with documentation of groundwater level trends. Our team can efficiently complete this task because of our recent analysis of groundwater level trends as part of the County's Groundwater Basins Key Well Index project. This recent project brings additional value by evaluating the aquifer unit being monitored (to ensure that vertical gradients would not be a factor due to varying well depths) and by determining the suitability of existing wells for use in the monitoring program.

This task also includes documentation of groundwater quality, subsidence, and interconnected surface water and groundwater. While utilizing available information, our team will also apply specialized expertise; for example, for water quality, we are knowledgeable of the available data from our experience preparing the Paso Robles Basin Salt and Nutrient Management Plan and we can enlist the expertise of Mark Battany in considering potential salt loading.

Water Budgets

The basin water budgets directly relate to water levels; a long term negative balance leads to declining water levels and is not sustainable. By documenting the magnitudes and locations of basin inflows and outflows, the water budgets reveal opportunities for increasing inflows or decreasing outflows to achieve sustainability. Numerical modeling is essential to the development of the water budget, particularly for estimating the effects of management measures on the water budget.



Water budgets are a critical tool for evaluating sustainability.



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The GSP must include historical, current, and future water budgets. The historical water budget, represented by the existing model calibration period, meets all DWR SGMA requirements. The current water budget will be represented by 2017 land and water use, simulated through 30 years of historical hydrology. The future water budget will be obtained from simulating a required 50-year hydrologic time series with estimated future land and water use conditions. Projections of future values for irrigated acreage, crop types, municipal pumping, rural domestic pumping and wastewater percolation will be estimated from local planning documents in collaboration with stakeholders.

Our team is very familiar with all aspects of the existing model and can quickly and efficiently modify the model as needed, and the model to simulate different hydrologic and pumping conditions, and evaluate various management scenarios. We have included an optional task for further updating and improving the model, described in more detail in the Task E discussion below.

Management Area(s) and Representative Monitoring

As noted in the RFP, the Paso Robles Basin is a single basin under SGMA and the GSAs are sharing the responsibility for sustainability, but groundwater level declines vary throughout the Basin. Technical information and stakeholder input will be considered together in the context of the GSP objectives to decide if more than one management area is useful and defensible. Our team can document groundwater flows and trends that show connectivity (or lack thereof). Moreover, we can anticipate and readily address local concerns; for example, how and why a management area can be defined when groundwater level trends in various wells may differ. We will clearly present data and groundwater modeling results that indicate whether hydrogeologic conditions are locally distinct or whether the basin is relatively homogeneous with local variability in the intensity of pumping. With this common technical understanding, local concerns and opinions can be aired and addressed. Multiple management areas would incur a significant long-term administrative cost. However, that decision ultimately rests with the GSAs.

Prepare Surface Water-Groundwater Flow Model (RFP Task E)

The existing basin numerical model meets SGMA requirements (documented, peer-reviewed, public domain) and could be used as-is for GSP purposes. We recommend and have included in the fee estimate a modest effort to update the groundwater conditions and land use data files to 2017 conditions, but without a model recalibration (which requires significantly more effort). We believe the existing model calibration is adequate since County crop maps show that vineyard acreage expansion and groundwater level decline during 2012-2017 generally continued their prior trends. The GSP grant application requests funding for two model improvements, which we have included as optional tasks:

1. **Model Calibration Update to 2017.** If desired, we can extend the historical calibration period to include 2012-2017 and recalibrate the model.
2. **Refined Recharge Mapping.** The watershed element of the numerical model presently calculates recharge from rainfall and irrigation return flow averaged over sub-watersheds and applies the values to the groundwater flow element of the model. One option is to implement DWR's IWFDM Demand Calculator or publicly available software developed by Todd to simulate changes in recharge at the field scale. These programs concurrently estimate irrigation demand and thus provide greater consistency between pumping and recharge in irrigated settings. Without this optional task, we will use the existing recharge estimation procedure.

An additional issue is a 32-square-mile corner of the basin located outside the southeast corner of the model grid. Only 2 square miles is cropland, and the area has no major streams. We have included as part of the optional modeling task expanding the model grid to include that area. Without the optional task, we will estimate the water balance of that area based on similar areas within the model and add the result to the modeled basin-wide water balance. The Stream-Flow Routing module in the numerical model meets the requirement for simulating surface water-groundwater interactions and impacts on GDEs.

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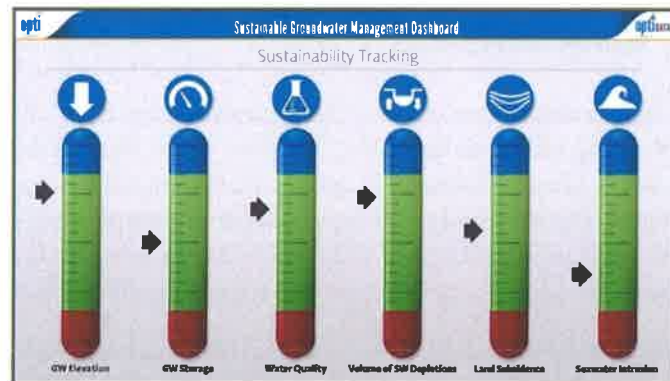
We are familiar with recent applications of the model that can help guide the stakeholder discussion toward relatively cost-effective basin management measures. In the Supplemental Supply Options Study, simulations of various amounts and locations of direct and in-lieu recharge consistently found that in-lieu recharge in the central part of the basin was most effective for stabilizing long-term water-level trends. By building on this recent work, we can avoid reinventing the wheel and move the GSP process more quickly toward a plan that achieves sustainability efficiently. In addition to the types of measures tested in the prior study, stakeholder discussions will likely produce other ideas for balancing the future water budget (e.g., agricultural zoning or micro-scale catchments to increase rainfall infiltration). The model and its pre-processors are capable of simulating these implementation measures.

Finally, the model will be used to improve the groundwater monitoring program by indicating locations where additional deep or shallow wells might need to be monitored to verify projected changes in water levels, groundwater storage, and impacts on shallow wells and GDEs.

Identify Sustainable Management Criteria (RFP Task F)

Our approach views development of a GSP for the Paso Roble Basin as a process directed to identifying realistic and supportable projects and management actions to achieve sustainability. We recognize that this process requires goals, guidelines, milestones, and objectives. Identification of undesirable results will show where we do not want to go and definition of thresholds, milestones, and objectives will demarcate the path forward and demonstrate progress. The first step of defining sustainable management criteria is definition of the sustainability goal, which we will develop in conjunction with the local GSAs, the beneficial users of groundwater, and other stakeholders. While recognizing the possibility of subsequent revision, we anticipate that the community, which has years of experience with groundwater management, can define a sustainability goal to guide the processor development of a GSP.

Throughout every step of the GSP process, we will be mindful of the sustainability criteria. For example, in defining the basin setting and groundwater conditions, we will work with the GSAs and stakeholders to identify undesirable results (deemed significant and unreasonable) with specificity on when, where, and why certain conditions occur. This will consider current beneficial uses of groundwater and surface water in the basin and the potential effects on land use and property interests. The numerical model will be applied to simulate current operating conditions, with projection 50 years into the future to evaluate changes and determine if current basin management meets sustainability criteria.



Measurable objectives will be used to monitor each sustainability indicator (except seawater intrusion).

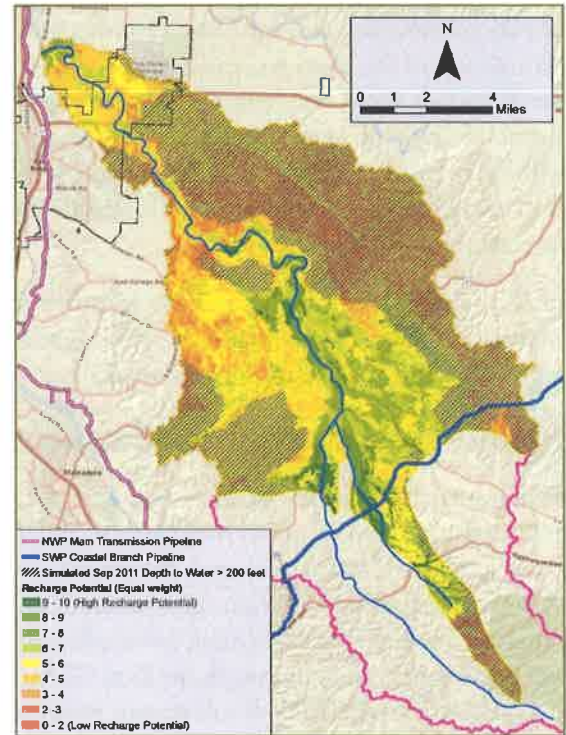
With identification of undesirable results, we will work with the GSAs and stakeholders to establish quantitative minimum thresholds and measurable objectives at multiple representative monitoring sites, allowing monitoring of undesirable results for the entire basin and providing an effective operating range for applicable sustainability indicators.

Lastly, as we progress through development of the GSP, including identification and evaluation of management actions and projects, we will develop five-year milestones for each measurable objective. These reveal the progress of the GSP—whether objectives are being reached, maintained, or need to be adjusted—and if not met, indicate when certain management actions are to be implemented. The definition of sustainability criteria will be an iterative process, with the criteria coalescing with management actions and projects in the GSP implementation plan.

Develop and Analyze Projects and Management Actions (RFP Task I)

The GSP will present a list of prioritized projects and management actions to help achieve the sustainability goal. For each project and management action, the expected benefit will be described along with how each benefit will be evaluated and accomplished. In addition, each action will be outlined in terms of circumstances for implementation, public noticing, overdraft, permitting and regulatory process, legal authority required, cost estimate, management of groundwater extraction and recharge, timetable for initiation and completion, and the accrual of expected benefits. Key aspects of our approach include:

- ▶ Building on our familiarity with previous work to further develop the most practical and implementable options. For example, we will utilize work completed in the Supply Options Study, which built on work by the Blue Ribbon Panel, and recent recharge studies along Huer Huero Creek.
- ▶ Relying on our team's expert specialists in topics such as economics, funding, and financing to define projects for decision making and implementation.
- ▶ Focusing on using available data and relying on monitoring, reporting, and data management to support future management actions.



Our work on the Huer Huero Creek recharge feasibility study with Basin stakeholders identified the potential for multiple recharge projects in the watershed.

High potential project and management actions for the Paso Basin have been recognized through previous planning efforts in the basin. The Paso Basin Blue Ribbon Committee, which included many of today's GSA leaders, identified a range of options from demand management to use of supplemental water. The Supplemental Supply Options Study, which included several members of our team, incorporated these concepts into groundwater model runs and estimated yield and costs but stopped short of stakeholder buy-in. These provide a good starting point for project and management action identification for the GSP process.

We propose evaluating options using an integrated approach that accounts for changes in water supplies and potential economic benefits to identify the most cost-effective set of solutions. Our team partner, ERA Economics, specializes in quantitative economic analyses of agricultural water supply and demand management actions. They will provide valuable input into the selection of the most appropriate suite of management strategies and project scenarios.

Demand Management

Demand management is one of the alternatives to be considered and it can be controversial. Our team has developed a Water Accounting Framework for consideration by the GSAs as one tool that could assist in implementing demand management. A framework would allocate shares of water to all users based on estimated water use and then rely on a set of rules developed by stakeholders to allocate those shares in a manner that achieves sustainability goals. Development of a framework through a stakeholder process will provide

Section 2. Approach

transparency, fairness, and business certainty. This framework is intended to be adaptive to changing conditions and relies on governing rules established by basin stakeholders. A key feature of the framework is an allocation scheme that is responsive to the various types of users in the basin and balances preservation of water rights and management of the common resource. Objectives of the water accounting framework include:

- ▶ Maintain local control of groundwater management
- ▶ Provide mechanisms to equitably allocate native and supplemental water (e.g., credits)
- ▶ Encourage and incentivize water use efficiency
- ▶ Provide for reasonable certainty, consistency, and transparency; minimize hardships
- ▶ Respect groundwater rights; Provide equitable access to water for domestic uses
- ▶ Build trust through open exchange of information and public input
- ▶ Keep the program simple and adaptive

This concept is a starting point for demand management discussions and we expect that the basin stakeholders will ultimately decide how demand management should be handled.

Outreach and Stakeholder Involvement (RFP Task K)

A major challenge for a successful GSP is providing equitably for local interests while promoting basin-wide cooperation. Groundwater level declines in the Paso Robles Basin are mostly localized and have adversely affected the yield and reliability of relatively shallow private wells, including many that represent the sole source of drinking water supply for their owners. In addition, the Paso Robles Basin is large, with varied and dispersed groundwater users and many local perspectives. Hence a variety of stakeholders (rural residential and commercial, urban, environmental, and agricultural operations—vineyards, ranches, small and large) will need to come to consensus on key GSP components, such as management criteria and growth projections. Recognizing the challenges in promoting collaboration among many interests, our approach includes:

- ▶ Working closely with the GSAs to provide outreach early and often and throughout the process
- ▶ Emphasizing facts using clear graphics and data visualization while acknowledging data gaps and uncertainty
- ▶ Presenting a basin-wide, common-ground approach to the sustainable yield while addressing local variation across the basin

An early outreach effort will minimize late entrants and potential surprises as the GSP is developed. By emphasizing facts using clear graphics, we will focus initial workshops on establishing a common understanding of basin conditions. We will also acknowledge the limitations and uncertainties associated with basin information, and the intent to proceed based on the best available data while incorporating future monitoring and adaptive management programs in the planning process. We

know that some stakeholders may resist the GSP planning process, but we also recognize (and have witnessed) the overall community resolve to achieve sustainability. If needed, we can provide a professional facilitator with significant agricultural / urban groundwater experience.



Our relationships with many basin stakeholders have built trust that will help promote consensus.

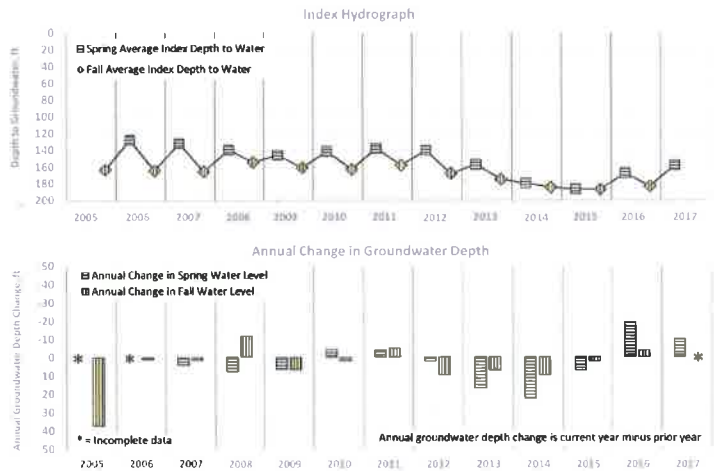
We will aim to provide basin stakeholders with a clear, shared understanding of how the basin works, the uncertainties, and the key sustainability issues as we move through the planning process.

Establish Monitoring Networks and Protocols (RFP Task G)

The County has maintained its groundwater monitoring program for decades; this will be the basis of the GSP monitoring program maintained by the GSAs. Our team is familiar with the County's program from years of application, including a recent analysis of groundwater level trends as part of the County's Groundwater Basins Key Well Index project.

Because several sustainability indicators require establishment of specific thresholds at specific locations, we envision that many existing monitoring wells will be identified for use. Representative monitoring and use of groundwater levels will likely be used to link the monitoring closely to sustainability indicators. Additional monitoring wells may be needed in certain locations; however, we believe this may be deferred to a future date after the GSP is submitted and approved.

Paso Robles Basin — Index Area A



Our team is familiar with the Basin's existing groundwater monitoring well network and has recently analyzed water level trends as part of the County key well index project.

Organize Data Management System (RFP Task H)

A data management system (DMS) will be required to store and report information relevant to the development or implementation of the GSP and monitoring of the basin. The DMS will be key to accessing the volume of data generated for GSP preparation and updates, demonstrating progress toward basin sustainability, and communicating to stakeholders and the State. We will identify and assess potential DMS technologies considering cost, ease of use, and interactivity with other planning and monitoring efforts in the basin. For planning purposes, our team can offer use of our OptiData platform, a DMS developed and maintained by Woodard & Curran on similar projects. This DMS, developed to handle the variety of data expected in a GSP, can export data in a range of formats for subsequent import into a County-wide DMS, should that be developed, and to the State's online reporting system (also yet to be developed). OptiData will allow the GSAs and participating entities to maintain their own data sets, including setting specific permission levels for data access by outside parties. OptiData can also allow tracking of critical parameters and development of customized reports. Woodard & Curran could host the DMS platform, thereby ensuring that the OptiData system is current with any future updates.



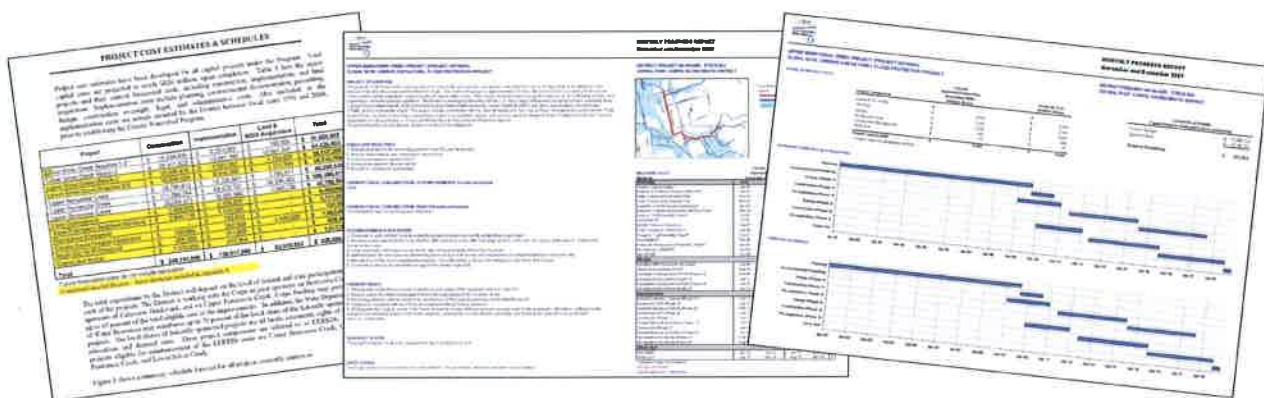
We have successfully developed simple and cost-effective databases for groundwater monitoring and reporting.

Project Management (RFP Task M)

Our approach provides a strong, tiered management structure. Our project manager, Leslie Dumas, will lead the GSP process, ensuring that the work is responsive, and completed on schedule and within budget. A proven manager, she will serve as first point of contact, coordinating project management activities with the GSAs, through a combination of conference calls and in-person meetings. To assist her, we propose two Task Managers, Paul Sorensen and Rob Morrow (who are both local to the basin), to help manage technical elements of the project and assist with GSA workshops and meetings (along with other key staff). Our tiered approach provides not only strong management, but a depth of experience so that people doing technical work, who are familiar with local issues, will be interacting directly with GSAs and stakeholders, and responding to the concerns and ideas of the stakeholders.

Ms. Dumas and her team recognize the challenges of coordination among up to six GSAs, along with SGMA-required outreach activities. Accordingly, she offers a Project Management Plan that provides systems for data management and outreach that are easy to access and use, and open and transparent while maintaining appropriate confidentiality required of some data. Additionally, the planned approach to schedule and budget control will include:

- ▶ Developing a 100-day action plan that will define critical initial activities that will establish and confirm the direction of the program.
- ▶ Coordinating progress meetings on a bi-weekly or monthly basis, as jointly agreed upon by the GSAs.
- ▶ Preparing monthly progress reports that document project activities, progress, identified issues and associated strategies to address each issue, and overall schedule and budget status.
- ▶ Preparing quarterly progress reports for DWR should SGWP grant funding be awarded.



Our approach includes providing a dedicated project controls engineer and tracking and reporting cost and schedule on at least a monthly basis.

Optional Tasks

This section lists several optional tasks that the GSAs may consider. Each is described here briefly due to space constraints, however additional details about the tasks can be provided upon request.

- ▶ **Optional Task 1 - Model Update:** Three optional model updates were described in Prepare Surface Water-Groundwater Flow Model (Task E) discussion above: 1) Extend the calibration period to 2017; 2) Update the recharge terms; and 3) Extend the southeast corner of the model grid.
- ▶ **Optional Task 2 – Meeting Facilitation:** While members of the project team can and will provide meeting facilitation services in addition to providing technical support, a third-party independent facilitator has been added to the project team as an option for use if desired.
- ▶ **Optional Task 3 - Funding Administration:** If the GSAs decide not to take on funding administration as described in Task 1 of the GSP grant application, we can provide this service.
- ▶ **Optional Task 4 - Funding Applications:** We can track and identify potential outside funding and prepare up to two proposals for specific funding programs yet to be identified.
- ▶ **Optional Task 5 - Pilot Automated Groundwater Level Monitoring Program:** We propose to deploy up to 10 additional Wellntel devices at well sites that are part of the basin-wide monitoring program and have been designated as Key Wells by the County as a pilot program.

Section Three Qualifications



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Paso Robles Sub-Basin
Groundwater Sustainability Plan Development

Woodard & Curran, Inc. (formerly RMC Water & Environment) has in-depth experience in groundwater management, watershed management, and integrated regional water management, as well as grant funding and administration. Accordingly, we are ideally suited to support the Paso Robles GSAs in successful development of a Groundwater Sustainability Plan (GSP) for the Paso Robles Basin. Our team includes GSI Water Solutions and Todd Groundwater to bring extensive groundwater expertise, considerable knowledge of the basin hydrogeology, and established relationships with many basin stakeholders.

As RMC, we were founded in 1998 solely focused on water resources in California. In November 2016, RMC became a wholly owned subsidiary of Woodard & Curran—an integrated engineering, science, and operations company, founded in 1979. Our combined company has a staff of approximately 1,000 and brings additional resources our California-based team can access. We are now even better-positioned to provide superior technical project analysis and prioritization techniques, and to help translate technical project information into grant-ready cost and benefit analyses which are critical to developing a reasonable and applicable financing plan for GSP development and implementation. In addition, we are a key technical consultant to the Department of Water Resources (DWR) and its Sustainable Groundwater Management Group, and are one of, if not their preferred consultant for water budget and integrated ground and surface water modeling.

Office Location

3940 Broad Street, #7194,
San Luis Obispo, CA 93401

Number of employees

1,000

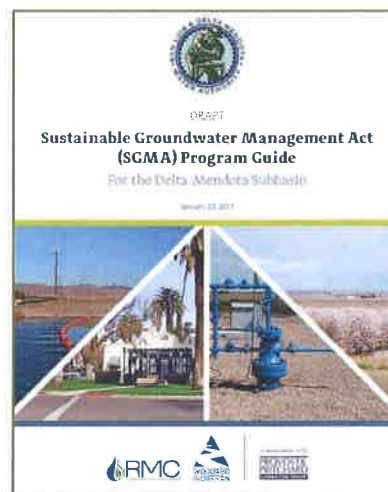
Years in business

38 years; 19 years in California

Expertise in SGMA Compliance

Woodard & Curran staff have been actively involved in the development of Groundwater Management Plans since the passage of the Groundwater Management Act in 1992, and we are actively working with agencies around the State to comply with new guidelines created by the passage of the Sustainable Groundwater Management Act (SGMA) in 2014. Woodard & Curran is currently supporting DWR in the development of a framework and guidelines for developing water budgets at local and regional levels to support SGMA implementation. We are also actively supporting multiple counties and agencies, including San Luis Obispo County, the City of Oceanside, Yuba County, Merced County, West Turlock Subbasin GSA, the Stanislaus and Tuolumne Rivers Groundwater Basin Association, the San Luis & Delta-Mendota Water Authority, Sacramento Central Groundwater Authority, Westside Basin agencies, and other agencies throughout California as they move towards SGMA implementation, and more specifically, obtaining Sustainable Groundwater Planning grants and developing robust, SGMA-compliant Groundwater Sustainability Plans.

Our team's proposed project manager, Leslie Dumas, continues to track SGMA implementation very closely in her role as our company's SGMA expert. She is currently leading SGMA-related efforts in the Delta-Mendota Subbasin, and is supporting SGMA work in several other basins in California, including the Merced, Turlock and Modesto Subbasins. In addition, we are continuing to support DWR in its implementation of SGMA, providing our clients insights from both the DWR and local agency perspective.



Woodard & Curran's proposed team brings hands-on expertise in groundwater planning and knowledge of SGMA regulations.

Sustainable Groundwater Management Planning

Our team members have been involved in many groundwater investigative and management programs in San Luis Obispo County and California over the past few decades, including the preparation of numerous Groundwater Management Plans (GWMPs) and a state-wide analysis of the various strengths of existing GWMPs on behalf of DWR. This work has provided us with significant experience in hydrogeologic characterization and insights into the relative strengths and weaknesses of different groundwater management plan components. Through this experience, we have gained significant knowledge of the means and methods by which groundwater basins can be managed, and developed recommendations for improving the effectiveness of groundwater planning to support sustainable management.

Integrated Water Resources Planning

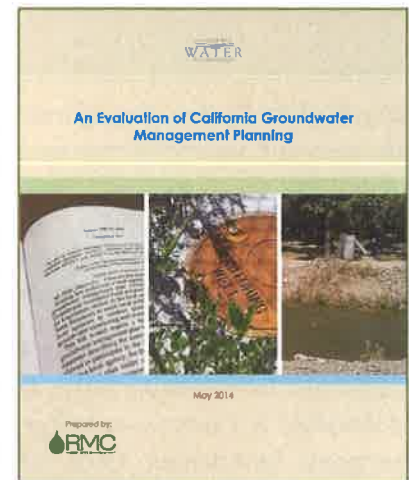
Our team members have conceptualized, developed, and implemented sustainable basin activities, including direct and in-lieu recharge, imported and surface water, recycled water, and demand management, to support California agencies establish long-term sustainable groundwater management practices. Woodard & Curran also has significant experience applying the adopted State recycled water regulations for non-potable reuse and groundwater augmentation projects.

Groundwater Modeling and Basin Condition Assessment

Central to all basin management efforts—including SGMA—are water budget analyses to which our team of hydrogeologists brings decades of experience from a variety of California groundwater basins, including the Paso Robles Groundwater Basin. Our team members also provide expertise with development and application of numerical modeling tools (most notably MODFLOW) for quantification of various scenarios for water and land use to achieve sustainability.

In addition, our team (Woodard & Curran, Todd, GSI) brings extensive experience with managed aquifer recharge (MAR) as an essential tool for achieving groundwater sustainability. We have developed a depth of experience with all aspects of MAR ranging from initial planning, feasibility studies, and field investigations to project implementation and optimization (often with numerical modeling). Recharge projects involve numerous water sources (local surface water, stormwater, imported water, and recycled water), and recharge methods (in-stream channels and canals, spreading basins, vadose zone wells, and deep injection wells). Recent MAR work ranges across many basins, including Paso Robles, Mojave River, Morongo, Coachella, Yucaipa, San Jacinto, Seaside, Llagas, Santa Clara, Modesto, Los Angeles Central Basin, Upper Santa Clara River Basin, Turlock, and Kern basins.

Our team has completed basin condition assessment projects throughout California evaluating the hydrology, interaction of surface water and groundwater, and impacts of historical and future development on surface water and groundwater resources, in addition to developing and directly applying the numerical flow model developed specifically for the Paso Robles Basin.

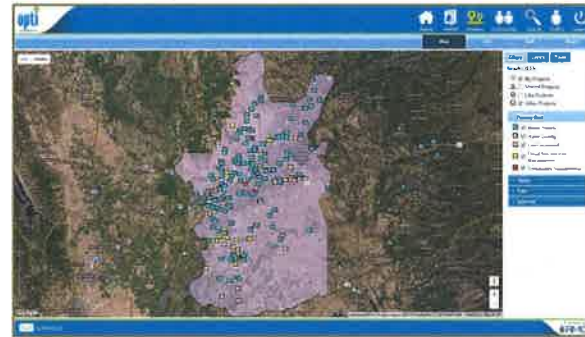


As part of the analysis entitled “An Evaluation of California Groundwater Management Planning”, prepared for the California Water Foundation, we reviewed all publicly available Groundwater Management Plans (GWMPs), including basin management objectives, governance and outreach, and monitoring programs, providing insights into factors that facilitated a successful groundwater management plan.

Section 3. Qualifications

Public Outreach and Facilitation of Multi-Agency Processes

Woodard & Curran's team includes key individuals experienced with stakeholder outreach and communications and meeting facilitation. Our services are always tailored to meet the unique needs of our clients, and we often facilitate integration workshops and other mechanisms to bring proponents together, gain consensus, and look for partnerships and opportunities for articulating multiple benefits. Our project manager and key task managers are skilled in presentation of complex information and policy options to stakeholders and our optional subconsultant, Charles Gardiner (Catalyst), specializes in bringing people together to get programs approved and done.



Woodard & Curran has developed proven web-based data management tools that help regional stakeholders with project information sharing, collaboration, tracking, and reporting.

Technical Specialists

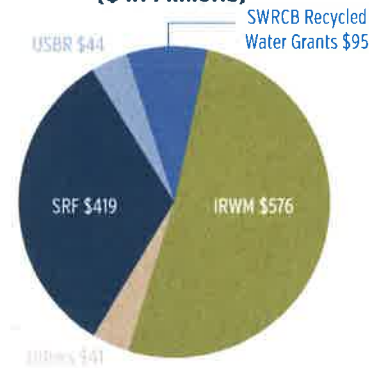
Woodard & Curran, along with our subconsultants, provide a team of hydrologists, agronomists, economists, and groundwater professionals with expertise in the interrelationships between agricultural water use and related urban and environmental water uses. ERA Economics is included on our team to support economic analyses. ERA performs quantitative analysis for project development and policy support. ERA specializes in agricultural and environmental economics, and applies economic theory and econometrics to comprehensive data, using the most current modeling methods and software.

Team Advisor Mark Battany is a Viticulture Farm Scientist with the University of California Cooperative Extension and Devin Best is Executive Director for Upper Salinas – Las Tablas Resource Conservation District's watershed restoration and conservation programs covering northern San Luis Obispo County. Mark has been conducting research on agricultural water use for many years and is a foremost expert on vineyard water use in the County. He will assist our team with reviewing crop water use and efficiency values used in the model and water budget calculations. Devin Best will assist the team with identifying and prioritizing groundwater dependent ecosystems.

Successful Acquisition and Management of Grant Funding

Woodard & Curran's in-depth understanding of project financing (including grant and loan funding processes), water resources and engineering expertise, innovative approaches to project development, ability to meet tight grant application deadlines, and ability to deliver rational solutions to water resource challenges has allowed our company to secure over \$1.1 billion in grants and loans (approximately \$663 million of which was grants only) for California agencies and municipalities of wastewater, water resource development, stormwater, recycled water, and watershed management projects over the last 14 years. Our experience in the applied finances of water with public agencies, including the oversight of Proposition 218 processes and preparation of Engineer's Reports, has provided us with the unique experience of buying and selling water as well as navigating the hurdles in moving that water throughout the State and the necessary expertise to help our clients make projects happen.

**Total Grants and Loans
(\$ in Millions)**



RMC's success with grant funding is unparalleled throughout the state.

Relevant Team Experience

Below is a list of previous projects in the Paso Basin that included our team members followed by a list of projects and descriptions of specific experience that the Woodard & Curran team members have had with SGMA or related efforts in the last five years, demonstrating successful resolution of complicated regulatory, technical, groundwater sustainability, funding, or stakeholder related matters.

Relevant Basin Experience Completed by Our Team:

1. Paso Robles Groundwater Basin Model Update, County (2012-2016) (Key Team Members: Iris Priestaf, Edwin Lin, Gus Yates, Paul Sorensen*)
2. Paso Robles Recycled Water Distribution System, City (2016-Present) (Rob Morrow, Leslie Dumas, Edwin Lin, Iris Priestaf)
3. Paso Robles Groundwater Basin Supply Options Study, County (2015-2017) (Rob Morrow, Leslie Dumas)
4. Huer Huero Creek Recharge Feasibility Study, County (2017) (Iris Priestaf, Edwin Lin, Rob Morrow)
5. Key Well Index Project, San Luis Obispo County (2017) (Paul Sorensen, Jeff Barry)
6. Paso Robles Groundwater Basin SGMA Support, City (2017) (Iris Priestaf, Gus Yates, Edwin Lin)
7. Atascadero Groundwater Basin Boundary Modification, Templeton CSD, Atascadero Mutual Water Company (2016) (Paul Sorensen, Jeff Barry)
8. Paso Robles Groundwater Basin Salt and Nutrient Management Plan, City (2013-2015) (Leslie Dumas, Paul Sorensen, Iris Priestaf)
9. Data Management Projects, County (2015-present) (Edwin Lin)
10. Agricultural Water Offset Program, Paso Robles Groundwater Basin, US-LT RCD, County (2014) (Jeff Barry)
11. Paso Robles Basin Groundwater Management Plan, County (2011) (Paul Sorensen*)
12. Paso Robles Groundwater Basin Study Phase 1 (2002) and Phase 2 (2005), County (Paul Sorensen*)
13. Water Balance Peer Review (2010), City (Gus Yates)
14. Nacimiento Recharge and Recovery Feasibility Project, Templeton Community Services District (2009) (Paul Sorensen)
15. Paso Robles Groundwater Subbasin Water Banking Feasibility Study, San Luis Obispo County (2008) (Paul Sorensen*)
16. Paso Robles Basin Update Studies (2007-2009), County and City (Iris Priestaf, Edwin Lin)
17. Water Resources Technical Support (1999-2017), City (Iris Priestaf, Gus Yates)

* *Fugro project performed by current GSI staff*

Section 3. Qualifications

PROJECT NAME	RELEVANT PROJECT ELEMENTS						
	SGMA	Hydrogeology	Modeling / Water Budget	Sustainability Analysis	Project Development	Data Management	Stakeholder Outreach
Projects in Section 3 - Qualifications							
Delta Mendota Subbasin SGMA Program Guide and GSP Development	X	X	X	X	X	X	X
Turlock SGMA Planning Document	X	X	X	X	X	X	X
Water Budget Framework Project	X			X			
Merced Subbasin Groundwater Management Services	X	X	X				
Atascadero Groundwater Basin Boundary Modification	X	X				X	X
SLO Valley (Edna) Basin Characterization & Planning Activities	X	X				X	
San Benito County Water District GW Management & SGMA Support	X	X	X	X	X	X	X
Long-Term Supplemental Water Supply Alternatives for Santa Barbara County					X	X	X
Additional Projects							
SGMA/GSA/GSP Support for Multiple Agencies*	X	X	X	X	X	X	X
Statewide Groundwater Management Plans Review and Assessment, California Water Foundation		X	X	X	X		X
Groundwater Sustainability Evaluation in Kings-Tulare Lake Regions, California Water Foundation	X	X	X	X			X
San Joaquin Grant County Funding and SGMA Readiness	X	X	X	X	X	X	X
Santa Maria Groundwater Basin Fringe Area Characterization	X	X	X			X	X
San Luis Obispo Valley Basin Characterization	X	X	X			X	X
Los Posas Basin Pumping Allocation Plan	X	X	X	X	X		X
Las Posas Basin SGMA Prioritization Re-evaluation Project	X	X					
SLO County SGMA GW Monitoring Data Gaps Evaluation	X	X				X	
Goleta Basin GW Management Plan and GW Model Update	X	X	X			X	
Eastern MWD Regional Groundwater Model Update		X	X	X		X	X
North Valley Regional Recycled Water Project					X		X

* Fox Canyon GMA, Yuima MWD, Upper Ventura River GSA, Las Posas Valley Users Group, Oxnard and Pleasant Valley Basins Landowners Group, Piru and Fillmore Basins Landowners Group, City of San Diego, Santa Clara Valley GSA, and Kaweah Delta GSA.

Delta Mendota Subbasin SGMA Program Guide and GSP Development

Woodard & Curran developed a program guide for the Authority to serve as a tool for identifying management resources required to prepare a compliant GSP for the Delta-Mendota Subbasin by the January 31, 2020 deadline. The program guide informs stakeholders of the information required to meet SGMA's statutory requirements and deadlines; describes the extensive requirements of SGMA, GSP regulations and Best Management Practices; outlines a reasonable path forward for GSA's within the SLDWMA to meet the GSP deadline; and provides an estimate of the anticipated costs and schedule associated with GSP development for planning purposes. This Program Guide informed the Sustainable Groundwater Planning Grant application we prepared for the Delta-Mendota Subbasin GSAs.



Dates: December 2016 – March 2017
Client: San Luis & Delta-Mendota Water Authority
Key Team Members: Leslie Dumas, Lyndel Melton

Turlock SGMA Planning Document

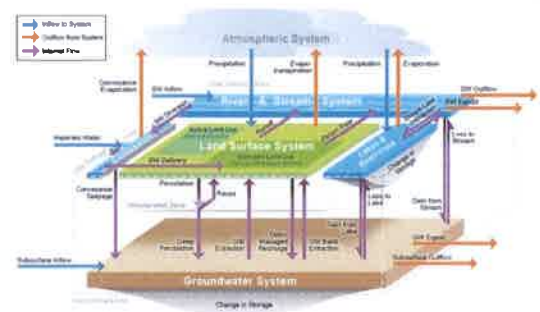
Woodard & Curran recently supported a larger team, led by Todd Groundwater, in preparing a planning document for development of a GSP for the GSAs in the Turlock Groundwater Subbasin. We were tasked with identifying a data management system for data collection, analysis and management, and outlining modeling requirement for development of a basin-wide water budget. Woodard & Curran also prepared the Sustainable Groundwater Program (SGWP) grant application for both GSAs representing the subbasin.



Dates: February 2017 - Present
Client: Turlock Groundwater Basin Authority
Key Team Members: Leslie Dumas, Ali Taghavi

Water Budget Framework Project

DWR is developing a watershed-based water budget framework and basin water reliability maps for groundwater basins and overlying watersheds to support the implementation of SGMA. Woodard & Curran is assisting DWR in preparing the water budget framework and has completed the Tulare Lake Hydrologic Region Pilot Study. Our technical work helped resolve the more than three million acre-foot difference in water budget estimates between C2VSim and CalSIMETAW. As continuation of the project, Woodard & Curran is now evaluating the consistency in water budget estimates in the Central Coast Hydrologic Region between CWP Water Portfolio method and existing local MODFLOW models, the USGS basin characterization model, and other reported estimates.

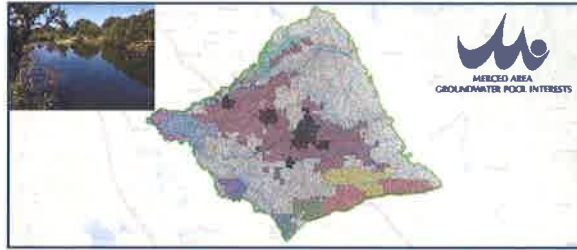


Dates: April 2016 – Present
Client: California Department of Water Resources
Key Team Members: Leslie Dumas, Lyndel Melton, Ali Taghavi

Section 3. Qualifications

Merced Subbasin Groundwater Management Services

Woodard & Curran has been working with the Merced Area Groundwater Pools Interest (MAGPI) in development of various plan and projects, including the state-of-the-art Merced Water Resources Model that will be the primary analytical tool for evaluating groundwater sustainability conditions, developing a groundwater sustainability plan, and implementing the County's groundwater ordinance. We also completed the Merced Region Integrated Regional Water Management Plan and the Merced County Groundwater Ordinance, which included conducting extensive geologic and hydrogeologic investigations. Our team is currently working with the County and other stakeholders to a develop preliminary workplan outline for the GSP development.



Dates: January 2014 - Present

Client: Merced Irrigation District and County of Merced

Key Team Members: Leslie Dumas, Ali Taghavi

Atascadero Groundwater Basin Boundary Modification

On behalf of Atascadero MWC and Templeton CSD, GSI provided expert witness services and key technical analysis of a detailed geologic and hydrogeologic investigation to formally define the boundaries of a groundwater basin. GSI completed extensive geologic and hydrogeologic mapping and analysis, well log review, key well identification, and more than 20 detailed geologic cross sections, and prepared long-term water level hydrographs. Using GIS applications, they prepared a technical report and related maps, cross sections, and hydrographs for trial presentation. The work was expanded to submit a basin boundary modification request to DWR to formally modify and redefine the DWR Bulletin 118 basin boundary. In the Fall of 2016, DWR formally recognized a new Atascadero Groundwater Basin as a separate and distinct basin from the Paso Robles Groundwater Basin, a decision that will give the Atascadero MWC, the Templeton CSD, and other basin stakeholders the ability to successfully manage their groundwater resources within a definable boundary over which they have control. The approval of the modification of the Paso Robles Groundwater Basin to form the Atascadero Groundwater Basin was one of the few scientific modifications approved by DWR.



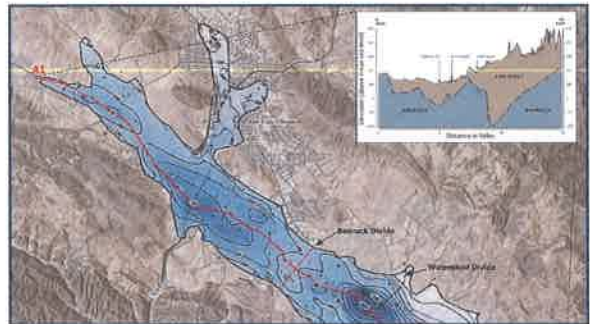
Dates: October 2015 – September 2016

Client: Atascadero Mutual Water Company and Templeton Community Services District

Key Team Members: Paul Sorensen, Jeff Barry

San Luis Obispo Valley (Edna) Groundwater Basin Characterization and Planning Activities

GSI is conducting a basin characterization that will provide a foundation for future SGMA efforts by the County and local stakeholders, as well as serve as the basis for development of a groundwater model. The work effort includes compilation of available hydrogeologic data and developing a comprehensive database, analysis of geologic cross sections, aquifer tests, streamflow infiltration, enhanced recharge areas, and monitoring well installation.



Dates: December 2016 - Present
Client: San Luis Obispo County Public Works
Key Team Members: Paul Sorensen

Groundwater Management and SGMA Support, San Benito County

Todd Groundwater provides regular assistance for and updates on groundwater management activities to the San Benito County Water District (SBCWD), focused on SGMA since 2014. Todd Groundwater provided briefings on SGMA as part of the 2014, 2015, and 2016 Annual Reports. Beginning in August 2016, Todd Groundwater has provided specific SGMA assistance, including technical support for SBCWD to become the GSA for the basin, assistance with outreach, application for grant funding and planning for GSP preparation, and evaluation of basin boundaries (with an upcoming request for modification).



Dates: January 2014 – November 2017
Client: San Benito County Water District
Key Team Members: Iris Priestaf, Gus Yates

Long-Term Supplemental Water Supply Alternatives for Santa Barbara County

Woodard & Curran managed the development of a comprehensive characterization of potential local, regional, and inter-regional supplemental water supply sources that could be used to meet localized demands within Santa Barbara County. The project involved coordination with over 40 stakeholders responsible for the management of water supply in the county to examine both individual supply options as well as identify larger-scale regional programs that would leverage existing imported water infrastructure and supply to better optimize local and potentially new imported supply sources. The most feasible alternatives include recycled water development, groundwater banking, conjunctive use, and stormwater capture projects.



Dates: August 2014 – February 2016
Client: Santa Barbara County
Key Team Members: Lyndel Melton, Dawn Flores, Rob Morrow, Ali Taghavi

Section Four Staffing



Proposal for
Paso Robles Sub-Basin
Groundwater Sustainability Plan Development



SECTION FOUR Staffing

4

As shown in our organization chart, we have created a comprehensive team of experts with the specific experience required for preparing a GSP for Paso Robles Basin. Our proposed project manager, Leslie Dumas, will be supported by a team of experienced, multi-agency water resource planners, funding experts, modelers, public outreach specialists, and groundwater specialists. Summary biographies of our proposed key team members follow, and we have included a table which highlights proposed tasks to be led by each, client reference information, alternate team members, and percentage of availability. Information for each of our subconsultant partners is included at the end of this section.



Leslie Dumas, P.E., D.WRE Project Manager



Leslie has spent her 30-year career providing expertise in hydrogeologic, hydrologic, environmental, and scientific consultation for planning projects throughout the U.S. She has managed a wide

variety of projects, including water resources and stormwater planning, groundwater

investigation, modeling, and environmental permitting. Leslie keeps apprised of SGMA regulations development, has regular communication with DWR and SWRCB staff supporting SGMA implementation, and has given numerous SGMA presentations to water agencies and municipalities. She has also published SGMA guidance documents that are being distributed by DWR and the Water Education Foundation. Leslie recently prepared GSP Planning Guides for the Turlock and Delta-Mendota Groundwater Subbasins, supported the City of Oceanside with guidance and document development for SGMA compliance; and assisted with GSA formation and governance structures and review of the CASGEM monitoring program for the San Luis Rey Valley Groundwater Basin. Leslie also led preparation of a Salt and Nutrient Management Plan for the Paso Robles Basin.

Paul Sorensen, PG, CEG | Basin Setting & Modeling Task Manager



Based in the Paso Robles Basin, Paul has decades of experience working in the Paso Robles Basin, including as the principal author of the 2002 Paso Robles Groundwater Basin Study and 2005 Paso Robles Groundwater Basin Modeling Study, and as a major contributor to the 2011 Groundwater Management Plan. He is an expert in groundwater supply, basin analysis, and water resource management in California, and has been at the forefront of SGMA legislation, helping with early efforts to comply with the new regulations. He was instrumental in leading the successful effort to separate the new Atascadero Groundwater Basin from the Paso Robles Basin—one of the few scientific basin boundary modifications approved by DWR. His technical expertise

Hydrogeology/ Groundwater Conditions Jeff Barry¹	Project Development Edwin Lin²	Data Management Dawn Flores
Modeling/Water Budget Gus Yates²	Water Accounting Framework Bryan Bondy¹	Funding / Grant Options Lindsey Wilcox
Sustainability Analysis Iris Priestaf²	Environmental Analysis Devin Best⁴	Facilitation (Optional) Charles Gardiner⁵
	Economic Analysis Duncan MacEwan³	

- Subconsultants**
1. GSI Water Solutions, Inc.
 2. Todd Groundwater
 3. ERA Economics
 4. Upper Salinas – Las Tablas Resource Conservation District
 5. University of California Cooperative Extension
 6. Catalyst



Section 4. Staffing

includes regional groundwater basin analyses, perennial yield and basin water balance calculations, groundwater supply development, groundwater quality studies, aquifer test analyses, and well design and construction.

Rob Morrow, P.E. | Projects & Implementation Task Manager



Based in San Luis Obispo, Rob's 17 years of experience centers on water resources projects. He has led integrated water resources planning projects throughout California that analyzed water supply and demand portfolios comprised of imported water supplies, surface water, groundwater, recycled water, stormwater, rainwater, graywater, groundwater banking, and in-lieu recharge. Rob recently led development of the Nacimiento Water Project and recycled water options for the Paso Robles Basin Supply Options Study and is currently working with the City of Paso Robles on preliminary design of their recycled water distribution system, which includes meetings with top potential agricultural customers. He has led water resources projects in urban/agricultural interface settings across the State. He also recently authored a white paper on groundwater replenishment with recycled water on agricultural lands for the Water Environment & Reuse Foundation.

Technical Advisors

Lyndel Melton, P.E., D.WRE | Principal-in-Charge

With over 40 years of experience, Lyndel specializes in the planning and implementation of water resources management projects and has significant experience establishing and managing institutional interfaces among regional entities. He has devoted much of his career to overseeing complex water supply planning projects and major capital programs, including grant funding, strategic planning, integrated regional water management planning, and groundwater management. Lyndel is particularly adept at navigating the intersection of agricultural, urban, and environmental objectives.

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

Dr. Taghavi has 30 years of experience developing and applying integrated hydrologic and water resources models; data management systems; and models for collaborative policy making, conflict resolution, conjunctive water management and sustainable groundwater management planning, and water budget analysis. He managed development of a comprehensive water resources model for the Merced Groundwater Basin to support the area in implementation of SGMA, and managed update of Eastern Municipal Water District's MODFLOW-based San Jacinto Groundwater Basin Model.

Mark Battany

Mark currently serves as a farm advisor to the University of California Cooperative Extension in San Luis Obispo. He has conducted applied research programs for the vineyard industry; focusing on increasing awareness of local soil salinity issues, improving vineyard irrigation management tools, effective frost protection practices, and innovative assessments of vineyard microclimate conditions and regional irrigation water use. Mark will review crop water use and efficiency assumptions used in water budgets and groundwater model and will provide important input into water efficiency programs developed by our team.

Support Staff

Jeff Barry, RG (OR) | Hydrogeology/Groundwater Conditions

Jeff is an experienced hydrogeologist with over 33 years of experience in conducting groundwater resource development projects and groundwater management programs in California and the Pacific Northwest. He has provided SGMA support to a number of GSAs, including consulting services for GSA formation, grant writing, groundwater-dependent ecosystem analysis, and successful boundary modification requests to DWR. He helped San Luis Obispo County develop its groundwater offset program to guide the County and landowners on how to mitigate or offset additional groundwater use in the Paso Robles Basin.



Section 4. Staffing

Gus Yates, PG, CHG | Modeling/Water Budget

Gus is an accomplished hydrogeologist with 30 years of experience, including work on Paso Robles water budget studies and modeling efforts. As an acknowledged expert in basin yield analysis, groundwater modeling, quantification of groundwater budgets, and evaluation of stream-aquifer interactions, Gus will apply his analytical and modeling skills to evaluation of the sustainable yield and to identification and assessment of potential projects and management actions.

Iris Priestaf, Ph.D. | Sustainability Analysis

Dr. Priestaf brings 30 years of experience groundwater basin management, including SGMA. She participated actively in shaping SGMA by working with water agency representatives on the meaning of SGMA for local agencies and communities, and developing commentary for DWR. In the Paso Robles Basin, she has participated in numerous studies, led planning efforts, and provided peer review. She brings a depth of understanding of local groundwater conditions and issues to help define sustainability criteria and identify solutions.

Edwin Lin, PG, CHG | Project Development

Edwin has 19 years of experience in groundwater basin management, with a focus on hydrogeology and managed aquifer recharge evaluations. He knows the Paso Robles Basin, having worked on a basin update a basin update in 2007, technical support on the recent model update, and leadership of two recent evaluations of recharge potential along Huer Huero Creek. His working knowledge of basin hydrogeology and managed aquifer recharge will be applied to identifying feasible recharge solutions.

Bryan Bondy, PG, CHG | Project Development

Bryan has considerable experience guiding the technical and stakeholder aspects of GSPs. He has completed numerous groundwater studies and management plans before SGMA, and currently is involved in various capacities in the development of seven GSPs. He is a member of the Fox Canyon Groundwater Management Agency's Technical Advisory Group, which is reviewing four GSPs. He is an advisor to the Upper Ventura River GSA, which is dealing with groundwater/surface water and groundwater-dependent ecosystem issues. Bryan has worked with the Las Posas Valley Basin GW Users Group for nearly a decade and recently facilitated the group's development of a proposed groundwater pumping allocation plan for the GSP. Bryan has a strong background in groundwater modeling.

Devin Best | Environmental Analysis

Devin is the executive director of the Upper Salinas-Las Tablas RCD's watershed restoration and conservation programs. He is an experienced facilitator and maintains multi-stakeholder partnerships to strategically prioritize conservation efforts. Devin is knowledgeable in the hydrology, soils, flora and fauna, ecology, and climate of the Central Coast. He is experienced in conducting assessments, biological monitoring, population dynamics, effectiveness monitoring of restoration efforts, and managing environmental permitting with local, state, and federal agencies. Devin will assist our team with identifying and evaluating the significance of groundwater dependent ecosystems in the basin and assist with environmental interest group coordination.

Duncan MacEwan, Ph.D. | Economic Analysis

Duncan is a recognized expert in the economics of water and irrigated agriculture and in the use of mathematical modeling and statistics to assess the impacts of water resource policies on agricultural production. He has recently managed projects on several local economic feasibility studies, regulatory impact analyses, benefit-cost analyses, and EIR/S support for Sites Reservoir, Kern River, and other state and federal water storage projects. In addition to his consulting experience, Duncan was a postdoctoral scholar in the Department of Agricultural and Resource Economics at the University of California at Davis.

Dawn Flores | Data Management

Dawn is skilled in the advanced application of GIS, including spatial analysis, geodatabases, spatial statistics, and terrain analysis. She is experienced in water resources planning, water quality evaluation, climate change evaluation, advanced data analysis, water resources modeling, and cartography. Dawn's modeling experience



Section 4. Staffing

includes the use of Water Evaluation and Planning System and Watershed Analysis Risk Management Framework, geodatabases, spatial statistics, and terrain analysis.

Lindsey Wilcox, P.E. (NY) | Funding/Grant Options

Lindsey specializes in water resource planning and funding support. She has prepared over a dozen planning and implementation grant applications through DWR's IRWM Program and led development of 16 Drinking Water and Clean Water State Revolving Fund (DWSRF and CWSRF) planning and construction applications. Lindsey recently provided quality control review and support for three Sustainable Groundwater Planning Grant applications including both Category 1 and Category 2 projects, submitted to DWR in early November.

Charles Gardiner | Facilitation (Optional)

Charles has 30 years of experience in program management, communications strategies, stakeholder facilitation, and team and organizational capacity building for water resources projects. He has developed public engagement strategies and coordinated public information and education programs, community outreach and promotional projects, and social marketing and behavior change programs. Charles is trained in conflict mediation, facilitation, and public decision-making techniques. He facilitates multi-agency coordination, public meetings, stakeholder workshops, advisory committees, and independent review processes.

Subconsultants

As listed below, we have included the following subconsultants to round out our team with experts in local geohydrology, irrigation practices, economics, and decision facilitation. Woodard & Curran has successfully worked with each of these companies on previous projects.

GSI Water Solutions, Inc. will support the hydrogeologic activities related to GSP preparation, bringing considerable knowledge of the hydrogeology of the basin and established relationships with many basin stakeholders (including local government, farmers, growers, ranchers, and rural residents). The firm's SGMA experts will support the team in evaluating the complexities of water in the subsurface, developing water budgets that can achieve sustainability, identifying undesirable results of continued pumping, and identifying and implementing solutions to achieve sustainability goals.

Todd Groundwater brings a unique depth of experience and commitment to groundwater management planning in California, beginning with preparation of one of the first four AB 3030 plans in 1994. Central to all management efforts—including SGMA—are water budget analyses, numerical modeling, and managed aquifer recharge, to which Todd Groundwater brings decades of experience from a variety of California groundwater basins, including the Paso Robles Groundwater Basin.

ERA Economics will support economic analysis activities. ERA specializes in quantitative analysis and mathematical model development for project development policy. ERA specializes in agricultural and environmental economics, and applies economic principals and econometrics to comprehensive data using the most current modeling methods and software.

Upper Salinas-Las Tablas Resource Conservation District (RCD) is a non-regulatory agency that provides technical expertise for landowners and land managers within its district. We have included the RCD on our team because it can identify groundwater-dependent ecosystems, assist in outreach, has direct experience working with agricultural growers regarding irrigation practices and irrigation demands, and can help identify groundwater recharge areas within the Paso Basin is part of its mission.

Catalyst (Charles Gardiner) will support decision facilitation activities, helping to make sure the GSP incorporates a solid local understanding, involves key local stakeholders, and achieves consensus. With 30 years of experience, Charles Gardiner is a trained expert in multi-agency coordination, conflict mediation, and public decision-making techniques.

Section 4. Staffing

Key Team Member/Role	Key Tasks for Which Responsible	% Available	Reference #1	Reference #2	Alternate Team Member (if needed)
Leslie Dumas Project Manager	Overall management of scope, budget, schedule; facilitation of decisions; provide technical guidance and review; maintain overall quality program; lead GSP author	50	Andrew Garcia, Associate Engineer San Luis & Delta-Mendota Water Authority on behalf of the Northern and Central Delta-Mendota GSAs 209.832.6229, Andrew.garcia@sldmwa.org Project: Delta-Mendota SGMA Program Guide	Dr. Abdul Khan, Supervising Water Resources Engineer California Department of Water Resources 916.651-9660, Abdul.Khan@water.ca.gov Project: Water Budget Framework Project	Paul Sorensen Rob Morrow
Paul Sorensen Task Manager Basin Setting & Modeling	Lead hydrogeological and groundwater conditions definition; support water budget modeling efforts, and sustainability analysis	50	Jeff Britz, General Manager Templeton Community Services District 805.434.4900, jbritz@templetoncsd.org Project: Various Water Supply and Water Resource Development Projects	John Neil, General Manager Atascadero Mutual Water Company 805.473.5466, jneil@amwc.us Project: Atascadero Basin Investigation	Jeff Barry Gus Yates Iris Priestaf
Rob Morrow Task Manager Projects & Implementation	Compile and evaluate management actions and projects, including facilities definition, cost estimates, and schedule for inclusion in Implementation Plan	60	Kirk Gonzalez, Water Conservation & Resources Program Manager City of Paso Robles 805.227.7238, kgonzalez@prcity.com Project: Phase 1 Recycled Water Distribution System Preliminary Design	Scott Duffield, General Manager Heritage Ranch Community Services District (formerly with San Luis Obispo County Public Works) 805.227.6230, scott@heritageranchcsd.com Project: Paso Robles Basin Supplemental Supply Options Study	Leslie Dumas Iris Priestaf Jeff Barry
Jeff Barry Hydrogeology/ GW Conditions	Hydrogeology and groundwater conditions in support of Paul Sorensen	40	Rick Viergutz, Principal Water Resources Planner Castaic Lake Water Agency 661.513.1282, rviergutz@clwa.org Project: Basin Boundary Modification	Laura Edwards, Former Executive Director Upper Salinas-Las Tablas Resource Conservation District 805.400.8050, lauraharvest@gmail.com Project: SGMA Support for City of Paso Robles	Edwin Lin Gus Yates Iris Priestaf
Gus Yates Modeling/Water Budget	Analytical modeling; water budget development; assessment of potential projects and management actions	30	Jeff Cattaneo, District Manager/Engineer San Benito County Water District 831.637.8218, jcattaneo@sbcwd.com Project: SGMA Support for San Benito County Water District	Vanessa De La Piedra, GW Management Unit Manager Santa Clara Valley Water District 408.265.2607x2788, vdelapiedra@valleywater.org Project: Groundwater Recharge Planning	Paul Sorenson Jeff Barry
Iris Priestaf Sustainability Analysis	Define sustainability criteria and identify potential projects and management actions	35	Michelle Myers, Groundwater Resources Manager Alameda County Water District 510.668.4454, michelle.myers@acwd.com Project: Technical Support for SGMA Alternative Plan	Jeff Cattaneo, District Manager/Engineer San Benito County Water District 831.637.8218, jcattaneo@sbcwd.com Project: SGMA Support for San Benito County Water District	Jeff Barry Bryan Bondy
Edwin Lin Project Development	Identify feasible recharge solutions	30	Kirk Gonzalez, Water Conservation & Resources Program Manager City of Paso Robles 805.227.7238, kgonzalez@prcity.com Project: Phase 1 Recycled Water Distribution System Preliminary Design	Angela Ruberto San Luis Obispo County Public Works 805.781.5139, aruberto@co.slo.us Project: Huer Huero Creek Recharge Study	Bryan Bondy Rob Morrow Iris Priestaf Jeff Barry
Bryan Bondy Water Accounting Framework	Develop water accounting framework as a management alternative	30	Jane Donlon Waters, Las Posas Users Group Chairperson (representing Donlon Ranch and Berylwood Heights Mutual Water Company) 805.432.3290, jane@donlonranch.com Project: Groundwater Pumping Allocation Program Development	Bruce Kuebler, Board Chair (representing Ventura River Water District) 805.649.3050, pbkuebler@sbcglobal.net Project: Mound Aquifer Recharge Project	Jeff Barry

Section Five Fee Proposal



Proposal for
Paso Robles Sub-Basin
Groundwater Sustainability Plan Development



Paso Robles Sub-Basin Groundwater Sustainability Plan Development

Woodard & Curran															
Tasks		Lyndel Melton	Leslie Dumas	Rob Morrow	Ali Taghavi	Lindsey Wilcox	Dawn Flores	Project Engineer(s)	Facilities	GSP Prep	Staff Support	Graphics	Admin.	Total Hours	Total Labor Costs (1)
		PIC	Project Manager	Planning & Implementation	Modeling	Financing	Data Mgmt				Misc.				
Task A: Compile and Organize Data		\$315	\$274	\$258	\$258	\$215	\$229	\$157	\$182	\$157	\$182	\$115	\$108		
A.1 Identify and Compile Existing Databases			2			4								6	\$1,464
A.2 Update and Expand Key Basin Databases			2			20								22	\$5,128
A.3 Creation of Project Database			1			20								22	\$5,128
A.4 Compile and Maintain Reference List			1											1	\$274
Subtotal Task A:		0	7	0	0	44	0	0	0	0	0	0	0	51	\$11,894
Task B: Introductory and Administrative Information								24			12			48	\$6,948
B.1 Review and compilation of GSA documentation		2	12					12			12			38	\$7,686
B.2 Coordination with GSAs		2	12	0	0	0	0	36	0	0	24	0	12	86	\$14,634
Subtotal Task B:															
Task C: Describe the Plan Area															
C.1 Description of Plan Area		4	8								24	16		52	\$9,060
C.2 Summary of Existing Monitoring and Management Programs		4	4								20			24	\$4,236
C.3 Review of Existing Land Use and GW Management Plans		4	8								24			36	\$7,220
Subtotal Task C:		8	20	0	0	0	0	0	0	0	68	16	0	112	\$20,516
Task D: Describe the Basin Setting															
D.1 Hydrogeological Conceptual Model		8										12		20	\$3,672
D.2 Groundwater Conditions		12										12		24	\$4,668
D.3 Water Budgets (Historical, Current, Future)		4												4	\$1,096
D.4 Management Areas and Representative Monitoring		8												8	\$2,192
Subtotal Task D:		0	32	0	0	0	0	0	0	0	0	24	0	56	\$11,528
Task E: Prepare Surface Water-Groundwater Flow Model															
E.1 Extend the Model Period														0	\$0
E.2 Refine Recharge Mapping														0	\$0
Subtotal Task E:		0	0	0	0	0	0	0	0	0	0	0	0	0	\$0
Task F: Identify Sustainable Management Criteria															
F.1 Identify Sustainability Goal		12	40	8	8	8	8	20	20	20	8	8		124	\$26,460
F.2 Define Undesirable Results		12	40	8	8	8	8	20	20	20	8	8		124	\$26,460
F.3 Develop Minimum Thresholds		12	40	8	8	8	8	20	20	20	8	8		124	\$26,460
F.4 Develop Measurable Objectives		12	40	8	8	8	8	20	20	20	8	8		124	\$26,460
Subtotal Task F:		0	48	160	32	0	32	80	80	80	32	32	0	496	\$105,840
Task G: Establish Monitoring Networks and Protocols															
G.1 Document Existing Monitoring Networks and Protocols													4	4	\$460
G.2 Transform Existing Programs into GSP Monitoring Program													4	4	\$460
G.3 Description of Monitoring Protocols and Future Network Assessment								12					16	16	\$2,344
Subtotal Task G:		0	0	0	0	0	0	12	0	12	0	12	0	24	\$3,264
Task H: Organize Data Management System															
H.1 Design of DMS		4				20								24	\$5,676
H.2 Coordination with other GSPs		4				12								16	\$3,844
H.3 Standardize and Incorporate Data		4				40								44	\$10,256
Subtotal Task H:		0	12	0	0	72	0	0	0	0	0	0	0	84	\$19,776
Task I: Develop and Analyze Projects and Management Actions															
I.1 Project Identification		12	40					20	8	8	100			180	\$35,036
I.2 Project Screening and Prioritization		12	40					20	8	8	100			180	\$35,036
I.3 Water Accounting Framework		24	110	0	0	0	0	40	16	16	200	0	0	390	\$78,292
Subtotal Task I:		6	10								25			41	\$8,555
J.1 Implementation Schedule Development		6	10								25			41	\$8,555
Subtotal Task J:		12	20	0	0	0	0	0	0	0	50	0	0	82	\$17,110
Task K: Outreach and Stakeholder Involvement															
K.1 Outreach Plan		4	30	24							20			98	\$21,056
K.2 Interbasin Stakeholder Outreach & Coordination (external)		8	50	40							60			102	\$18,810
K.3 Intra-basin Coordination (internal basin)		8	40	40							20			8	\$2,784
Subtotal Task K:		20	120	104	0	0	0	0	0	0	20	36	24	324	\$75,884
Task L: GSP Document Preparation															
L.1 Prepare Admin Draft GSP Chapters		8	40					100						168	\$31,424
L.2 Prepare Public Draft incorporating GSA Input		4	24					60						8	\$1,810
L.3 Prepare Final GSP		4	8					20						2	\$7,686
L.4 Support GSP Adoption		4	12											16	\$4,548
Subtotal Task L:		20	84	0	0	0	0	180	0	0	0	20	24	328	\$62,468
Task M: Project Management															
M.1 Project Delivery/100 Day Plan		4	20	10	4	4	4							46	\$12,128
M.2 Project Schedule and Budget Controls			25	4		24								53	\$13,378
M.3 Coordination			42	12										54	\$14,604
M.4 Quarterly Reporting		4	42	8									24	74	\$16,164
Subtotal Task M:		4	129	34	4	4	28	0	0	0	0	0	24	227	\$56,274
TOTAL without Optional Tasks		90	594	298	36	4	176	348	96	96	394	140	84	2260	\$477,580
Optional Tasks															
OT.1 Model Update			20	4	40									64	\$16,832
OT.2 Meeting Facilitation						40								40	\$8,600
OT.3 Grant Funding Administration			20			40								60	\$14,080
OT.4 Funding Applications			20			60								80	\$18,380
OT.5 Pilot Automated Groundwater Level Monitoring Program														0	\$0
Subtotal Optional Tasks		0	60	4	40	140	0	0	0	0	0	0	0	244	\$57,892
TOTAL with Optional Tasks		90	654	302	76	144	176	348	96	96	394	140	84	2504	\$535,472

Notes:
 1. The individual hourly rates include salary, overhead and profit.
 2. Subconsultants will be billed at actual cost plus 10%.
 3. Other direct costs (ODCs) such as reproduction, delivery, mileage (rates will be those allowed by current IRS guidelines), and travel expenses, will be billed at actual cost plus 10%.
 4. The Woodard & Curran Team reserves the right to adjust its hourly rate structure at the beginning of the calendar year for all ongoing contracts.
 5. Marc Battany's services will be conducted as part of his existing position with U.C. Agricultural Extension. As a result, he will not bill the project for his time.

Monthly Reimbursable Expenses Projections (\$K)

Year	Month	2018												
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Monthly Projections (\$K / Month)		\$75.5	\$75.5	\$75.5	\$65.7	\$65.7	\$55.7	\$51.2	\$51.2	\$51.2	\$51.2	\$51.2	\$89.7	\$89.7
Cumulative Projections (\$K)		\$75.5	\$151	\$227	\$292	\$358	\$414	\$465	\$516	\$567	\$617	\$668	\$719	\$770

Monthly Reimbursable Expenses Projections (\$K)

Year	Month	2019												
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Monthly Projections (\$K / Month)		\$54.0	\$54.0	\$54.0	\$39.6	\$39.6	\$39.6	\$39.6	\$39.6	\$39.6	\$39.6	\$39.6	\$0.0	\$0.0
Cumulative Projections (\$K)		\$890	\$944	\$998	\$1,038	\$1,077	\$1,117	\$1,144	\$1,172	\$1,199	\$1,199	\$1,199	\$1,199	\$1,199

Section 5 - Fee

Paso Robles Sub-Basin Groundwater Sustainability Plan Development

Tasks	GSI Water Solutions							Subconsultants					ERA Econ	USLT RCD	UCEE	Catalyst	ODCs	Total
	Paul Sorenson	Jeff Barry	Alco Wolf	Dave O'Rourke	Bryan Bondy	Nate Page	Andy Lepostal	Iris Priestaf	Gas Yates	Edwin Lin	Assoc Geologist	Devin Best						
Task A: Compile and Organize Data																		
A.1	2					16	40											
A.2	2				8													
A.3	2				8													
A.4	2				8													
Subtotal	8	0	0	0	24	88		0	0	0	0	0	0	0	0	0	0	0
Task B: Introductory and Administrative Information																		
B.1																		
B.2																		
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Task C: Describe the Plan Area																		
C.1						40	40	20	40	20	20	8	20	8	20	8	20	8
C.2						24	24	16	24	16	24	8	20	8	20	8	20	8
C.3						64	104	48	76	56	24	12	40	40	40	40	40	40
Subtotal	0	0	0	0	0	128	176	88	152	112	48	24	80	80	80	80	80	80
Task D: Describe the Basin Setting																		
D.1	16	16				40	40											
D.2	8	16	8	8	24	24	24	16	24	16	24	12	4	4	4	4	4	4
D.3	4	16	116	8	8	24	24	16	24	16	24	12	4	4	4	4	4	4
D.4	8	8	8	8	16	16	16	16	16	16	16	12	4	4	4	4	4	4
Subtotal	36	56	116	16	64	104	104	48	76	56	24	40	80	80	80	80	80	80
Task E: Prepare Surface Water-Groundwater Flow Model																		
E.1	8					24	24											
E.2	8					24	24											
Subtotal	16	0	176	0	0	0	0	4	112	4	12	0	0	0	0	0	0	0
Task F: Identify Sustainable Management Criteria																		
F.1	4	10	8		20	24	24	20	20	4	4	4	20	4	4	4	4	4
F.2	4	10	8		16	24	24	16	20	16	12	4	20	16	16	16	16	16
F.3	4	10	8		16	24	24	120	40	16	12	4	20	16	16	16	16	16
F.4	4	10	8		16	24	24	40	20	16	12	4	20	16	16	16	16	16
Subtotal	16	40	32	0	68	104	104	240	80	60	40	20	80	80	80	80	80	80
Task G: Establish Monitoring Networks and Protocols																		
G.1	2	8				24	24											
G.2	2	8				24	24											
G.3	2	8				24	24	16	16	16	12	4	20	16	16	16	16	16
Subtotal	6	24	0	0	0	72	72	40	40	40	40	0	80	80	80	80	80	80
Task H: Organize Data Management System																		
H.1	4					8	8											
H.2	4					8	8											
H.3	4					8	8	60	60	60	60	60	60	60	60	60	60	60
Subtotal	0	12	0	0	0	24	24	60	60	60	60	0	0	0	0	0	0	0
Task I: Develop and Analyze Projects and Management Actions																		
I.1	8	12				24	24											
I.2	8	12	200		80	24	24	4	88	20	16	2	2	2	2	2	2	2
I.3	4	40			80	24	24	12	88	20	32	0	12	12	12	12	12	12
Subtotal	20	64	200	0	80	24	24	0	276	40	48	40	14	14	14	14	14	14
Task J: Plan Implementation																		
J.1	4	4				8	8											
J.2	4	4				8	8											
Subtotal	8	8	0	0	0	32	32	0	0	0	0	0	0	0	0	0	0	0
Task K: Outreach and Stakeholder Involvement																		
K.1	2	8				8	8											
K.2	20	4				24	24											
K.3	40	8	24		36	48	48	36	48	48	40	0	14	14	14	14	14	14
Subtotal	62	20	24	0	0	72	72	72	96	96	80	40	14	14	14	14	14	14
Task L: GSP Document Preparation																		
L.1	20	24	48	24	24	40	40	24	20	20	24	8	8	8	8	8	8	8
L.2	4	20	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
L.3	4	4	4	4	4	16	16	8	8	8	8	8	8	8	8	8	8	8
L.4	8	8	8	8	8	64	64	40	28	28	32	0	8	8	8	8	8	8
Subtotal	36	56	52	0	48	64	64	40	88	88	80	40	32	32	32	32	32	32
Task M: Project Management																		
M.1	10																	
M.2	4																	
M.3	12																	
M.4	8																	
Subtotal	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total without Optional Tasks	242	280	600	16	228	272	332	412	432	140	72	176	40	46	0	\$711,898	\$9,625	\$1,199,103
Optional Tasks																		
OT.1	8	8	116					0	44	40	24							
OT.2															60	\$54,890	\$330	\$72,052
OT.3																\$13,530	\$825	\$22,955
OT.4																\$0	\$220	\$14,300
OT.5	8	8	108				208									\$0	\$220	\$18,600
Subtotal	8	16	224	0	0	0	208	0	44	40	24	0	0	0	\$48,796	\$29,700	\$78,496	
Total with Optional Tasks	250	296	824	16	228	272	540	412	476	180	96	176	40	46	\$829,114	\$40,920	\$1,405,506	

Assumptions

1. Task A assumes preliminary database will be in a commonly-accessible platform such as EXCEL.
2. Subtask D.4 assumes documentation of management areas and monitoring only.
3. Task H assumes purchase of DMS platform is not included herein nor does the estimate include customization of purchased DMS.
4. Task K assumes outreach time/coordination up to hours shown and quarterly intra-basin coordination meetings.
5. Task L assumes GSP adoption support up to hours shown herein.
6. Task M includes monthly calls with the Paso Basin Cooperative Committee or an ad hoc committee.
7. A total of 13 in-person meetings are assumed. Each meeting will include topics covering multiple tasks. Outreach will be a component of each meeting.

Section Six Contract Terms



Proposal for
Paso Robles Sub-Basin
Groundwater Sustainability Plan Development

In reviewing the City's Professional Service Agreement (PSA), we noted that since we signed a PSA in 2016 with the City, the indemnity clause in the City's PSA has been changed. We would like the City to consider keeping the same indemnity language in place that is in the 2016 PSA in lieu of the new indemnity in Paragraph 12.

The indemnity language in the 2016 agreement read as follows:

13.1 — To the fullest extent permitted by law (including, without limitation, California Civil Code Sections 2782 and 2782.8), Design Professional shall defend (with legal counsel reasonably acceptable to the City) indemnify and hold harmless City and its officers, agents, departments, officials, representatives and employees (collectively "Indemnitees") from and against any and all claims, loss, cost, damage, injury (including, without limitation, injury to or death of an employee of Design Professional or its subconsultants), expense and liability of every kind, nature and description (including, without limitation, fines, penalties, incidental and consequential damages, court costs, attorneys' fees, litigation expenses and fees of expert consultants or expert witnesses incurred in connection therewith, and costs of investigation), that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of Design Professional, any subconsultant, anyone directly or indirectly employed by them, or anyone that they control (collectively "Liabilities"). Such obligations to defend, hold harmless and indemnify any Indemnitee shall not apply to the extent that such Liabilities are caused by the sole negligence, active negligence, or willful misconduct of such Indemnitee.

We would welcome the opportunity to discuss this suggestion in further detail with you.

Section Seven References



Proposal for
Paso Robles Sub-Basin
Groundwater Sustainability Plan Development

The majority of Woodard & Curran's work is follow-on projects with current clients, resulting from the quality of our work and the responsiveness of our staff to our clients' needs. Woodard & Curran has teamed with subconsultants who also have solid reputations for service and technical ability. We encourage you to contact our team's references and hear more about the work we have performed for municipal clients, our ability to realize timetables and quality control objectives, and the skill and expertise of our team members. Descriptions of each these projects including service dates and project details are included in Section 3 – Qualifications.

Project References for Woodard & Curran:

Project: Delta-Mendota SGMA Program Guide

Client Reference: Andrew Garcia, Associate Engineer

San Luis & Delta-Mendota Water Authority on behalf of the Northern and Central Delta-Mendota GSAs
209.832.6229, Andrew.garcia@sldmwa.org

Project: Water Budget Framework Project

Client Reference: Dr. Abdul Khan, Supervising Water Resources Engineer

California Department of Water Resources
916.651.9660, Abdul.Khan@water.ca.gov

Project: Long-Term Supplemental Water Supply Alternatives for Santa Barbara County

Client Reference: Tom Fayram, Water Resources Deputy Director, Santa Barbara County

805.568.3466, tfayram@cosbpw.net

Project Reference for GSI:

Project: San Luis Obispo Valley (Edna) Groundwater Basin Characterization and Planning Activities

Client Reference: Dick Tzou, San Luis Obispo County Public Works

805.781.4473, dtzou@co.slo.ca.us

Project References for Todd Groundwater:

Project: Groundwater Management and SGMA Support for San Benito County Water District, Bolsa, Hollister, and San Juan Bautista Groundwater Basins, San Benito County

Client Reference: Jeff Cattaneo, District Manager/Engineer, San Benito County Water District

831.637.8218, jcattaneo@sbcwd.com

Section Eight Disclosures



Proposal for
Paso Robles Sub-Basin
Groundwater Sustainability Plan Development



CONFIDENTIAL

The following is a listing of any litigation, arbitration or claims proceedings which presently involve Woodard & Curran, Inc. or in which Woodard & Curran, Inc. has been involved in the past five years. RMC Water and Environment (RMC) is identified for proceedings initiated prior to its purchase by Woodard & Curran in November 2016:

- ▶ **City of Victorville v. Lakeside Equipment Corp., CA, CIV-VS-1103207.** Woodard & Curran's client, the City of Victorville, brought this lawsuit against Lakeside, an equipment supplier with whom the City contracted for screens for its wastewater treatment facility. The case was resolved in 2014.
- ▶ **HK&S v. Dible et al., RI, 12-14-M.** A general contractor initiated this lawsuit against Woodard & Curran's municipal client after it was not awarded a project by the Town. The Rhode Island Superior Court granted in full Woodard & Curran's Motion for Summary Judgment in this case.
- ▶ **Town of Swampscott v. Weston & Sampson CMR, Inc., et al., MA, 12-01996.** In a subrogation action, the Town's insurance company initiated this lawsuit against several defendants, including the contractor that installed the pipe, in connection with a pipe break that occurred at a pumping station. All parties agreed to dismiss Woodard & Curran from the case via a stipulation of dismissal with prejudice.
- ▶ **Mount Construction, Inc. v. Maple Shade Township, et al., NJ, L-001959 13.** Mount Construction initiated this pending lawsuit against Woodard & Curran's client, Maple Shade Township, and Woodard & Curran, seeking unspecified damages under an equitable adjustment in connection with a street reconstruction project. The case was resolved in 2016.
- ▶ **Feliciano et al. v. Cate Street Capital et al., WY, 13CV162-S.** Woodard & Curran was one of four defendants in this lawsuit in connection with a Cate Street Capital project at their Red Desert Reclamation facility in Wyoming wherein plaintiffs sought unspecified damages. The case was resolved in 2014.
- ▶ **West Bay Builders, Inc. v. City of San Mateo, CA, 2014.** RMC was brought into a lawsuit between and among a client, construction contractor, and pump vendor related to the client's claims for defective construction. The case is resolved.
- ▶ **Monterey County Water Resources Agency and California-American Water Services Co. v. Marina Coast Water District and RMC Water and Environment and related actions, CA, 2015.** In 2015, RMC and a client were named as co-defendants in a lawsuit filed by two water agencies in relation to the termination of a project. RMC denies responsibility for any of the claims. This action is in progress.
- ▶ **Town of Peterborough. v. Woodard & Curran, NH, Civil No. 16-cv-198-LM.** The Town of Peterborough, NH initiated this lawsuit asserting a claim for unspecified funding-related damages in connection with an engineering project at the Town's Wastewater Treatment facility. The case is pending.
- ▶ **Lexington Ins. Co. v. C.C. Construction, Inc., et al., MA, Civil No. 16-1992F.** Lexington Insurance Company brought a subrogation lawsuit against C.C. Construction and Woodard & Curran, seeking recovery of \$50,000 it alleges it paid to its insured, the Pineapple Inn, for damage from a sewer back-up. In the Complaint, Lexington alleges, among other things, that the cause of the back-up was C.C. Construction disconnecting one of the Hotel's sewer drain lines from the underground main in the street and then failing to reconnect it. The case is pending.