

OWENS VALLEY GROUNDWATER AUTHORITY

Big Pine CSD — City of Bishop — County of Inyo — County of Mono — Eastern Sierra CSD — Indian Creek-Westridge CSD — Keeler CSD —
Sierra Highlands CSD — Starlite CSD — Tri Valley Groundwater Management District — Wheeler Crest CSD

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Staff Report

Date: **9/13/18**

Subject: **Recommendation for hiring a consultant to prepare a groundwater sustainability plan**

On June 20, 2018, a request for qualifications (RFQ) was circulated to eleven consulting firms inviting each to submit a response concerning their qualifications for preparing a SGMA Groundwater Sustainability Plan for the Owens Valley Groundwater Basin to the Inyo County Water Department by July 31, 2018. Responses were received from Luhdorff & Scalmanini Consulting Engineers, Daniel B. Stephens & Associates Inc. (DBS&A), GEI Consultants, Partner Engineering & Science Inc., and Larry Walker Associates. Staff from Inyo County, Mono County, and City of Bishop reviewed the material submitted by these consultants, scored them based on the scoring criteria given in the OVGGA-approved RFQ, and conducted follow-up phone interviews with Larry Walker Associates, DBS&A, and GEI Consultants. Phone interviews were completed yesterday morning.

Staff unanimously recommends that the OVGGA use the team assembled by DBS&A to prepare the GSP for the Owens Valley Groundwater Basin. Based on review of the respondents' statements of qualifications and phone interviews, DBS&A's qualifications, experience, and team composition best fits the OVGGA's needs. In addition to DBS&A's core competencies in groundwater science and management, DBS&A has assembled a strong team of subcontractors with specialties in groundwater dependent ecosystems (Stillwater Sciences), water policy public process facilitation and outreach (Consensus and Collaboration Program), groundwater monitoring (TEAM Engineering and Management), and utility rate and fee studies (Lechowicz & Tseng Municipal Consultants). Attached are excerpts from DBS&A's statement of qualifications, including an executive summary, an organizational chart, brief biographies of their three principal team members, a budget summary, their approach to the work, descriptions of their subcontractors' capabilities, and their conflict of interest statement.

Staff requests direction to enter into contract negotiations with DBS&A. Given such direction, we anticipate bringing a contract back to your Board in October for approval.

QUALIFICATIONS



Groundwater Sustainability Planning for the Owens Valley Groundwater Basin

Photo credit: inyowater.org

July 31, 2018



Prepared for

County of Inyo Water Department

135 S. Jackson Street
Independence, California 93526



Prepared by

DBS & A
Daniel B. Stephens & Associates, Inc.

3916 State Street, Suite 1A
Santa Barbara, California 93105

Executive Summary



DBS&A
Daniel B. Stephens & Associates, Inc.

DBS&A is a water resources, environmental, and engineering consulting firm

founded in 1984 with offices throughout California. As a wholly owned subsidiary of Geo-Logic Associates (GLA), based in Ontario, California, we have access to 245 professionals in 25 offices in total, including 80 professionals and 11 offices in California (Anaheim, Costa Mesa, Grass Valley, Morgan Hill, Oakland, Ontario, Petaluma, Roseville, San Bernardino, San Diego, and Santa Barbara).

DBS&A's water resource professionals have groundwater management planning expertise to assist Inyo County and Owens Valley Groundwater Authority (OVGA) with complying with California's Sustainable Groundwater Management Act (SGMA). Our team has broad expertise in the issues pertinent to groundwater sustainability planning, including groundwater resources assessments and safe yield evaluations, conjunctive use, water supply development, feasibility studies, water system engineering, water rights acquisition, agricultural water conservation, watershed management, funding for water resource projects, stakeholder participation, and community planning.

The DBS&A team provides several key benefits to Inyo County and OVGA.

- ◆ **The DBS&A team has the scientific expertise and bench strength to expertly develop an accurate hydrogeologic conceptual model and water budget for the Basin.** Our hydrogeologists and modelers have leveraged their experience in developing groundwater budgets and numerical models, and estimating sustainable yield; the technical underpinning for Groundwater Sustainability Agencies (GSAs) working toward compliance with SGMA.
- ◆ **In addition to its SGMA experience, DBS&A has developed groundwater plans for stakeholder groups in compliance with SGMA-type regulations in other states for many years.** DBS&A staff have been supporting Groundwater Conservations

Districts and Groundwater Management Areas in Texas, for example, for over a decade providing strategic direction and technical analysis for development of their Desired Future Conditions (DFCs), which are analogous to California's Groundwater Sustainability Plans (GSPs). As a result of this experience, we have built strong in-house capabilities to perform planning and technical studies required by SGMA.

- ◆ **Our proposed Project Manager, Tony Morgan, P.G., C.H.G., has exceptional knowledge of SGMA from both the consultant's and the GSA's point of view to anticipate and guide the OVGA through technical and administrative challenges inherent in SGMA compliance.**

As the former Deputy General Manager for the United Water Conservation District (UWCD), he has been involved in forming GSAs, creating GSPs, and conducting groundwater basin studies.

Mr. Morgan's key roles and accomplishments related to SGMA have included:

- » Serving on the GSA Joint Powers Authority (JPA) Formation Negotiation Committee that negotiated with County of Ventura, City of Ventura, Mound Basin Ag Water Group, and environmental stakeholders to form the JPA, which later became the GSA, in the Mound Basin and was chief negotiator with representatives from the County of Ventura, City of Fillmore, Fillmore Basin Pumpers Association, Piru Basin Pumpers Association, and environmental stakeholders, for creation of JPA that became the GSA for the Fillmore and Piru Basins (FPBGSA)
- » Serving as Lead Technical Representative to FPBGSA on issues dealing with agency formation, GSA compliance requirements, identification and selection of legal counsel, basin boundary modifications, fiscal strategies/cash flow projections, and GSP development strategies

“ [Tony] has a clear and detailed understanding of the intricacies of SGMA and the technical knowledge to back that up.....”

~Gordon Kimball, Rancher



- » Serving as Local Agency Representative to FPBGSA and Mound Basin GSA for issues dealing with mutual, in-kind support, data sharing, water-supply augmentation projects, and regional groundwater management strategies
- » Serving as the Local Agency Representative to a multi-agency team that successfully negotiated the removal of Piru, Fillmore, Mound, and Las Posas basins from “overdrafted” condition classification with California Department of Water Resources (DWR)
- » Serving on the SGMA Technical Advisory Group (TAG) for the Fox Canyon Groundwater Management Agency (FCGMA) to advise the Board of Directors on technical aspects of the four GSPs (Oxnard Basin, Pleasant Valley, Las Posas, and Arroyo Santa Rosa basins) currently under development
- » Served on a subcommittee of the FCGMA SGMA TAG that worked with The Nature Conservancy and DWR to develop a Groundwater Dependent Ecosystems (GDEs) Guidance Framework manual for the identification, evaluation, and consideration of GDEs

Because of his experience, Mr. Morgan will be a great resource to the OVGGA in navigating through the administrative functions of a new GSA, including identification of management areas, development of sustainability criteria, development of an annual GSP reporting system, submittal of the GSP to DWR, and putting into place and implementing a process for GSP revisions based on DWR’s review.

♦ **Our team members have considerable knowledge and experience of the Owens Valley Groundwater Basin (OVGB).**

- » Our project principal has worked with the Green Book and developed a strategic approach that facilitated Inyo County Water Department/Los Angeles Department of Water and Power (ICWD/LADWP) interaction on groundwater management planning.
- » Our lead hydrogeologist updated the groundwater flow model of Rose Valley, just south of Owens Valley.
- » Our teaming partner, Consensus and Collaboration Program (CCP), has already lead stakeholders discussions which have facilitated, in part, the formation of the OVGGA.
- » Subcontractor, TEAM Engineering & Management, Inc. (TEAM) brings extensive experience with groundwater monitoring projects and land use in the Owens Valley to play a key role in refinement and consolidation of your existing groundwater monitoring programs. TEAM also provides the DBS&A team with geographic proximity, local organizational and logistical knowledge, and allows the DBS&A team to be responsive to local needs on short notice.
- ♦ **DBS&A has 30 years of experience developing water resource management plans of all sorts.** In addition to providing SGMA support, our California staff have developed Urban Water Management Plans, Groundwater Management Plans, and contributed to Integrated Regional Water Plans. DBS&A performed a 21-county regional water plan update in Texas, which was led by proposed key team members Amy Ewing, P.G., and Neil Blandford, P.G. In the State of New Mexico, DBS&A has completed regional water plans for 8 regions covering more than 50 percent of the state.

Our team will be led by DBS&A with support from:

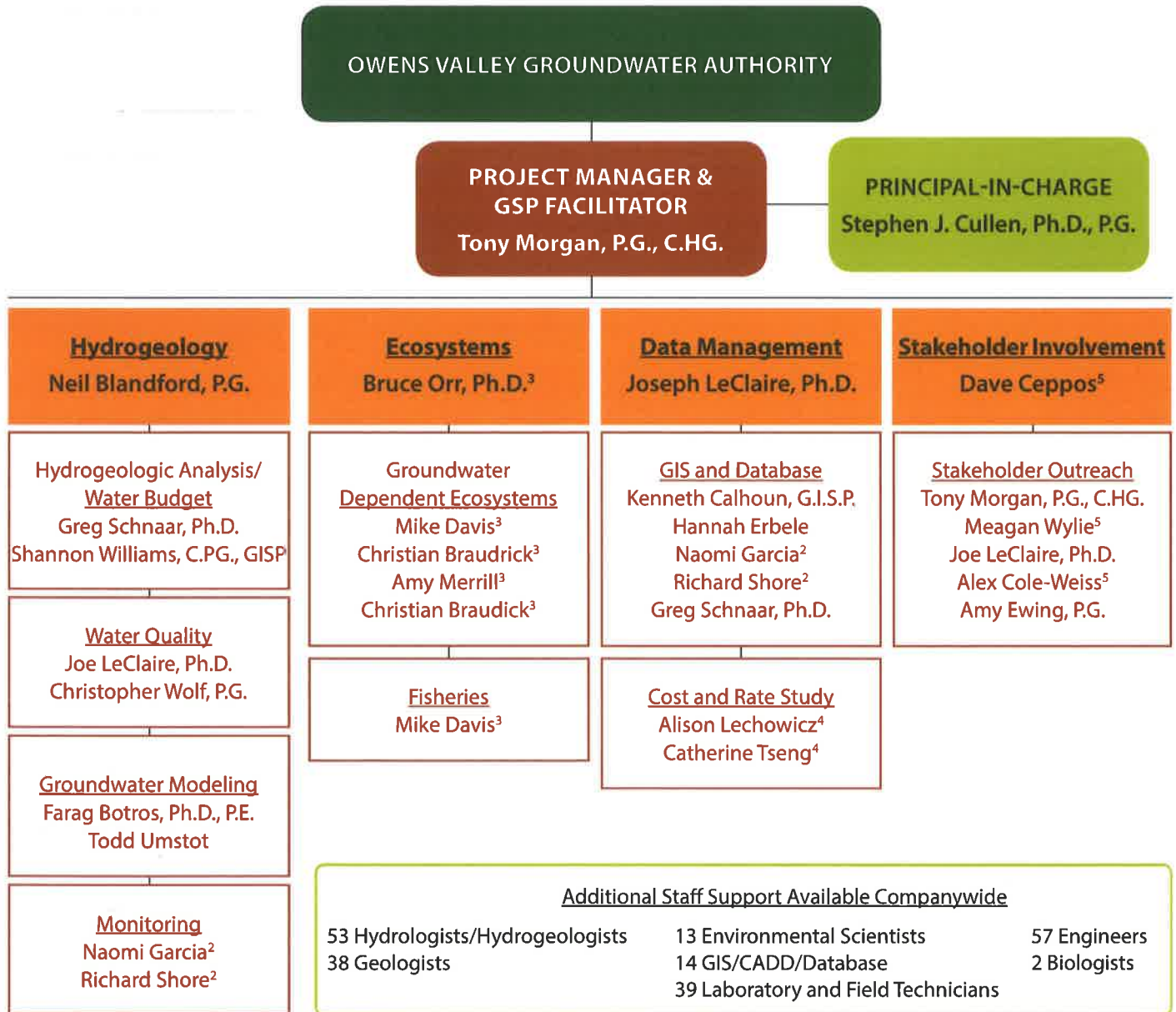
- ♦ CCP (formerly known as Center for Collaborative Policy) at Sacramento State which will lead public engagement and stakeholder processes
- ♦ TEAM will provide local field and engineering staff for monitoring and local data collection This woman-owned business will also provide a local base of operations for the DBS&A team members working in the Basin.
- ♦ Stillwater Sciences (Stillwater), who will provide expertise in biology and aquatic ecology to assist in addressing sustainability of Fish Slough and to lead California Environmental Quality Act (CEQA) permitting.
- ♦ Lechowicz & Tseng Municipal Consultants (L&T) brings expertise in financial planning, utility rate and fee studies, and impact fee/capacity charge studies.



1. Staff Capabilities

As depicted in the organizational chart below, DBS&A has assembled a team of professionals that will work under the leadership of Mr. Tony Morgan, P.G., C.HG., as Project Manager, and Dr. Stephen J. Cullen, P.G., as Principal-in-Charge.

The qualifications and depth of our team’s expertise is shown at-a-glance in the matrix following the organizational chart. Brief biosketches for key DBS&A team members follow the matrix and detailed resumes are provided in Appendix A.



Subconsultants
² TEAM ³ SWS ⁴ L&T ⁵ CCP



TEAM LEADERSHIP

Mr. Tony Morgan will be your primary point of contact and will be responsible for management of the project scope, schedule, and budget. He will direct and oversee work conducted by DBS&A and subcontractor task leaders. As depicted in the organizational chart above, task leaders have been assigned to manage tasks associated with hydrogeology, ecosystems, data management, and stakeholder involvement, and will coordinate with team members with relevant skill sets. Task leaders will direct most day-to-day work within their specified discipline, with input from Mr. Morgan. As principal-in-charge, Dr. Cullen will be responsible for your ultimate satisfaction with our work. He will provide review and senior oversight of the work and will ensure that appropriate resources are made available to successfully develop the GSP.



**Tony Morgan, P.G.,
C.H.G.—Project
Manager**

Mr. Morgan has nearly 40 years of experience in water supply, water management, and hydrogeological programs for municipal,

industrial, and agricultural applications. Over his career as a consultant and, recently the Deputy General Manager of a California water district, he has been involved in a broad range of projects related to groundwater supply development and management. In recent years, Mr. Morgan has gained expertise in SGMA compliance, including formation of GSAs, creation of GSPs, and conducting groundwater basin studies.

He has had direct involvement in the operation of a public agency intimately engaged in the SGMA process for eight groundwater basins and has served as lead person for compliance with SGMA and directing the United Water Conservation District's (UWCD) role in the formation of GSAs in three groundwater basins and coordination of UCWD's role with the FCGMA. He served as the

UWCD's representative on groundwater and water resource matters before multiple entities, including the Fox Canyon Groundwater Management Agency, the Ventura County Farm Bureau, DWR, the Association of California Water Agencies (ACWA), the Groundwater Resources Association of California (GRAC), and local municipalities, agricultural groups and other stakeholders. He is also on the Board of Directors of the American Groundwater Trust. Other particularly relevant assignments include serving:

- ◆ On the GSA JPA Formation Negotiation Committee in Ventura County
- ◆ As Lead Technical Representative to FPBGSA in Ventura County
- ◆ As Local Agency Representative to FPB GSA and Mound Basin GSA in Ventura County
- ◆ As Local Agency Representative to Multi-Agency Team in Ventura County for reclassification of "critically overdrafted" basins in Ventura County
- ◆ On GMA FCGMA TAG
- ◆ As a Technical Advisor on SGMA GDEs Guidance Framework prepared by The Nature Conservancy
- ◆ On Water Supply Augmentation Project Ad Hoc Committee for FCGMA

“ I needed someone I could trust and rely on to represent the district with our constituents and other government leaders in continuing our primary mission. In addition to focusing on groundwater overdraft information to inform the community on the seriousness of the problem Tony also was innovative in developing ideas for solutions so we just didn't talk about the problem. His efforts went a long way in maintaining the district's credibility and leadership standing in the area.”

**~E. Michael Solomon, General Manager
(ret.), United Water Conservation District**



Mr. Morgan has developed, performed or provided oversight for: basin-wide groundwater elevation and water-quality monitoring programs; basin-scale hydrostratigraphic models; surface geophysical (e.g., CSAMT, TDEM, resistivity, and gravity) exploration programs; acquisition and interpretation of borehole geophysical logs; basin-scale groundwater flow models; evaluation of water-quality data for potable and irrigation suitability; siting and design of new potable and irrigation water supply wells; and aquifer replenishment activities (i.e., surface water diversions, spreading basins).

He is also experienced with administrative/management activities, including the development of scopes, specifications, and budgets; contract negotiations with subcontractors and clients; management of multi-disciplinary teams; project management to accomplish technical, schedule, and fiscal guidelines; and administrative/personnel management.



Stephen J. Cullen, Ph.D., P.G.—Principal-in-Charge

Dr. Cullen is a Principal Hydrogeologist with more than 40 years of experience. He will provide overall project oversight and contract coordination with OVGA as DBS&A's Project Principal-in-

Charge. Dr. Cullen is DBS&A's Director of California Operations and a Senior Vice President with the firm. He has over 40 years of experience in environmental geology, groundwater hydrology, agricultural consulting, irrigation management, watershed studies, safe yield studies, and groundwater studies that comply with SGMA, groundwater and vadose zone modeling, conjunctive use of water, research, and directing large complex groundwater investigations. He has conducted and directed hydrogeologic studies for municipal water districts, water authorities, county and city public works departments, and private enterprises. Dr. Cullen has significant experience in numerous agricultural, industrial, and municipal settings, and he has provided hydrogeologic consultation, litigation support, and

interaction with the regulatory community and public on behalf of farmers, ranchers, private industry, water and wastewater agencies, and municipalities. He continuously maintains direct involvement with project work to hone and maintain his experience credentials, and he has served as a faculty member at major academic institutions, has an extensive publication record, has provided expert testimony at trial in state and federal court, and has served on expert panels at the state and national levels. He is currently a member of the Board of Directors of the American Groundwater Trust. He has an established ability to convey complex technical information in terms that are readily understood by diverse stakeholder groups.

“ Their professionalism and the superb technical work accomplished by Drs. Cullen and Botros contributed significantly to the understanding of the hydrology issues in the case, allowing the judge and jury to arrive at a judgement favorable to our farmer client group. ”

**~Steve Andersen, Attorney
Andersen Schwartzman Woodard Brailsford**

Dr. Stephen J. Cullen conducted a study of the Owens Valley “Green Book,” a technical groundwater management guidance document created as the result of decades of litigation between the City of Los Angeles and Inyo County over the groundwater resources of Owens Valley. The goal of the parties was twofold: (1) to produce an adequate water supply to the City of Los Angeles, and (2) protect the integrity of the ecosystems of Owens Valley. An evaluation of a proposed methodology to calculate the evapotranspiration coefficient was conducted, along with an evaluation of proposed research programs designed to improve the groundwater and ecosystem database. Over a period of one year, Dr. Cullen directed a team in a detailed analysis of the instrumentation and methodologies used to make measurements affecting



the water balance in the Owens Valley, conducted a mathematical analysis of the algorithms used to make groundwater pumping decisions, and evaluated the scenarios that would result from following the directives of the Green Book. Dr. Cullen also evaluated the state-of-the-art methodologies for measuring and estimating evapotranspiration and compared them to the methodologies historically used in the Owens Valley and at other similar sites. To augment his evaluation of the proposed research programs, Dr. Cullen empaneled a team of experienced hydrogeologists to form an evaluation committee. Lastly, Dr. Cullen wrote a proposed approach to the strategic management of groundwater in the Owens Valley. The findings and conclusions were reported in a four-volume report to the LADWP and the Los Angeles City Attorney. Subsequent to that submittal, LADWP embarked on a large-scale program to reevaluate and reconstruct, as appropriate, the approach to groundwater and ecosystem management in the Owens Valley, based, in part, on the concepts recommended in Dr. Cullen's team report.

Dr. Cullen served as Principal Hydrogeologist and Technical Reviewer on the sustainable safe yield study for the Santa Paula Groundwater Subbasin for the UWCD in the Santa Clara River Watershed, groundwater budget and groundwater management plan for the Upper and Lower Ventura River Basin for the Ventura County Watershed Protection District, and coupled watershed/surface water/groundwater/water quality numerical model for the Ventura River Watershed and Groundwater Basin for the California State Water Resources Control Board. He is also a hydrogeologist working on the GSP groundwater balances for FCGMA.

KEY TEAM MEMBERS



Neil Blandford, P.G.— Hydrogeology Task Leader

Mr. Blandford specializes in water planning and sustainability analysis, water supply investigations and water rights analysis, numerical simulation of groundwater flow and contaminant transport, computation of the effects of groundwater pumping on surface water, source water determinations, well field design, and expert testimony. He is an expert in groundwater flow and solute transport modeling, estimation of the effects of groundwater pumping on surface water, and aquifer exploration and characterization. Mr. Blandford has served as an expert witness in numerous water rights cases.

Mr. Blandford served as Principal Investigator for the comprehensive update and recalibration of the County of Inyo's Rose Valley Groundwater Model in accordance with Mitigation Monitoring and Reporting Program of Conditional Use Permit 2007 003. He gained familiarity of the groundwater resources and local hydrogeological conditions through conducting a basin-wide recharge estimate, refinement of the model grid and boundary conditions, improved calibration to historical water levels, and consideration of historical stresses on the basin (Haiwee Reservoir construction and pumping for irrigation) from 1915 through 2010.

“ [Neil is] ...extremely effective in communicating very technical scientific information and data to non-technical persons... [DBS&A] has some of the brightest minds I've met in the field of hydrology and water resources any ”
where in the western United States...

~Greg L. Bushner, R.G.
Vice President of Water Resource Development
Vidler Water Company



Budget Summary

Task	Description	Total Task Costs
1	Initial site visit	\$19,565
2	Public engagement plan	\$14,378
3	Data & document compilation, review, and management	\$68,613
4	Develop interagency agreements	\$25,920
5	GSP area and GSP information	\$25,904
6	Basin setting	\$154,356
6a	<i>Hydrogeological conceptual model</i>	\$25,272
6b	<i>Establishment of groundwater management zones (GMZs)</i>	\$40,012
6c	<i>Water budget for each GMZ</i>	\$63,812
7	Sustainable management criteria	\$26,660
8	Progress report public meeting	\$14,613
9	Develop/refine monitoring program	\$25,322
10	Identify & describe projects...to meet sustainability	\$158,129
10a	<i>Cost and rate study</i>	\$22,000
10b	<i>Assessment and reconciliation of groundwater models</i>	\$28,480
10c	<i>Coordination with Inyo/LA Water Agreement</i>	\$21,032
10d	<i>Coordination to identify stakeholders</i>	
10e	<i>Monitoring network improvement</i>	\$26,365
10f	<i>LADWP: groundwater development at Owens Lake</i>	\$5,168
10g	<i>Tri Valley/Owens Valley/ Fish Slough groundwater flow paths</i>	\$17,340
10h	<i>Examination of hydrologic factors affecting West Bishop</i>	\$25,960
10i	<i>Recommendations for other studies</i>	\$4,504
11	Develop implementation budget & schedule	\$7,520
12	Develop system for annual reporting	\$11,280
13	Compilation, presentation, submittal of GSP	\$111,550
14	Refine draft GSP and submit as the final GSP	\$16,578
15	Coordination meetings between consultant and GSA staff	\$30,540
16	Supplemental / Optional Tasks	
16a	Analysis of the effects of climate change on the sustainable yield of the Basin	
16b	Enhanced effort for GDEs	
16c	Enhanced Stakeholder Outreach	
16d	Rate adoption assistance	
16e	Rate Study for GSP Preparation	
16f	GSP Implementation Funding Plan	
Total Costs for Required Tasks		\$710,928



3. Approach and Scope of Work

Our technical approach is geared towards the identification of an expeditious, yet technically reasonable and implementable path to sustainability for the Basin. We understand that a great deal of information exists for the Basin and these data will be the foundation upon which the GSP will be built. A GSP is not required to be a large document or overly complicated. Our approach is to prepare a GSP that:

- ◆ Is tailored to the critical issues of the Basin;
- ◆ Addresses the items prescribed by DWR in their GSP Preparation Checklist and GSP Annotated Outline guidance documents; and
- ◆ Is sensitive to the scope of work and available funding as defined by County of Inyo Water Department.

SGMA specified many actions that a GSA must do to be in compliance. Many GSAs throughout California are newly formed public entities created in direct response to SGMA, and have limited experience in groundwater management. To assist these GSAs in meeting their sustainability goals and thereby achieve compliance with SGMA, the DWR has created a series of documents to aid the GSAs. These documents were published by DWR as Best Management Practices (BMPs) or Guidance Documents. The BMPs and Guidance Documents are not a replacement for the GSP Regulations or SGMA statutory provisions, but do provide insight into DWR expectations and how DWR will evaluate the adequacy of a GSP.

BMPs are defined as “the practice, or combination of practices, that are designed to achieve sustainable groundwater management and have been determined to be technologically and economically effective, practicable, and based on best available science.” To date, the following BMPs are available to provide clarification and guidance on GSP content:

- BMP 1 - Monitoring Protocols Standards and Sites
- BMP 2- Monitoring Networks and Identification of Data Gaps

BMP 3 - Hydrogeologic Conceptual Model

BMP 4 - Water Budget

BMP 5 - Modeling

BMP 6- Sustainable Management Criteria (draft)

BMP Framework

Guidance Documents “...address topic areas unique to SGMA, for topics where no established practices in the water management industry exist, and which may not have been specifically identified in the GSP Regulations.” To date, the DWR has developed the following guidance documents:

- ◆ Guidance for Climate Change Data Use During Sustainability Plan Development
- ◆ Stakeholder Communication and Engagement
- ◆ Engagement with Tribal Governments
- ◆ GSP Annotated Outline
- ◆ Preparation Checklist for GSP Submittal

These BMPs and Guidance Documents will assist the DBSA team in the preparation of the GSP. Each of the major GSP project elements (i.e., Outreach, Basin Setting, Planning, Projects and Management Action, and Monitoring), when combined, present a systematic path to completing the GSP. The BMPs and Guidance Documents serve to inform the process and provide a framework where the OVGA and interested stakeholders can understand the general steps and recognize how the Basin sustainability planning can be achieved.

The DBSA team’s approach to this project has the following major components:

- ✓ **Leverage existing knowledge**
 - » Make extensive use of the information obtained from the many existing technical and management reports;
 - » Refer to the local expertise and knowledge of our team members;
 - » Engage with local stakeholders early in the process to identify their concerns and identify knowledge beneficial to the GSP development process; and



- » Rely upon the broad experience of our team members gained from working on other GSPs, water resource management projects, groundwater modeling, and regulatory compliance programs.

✓ **Proactive Stakeholder Engagement Strategy**

- » Engage stakeholders early to identify issues early in the process;
- » Establish multiple venues for stakeholders to participate in the process; and
- » Create and implement a stakeholder engagement plan-show stakeholders how they can participate in the process.

✓ **DWR Interaction**

- » Engage in strategic discussions with DWR personnel to help resolve questions or potential problems in an expedient manner; and
- » Communicate frequently and effectively to minimize the potential for delays in GSP preparation or in DWR approval.

✓ **Effective Data Management**

- » Implement a multi-function data management system;
- » Use data archival functionality for existing and future data sets; and
- » Use data retrieval capabilities for research, analysis, and public information.

✓ **Technical Analyses Focused on Essential Issues**

- » Concentrate technical work on issues critical to determining the sustainable yield of the Basin;
- » Fill in data gaps later. Significant data unknowns can be addressed over time rather than spending limited fiscal resources during the early stages of the GSA operations;
- » Prepare a GSP substantially compliant with DWR requirements. Our team's approach will develop a GSP based largely on existing data supplemented with a plan describing how the data gaps will be minimized in the future. This approach is being used by several GSAs to focus their GSP development efforts

on activities that will result in a substantially compliant GSP, but also provides DWR with a plan that describes how the data gaps will be addressed. GSAs are using this approach in the early stages of their formation when fiscal resources are limited and other financial sources (e.g., grants) have long lead times that can preclude their availability before the January 2022 deadline for GSP submittal to DWR; and

- » Identify Other Recommended Actions (some of these are provided in Task 16 in the proposal) that the GSA may want to consider performing so the resultant information can be included in the January 2022 GSP submittal.

✓ **Projects and Management Actions are Important**

- » Sustainable yields can be enhanced through the implementation of project and/or management actions;
- » Projects and management actions must be cost-effective; and
- » Stakeholders must be convinced of the cost-benefit relationship for proposed projects.

“ Tony was a valuable, eloquent and intelligent voice at a critical time when we were forming our GSA. Furthermore, Tony is a powerful advocate for water, committed to educating the community about the issues and implications around this new legislation and constantly thinking of creative projects and collaborations in order to maximize the opportunities SGMA now offers. ”

~Gordon Kimball, Attorney



Scope, Schedule and Budget

DBS&A's proposed schedule, budget, key assumptions, and descriptions of each task and their associated deliverables are provided below.

SCHEDULE

Our detailed schedule to perform the work in compliance with DWR deadlines is provided on Page 27. Our schedule shows the submittal of the GSP to DWR in the last quarter of 2021.

BUDGET

DBS&A has developed a not-to-exceed budget for accomplishing Tasks 1 through 15 outlined in our scope of work. Our budget is summarized on Page 28. A complete breakdown of each task with hours allocated to each labor category and all outside charges with a total cost of \$710,928 is provided on Page 29. Assumptions inherent in our proposed scope and cost are discussed below.

KEY ASSUMPTIONS

The DBS&A team has highlighted the following assumptions that are central to our proposal:

- ◆ The Inyo County Water Department issued the RFQ for this project and in the RFQ suggests that it is expected that the OVGA will take over this project. For the purposes of our proposal, we have assumed the OVGA is the entity responsible for this project and our proposal refers to OVGA as the primary GSP decision-making entity;
- ◆ Funding for this project is to come from the Prop 1 grant and is limited to the Prop 1 grant amount;
- ◆ The 400 square miles of land in the Basin covered by the Inyo/Los Angeles Long-Term Water Agreement is considered to be adjudicated for the purposes of GSP preparation and is, therefore, exempt from the process;
- ◆ The vast majority of the existing data in the Basin (e.g., groundwater elevation, water quality, stream flows, vegetation mapping) is available in a digital format. This assumption is valid as most of these data are expected to be provided by LADWP, Inyo County, Mono County, BLM, tribes, CADFW, USFWS, and other entities;
- ◆ Ecosystem evaluations will largely be restricted to desktop analyses using databases available from entities, such as LADWP, DWR, Inyo and Mono counties, tribal groups, and the Nature Conservancy (TNC). The TNC guidance document on assessing Groundwater Dependent Ecosystems (GDEs) will be a centerpiece in the evaluation of surface water - groundwater interactions and surface water depletion due to groundwater extractions. The inclusion of extensive field ecosystem mapping is beyond the scope of the budget for this initial GSP;
- ◆ Legal counsel in support of the GSP development process will be provided by OVGA and/or Inyo County;
- ◆ The existing groundwater models will be found to be adequate for use in the evaluation of the influence of future project and management actions on basin sustainable yield. The scope and budget needed to merge the models, standardize the base periods, incorporate more recent groundwater data, and recalibrate have not been included in this proposal.



5. Specialty Subconsultants

5.1. SUBCONSULTANT STAFF CAPABILITIES

As discussed above, DBS&A has engaged CCP, TEAM, Stillwater, and L&T as specialty subcontractors to support us through the duration of the contract. Each subcontractor's capabilities are described in detail below. Specific information requested in items 5.1 through 5.4 (i.e., staff capabilities, recent project experience, task and references) are integrated into Sections 1 through 4 above for ease of review.

CONSENSUS AND COLLABORATION PROGRAM



Established in 1992 as the Center for Collaborative Policy, the Consensus and Collaboration Program (CCP) is a fee-for-service, not for profit unit of the College of Continuing Education at California State University Sacramento.

CCP's mission is to build the capacity of Californians to use collaborative strategies to develop broadly supported, sustainable solutions to complex public policy challenges. CCP specializes in assessing, designing, and managing collaborative projects. Amongst many policy sectors that CCP serves, they are uniquely experienced in water resources having supported SGMA, the California Water Plan, Department of Water Resources (DWR) Water Use and Efficiency Program, the Drought Contingency Program, the Proposition 1 Water Storage Investment Program, the State Drinking Water Program, and the Irrigated Lands Regulatory Program.

CCP staff have exceptional content fluency in water policy. In this context, CCP has played a prominent role providing facilitation, mediation, governance, public engagement, and strategic advice services to support SGMA implementation. CCP has supported DWR and the SWRCB statewide public and tribal engagement

to share information, receive input, and cultivate relationships throughout the state. Through DWR and SWRCB SGMA Facilitation Support Services (FSS) programs, CCP has served over 30 GSAs statewide, supporting local public agencies, water suppliers, and other key groups to design and develop formal governance structures and legal agreements, enhance coordination and communication, resolve conflicts, build collaborative problem solving organizations, engage a broad spectrum of stakeholders, and lead the public engagement for numerous Groundwater Sustainability Plans (GSP). No other organization in California has more comprehensive in-house experience implementing SGMA than CCP. Local GSA and GSP support experience includes:

- ◆ Owens Valley Basin GSA
- ◆ Siskiyou County – Shasta Valley Basin GSA
- ◆ Siskiyou County - Butte Valley Basin GSA
- ◆ Siskiyou County – Scott Valley Basin GSA
- ◆ Shasta County - Enterprise / Anderson Subbasins GSA
- ◆ Colusa County GSA and GSP (Colusa Subbasin)
- ◆ Glenn County GSA and GSP (Colusa Subbasin)
- ◆ East Butte Subbasin GSA
- ◆ West Butte Subbasin GSA
- ◆ Wyandotte Creek Subbasin GSA
- ◆ Vina Subbasin GSA
- ◆ Yolo County Subbasin GSA
- ◆ Sonoma Valley GSA and GSP
- ◆ Santa Rosa Plan GSA and GSP
- ◆ Petaluma GSA and GSP
- ◆ Ukiah Valley Basin GSA
- ◆ Santa Margarita Groundwater Agency GSP
- ◆ Stanislaus SGMA Regional Groundwater Coordinating Committee
- ◆ Madera Subbasin GSP
- ◆ Chowchilla Subbasin GSP
- ◆ Kern County Subbasin GSA and GSP
- ◆ Turlock Subbasin GSA
- ◆ Kaweah Delta Subbasin GSA



- ◆ Mid Kaweah GSA
- ◆ Paso Robles Subbasin GSA
- ◆ Soquel-Aptos Basin Groundwater Management Committee and GSA
- ◆ Santa Maria Basin GSA (adjudicated)
- ◆ Santa Clara River Valley East Subbasin GSA
- ◆ Upper Ventura River Basin GSA
- ◆ San Luis Rey / Pauma Valley Basin GSA
- ◆ San Diego River Valley Basin GSA
- ◆ Borrego Valley Basin GSA and GSP

In addition to the above local GSA and GSP experience, CCP staff were advisors during the initial authoring of the law, with a specific invited focus on governance. CCP has provided a vast and successful range of SGMA support including subject matter expertise about the statute, outreach and engagement, conflict resolution governance design, and similar. CCP has supported almost all statewide public engagement for DWR and SWRCB in the implementation of:

- ◆ Initial statewide SGMA Information Sessions,
- ◆ the Basin Boundary Modification process,
- ◆ Basin Reprioritization,
- ◆ the Development of GSP Regulations, and
- ◆ the Fee Assessment Program.

CCP has designed and facilitated various SGMA training workshops for DWR and the Groundwater Resources Association (GRA) including GRAs Webcast SGMA series, the GRA Contemporary Groundwater Issues Council (of which Mr. Ceppos is also the public engagement representative specialist), and the recent Groundwater Sustainability Planning Workshop held as part of the GRA/DWR GSA Summit. Mr. Ceppos, CCP's SGMA Program Manager is a frequent guest lecturer and state-recognized SGMA expert, particularly regarding governance, implementation and stakeholder / beneficial user engagement. He has been a co-author of numerous academic journal articles regarding SGMA implementation, partnering with and published by Stanford University, University of California Agriculture and Natural Resources, and the Western Water Report.

TEAM ENGINEERING & MANAGEMENT, INC.

TEAM

ENGINEERING & MANAGEMENT, INC.
Bishop, California

was founded in 1987 in Bishop, California and has

served clients in the Eastern Sierra and the Owens Valley for more than 30 years. TEAM is a woman-owned, California-Certified Small Business. TEAM's professionals, the majority of which are long-time residents of Inyo and Mono Counties, provide a range of environmental, technical, engineering, and management consulting specialties. The firm's projects have included numerous groundwater monitoring projects in the Eastern Sierra, including projects for Inyo County, Mono County, Tri-Valley Groundwater Management District, Great Basin Unified Air Pollution Control District, Coso Operating Company, and Crystal Geyser Roxane. With a qualified and diverse staff located in Bishop and the Owens Valley, TEAM is uniquely positioned to add value and efficiency to a team of professionals for support to the Owens Valley Groundwater Authority and Inyo County for compliance with SGMA. TEAM will provide a local office and as-needed support to DBS&A as a key subcontractor for the preparation of the GSP. TEAM's vast experience with groundwater monitoring projects and land use in the Owens Valley and surrounding areas, as well as its understanding of the multiple stakeholders and unique jurisdictional relationships in the area, will provide significant value to the project team.

STILLWATER SCIENCES



Stillwater Sciences

Stillwater Sciences is a 65-person scientific consulting firm with specialists in geology, hydrology, engineering, aquatic and terrestrial biology, wetland and restoration ecology, water quality, and spatial analysis. Stillwater specializes in science-based technical approaches to water resource management and has been conducting hydrologic, geomorphic, riparian, and ecological studies for over 20 years. Their diverse expertise in watershed and river restoration includes decades of practical experience integrating hydrologic, geomorphic, riparian, and fisheries sciences throughout the western US. Stillwater's scientists have been actively engaged in evaluating hydrologic and



geomorphic characteristics of groundwater basins throughout California river systems, and provide a keen insight on habitat linkages to the overall aquatic ecosystem, including sensitive species and habitats. Stillwater staff use a combination of field data collection, field- and GIS-based modeling methods, and an array of analytical methods to help with issues such as project orientation and conceptual model development, determination of current site conditions, interpretations of past and predictions of future site conditions, and interdisciplinary problem-solving and project planning. Stillwater is leveraging this experience to understand the impacts of groundwater management on groundwater-dependent ecosystems (GDEs) throughout California. Stillwater's physical scientists routinely help answer client questions related to erosion risk assessment, regional planning, engineering design, landscape evaluation, restoration and mitigation opportunities, endangered species assessment, and clean water directives in support of basin-scale water resource management for water agencies and utilities. In addition to targeted field studies in the Tuolumne, Merced, Napa, Santa Clara, Sacramento, and San Joaquin rivers evaluating hydrologic impacts on riparian vegetation and aquatic species habitat, prey availability, and predation, Stillwater scientists played a key role in developing restoration objectives and strategies to support resilient hydrologic and ecological functions in the San Joaquin River downstream of Friant Dam as a precursor to the San Joaquin River Restoration Program, including analyses of riparian habitat establishment and groundwater resources, and in developing a monitoring and mitigation crediting system after Program implementation.

LECHOWICZ & TSENG MUNICIPAL CONSULTANTS



LECHOWICZ + TSENG
MUNICIPAL CONSULTANTS

Lechowicz & Tseng Municipal Consultants (L&T) is a women-owned, small business founded by Alison Lechowicz and Catherine Tseng. Areas of expertise include: financial plans, utility rate and fee studies, impact fee/capacity charge studies, public approval process, utility appraisal, and expert witness.

Ms. Lechowicz and Ms. Tseng have extensive experience assisting public agencies with Proposition 218 and 26 utility rate and fee studies. In response to SGMA, L&T are working with sustainability agencies to adopt groundwater management fees. Their experience includes utility rate setting, SGMA fees, special assessments, and the public approval process.

5.2. SUBCONSULTANT RECENT EXPERIENCE

Detailed project descriptions of recent work experience completed by our subconsultant team members are in Appendix B.

5.3. SUBCONSULTANT TECHNICAL

DBS&A has integrated the scope, not-to-exceed budget, schedule, labor category task breakdown, and assumptions associated with our subconsultants into Section 3 above. Inyo County and OWGA can expect a similarly seamless integration of DB&A's team work throughout the GSP process.



7. COI Disclosure

DBS&A has no financial, business or other relationships with the OVGGA or any OVGGA member(s) or the LADWP that may have an impact upon the outcome of the selection process of this project. In the interest of full transparency, the founder of our subconsultant, TEAM, is a CSD Board member.



OWENS VALLEY GROUNDWATER AUTHORITY

Big Pine CSD — City of Bishop — County of Inyo — County of Mono — Eastern Sierra CSD — Indian Creek-Westridge CSD — Keeler CSD —
Sierra Highlands CSD — Starlite CSD — Tri Valley Groundwater Management District — Wheeler Crest CSD

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Staff Report

Date: **9/13/18**

Subject: **DWR Technical Support Services General Application**

The Department of Water Resources (DWR) is offering Technical Support Services (TSS) to assist Groundwater Sustainability Agencies (GSAs) with the development of their Groundwater Sustainability Plans (GSPs). TSS's goal is to provide education, data, and tools to GSAs to build the capacity needed to achieve sustainability. TSS is available to GSAs through DWR's regional offices or contractors pending funding availability. Types of TSS services include: monitoring well installations, hydrologic monitoring training, bore hole video logging, and other field activity assistance.

Eligibility requirements include GSAs who are developing a GSP and agree to: share any data from the TSS with DWR and the public, comply with applicable laws, complete work in the agreed upon time frame, support DWR staff/contractors providing the service, and work in an open and inclusive manner. DWR will evaluate applications for TSSs on a continuous basis as funding allows. Applications are submitted through an online application system.

A TSS General Application collects information that applies to all GSAs located in the groundwater basin/subbasin; only one application per groundwater basin/subbasin is allowed. By submitting a TSS General Application for the groundwater basin/subbasin, the OVGA is volunteering to be the Groundwater Basin/Subbasin Coordinator for all TSSs located in the groundwater basin/subbasin. The TSS Application consists of providing basic information like groundwater basin and GSA applicant, contact information, other funding for technical services received (like IRWM or SGWP grants), and narrative related to GSP challenges and GSA collaboration efforts.

Staff recommends filling out the General Application as an initial step towards potential funding. If the application is accepted and potential funding still exists, staff (working with GSP contractors) would develop a list of potential TSSs to apply to DWR for funding.