San Gorgonio Pass Water Agency

DATE: February 14, 2022

TO: Board of Directors

FROM: Lance Eckhart, General Manager

BY: Lance Eckhart, General Manager

SUBJECT: RECOMMEND APPROVALS FOR GROUNDWATER SUSTAINABILITY PLAN CHANGE ORDER AND YEAR 1 ANNUAL REPORT PROPOSAL FOR THE SAN GORGONIO PASS SUBBASIN GROUNDWATER SUSTAINABILITY PLAN

RECOMMENDATION

Staff recommends the Board of Directors approve the anticipated change order costs for the San Gorgonio Pass Groundwater Sustainability Plan (GSP) and accept the proposal from Provost and Pritchard to prepare the first GSP annual report.

PREVIOUS CONSIDERATION

- Board of Directors – Various: The Agency has been working on the Groundwater Sustainability Plan since 2019.
- Board of Directors – July 13, 2020: Provost and Pritchard contract increase to $1,079,889 and discussion of cost-share agreement.

BACKGROUND & ANALYSIS

Provost & Pritchard was retained to develop the San Gorgonio Pass Subbasin Groundwater Sustainability Plan (GSP) for the region. This work was funded by a $1,000,000 grant via the California Department of Water Resources (DWR) Proposition 1 Integrated Regional Water Management Plan program. Development of the GSP has been more than a 2-year planning process that is associated with the 2014 Sustainable Groundwater Management Act. The GSP gives local resource managers a structure to cooperatively manage the groundwater basin(s) in the eastern portion of our service area.

As the primary regional entity and the GSP subbasin plan manager, the Agency has led planning efforts in the development of the GSP. It is expected the Agency will continue in this role during GSP implementation. Other member Groundwater Sustainability Agencies (GSA) who participate in the management of the GSP are as follows:

San Gorgonio Pass GSA Members

- San Gorgonio Pass Water Agency
- City of Banning
- Cabazon Water District
- Banning Heights Mutual Water Company

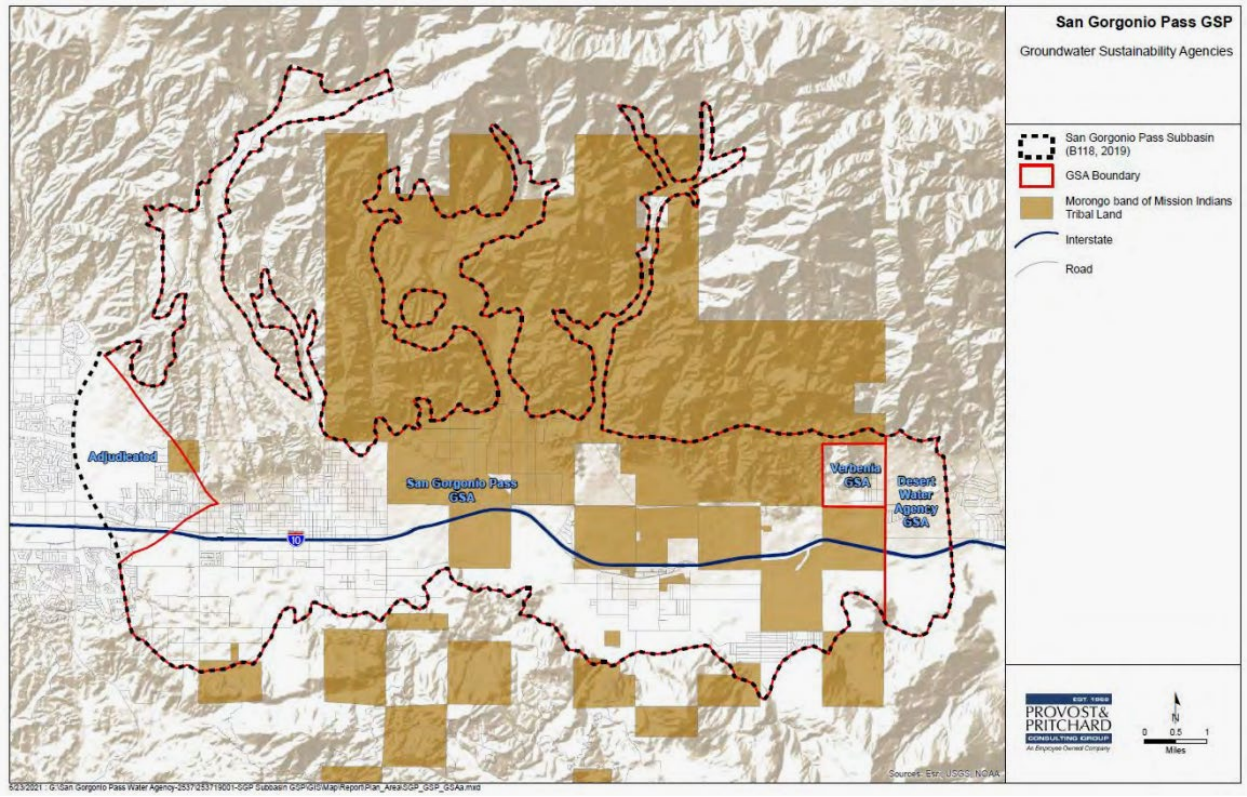
Verbenia GSA Members

- San Gorgonio Pass Water Agency
- Mission Springs Water District

Desert Water Agency GSA Member

- Desert Water Agency

Planning area and GSA entities within GSP



The final GSP has been submitted to DWR for review. Final costs associated with the GSP process are expected to be close to the previously approved budget but likely slightly over.

The first GSP Annual Report is due to DWR by April 1, 2022. A proposal from Provost and Pritchard for report preparation is attached. Provost and Pritchard is in a unique position to perform the work as they have just completed the GSP; this will be a sole-source contract.

FISCAL IMPACT

Costs for GSP activities are shared by the various member GSAs and their member agencies. Costs are shared through a Cost-Sharing Agreement. Costs are divided as follows:

The Shared Costs allocated among the Members as follows:

SGPWA:	5/15 of the shared costs or	33.333%
City of Banning:	2/15 of the shared costs or	13.333%
Banning Heights MWC:	2/15 of the shared costs or	13.333%
Cabazon Water District:	2/15 of the shared costs or	13.333%
Mission Springs Water District:	2/15 of the shared costs or	13.333%
Desert Water Agency:	2/15 of the shared costs or	13.333%
Total:	15/15 or	100.0%

Costs from the GSP consultant and sub-consultants are being finalized now that the project is mostly done. Estimated costs associated with the completion of the GSP project are expected to be no more than $30,000, slightly over the contracted amount of $1,079,889.

Costs associated with the first GSP annual report are estimated at $79,000.

The Agency will be responsible for 1/3rd of the costs with GSP finalization and the first GSP annual report. The remaining costs associated with the GSP and reporting will be paid by the other GSA member entities pursuant to the Cost-Sharing Agreement.

- Agency Cost GSP Finalization (estimated) - $10,000 maximum
- Agency Cost GSP Annual Report - $26,334

ACTION

Motion to approve the anticipated change order costs associated with the GSP finalization and accept the proposal from Provost and Pritchard to prepare the first GSP annual report.

ATTACHMENTS

- Request for Proposal – Sustainable Groundwater Management Act (SGMA) Annual Report Development for the San Gorgonio Pass Subbasin

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November 17, 2021

Lance Eckhart
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San Gorgonio Pass Water Agency
1210 Beaumont Ave,
Beaumont, CA 92223

Subject: Request for Proposal – Sustainable Groundwater Management Act (SGMA) Annual Report Development for the San Gorgonio Pass Subbasin

Dear Mr. Eckhart:

Thank you for the opportunity to submit Provost & Pritchard Consulting Group's (Provost & Pritchard) proposal for preparing the first Annual Report for the San Gorgonio Pass Subbasin's (SGP Subbasin or Subbasin) 2021 Water Year Annual Report. Our team processed the data for the Subbasin's water budgets, wrote the Groundwater Sustainability Plan (GSP), and are best qualified to efficiently prepare the Annual Report. There will be no "getting up to speed" for us. We have the historical data and we know the nuances behind water management in the Subbasin. The relationships we've developed while collaborating with the Subbasin's Groundwater Sustainability Agencies (GSAs) to prepare the GSP are valuable to us and will prove advantageous to the subbasin generally, in obtaining additional data from entities. Additionally, our collaboration with Houston Engineering, Inc on the data management system (DMS) will also facilitate efficient analysis of groundwater data for the Annual Report.

Our approach to preparing the Annual Report will follow similar methods used in the GSP. We will first request data from the members, perform quality assurance, and then perform analysis. Our technical staff will evaluate and interpret groundwater level and water use data. Collectively the findings will be incorporated into the Annual Report for submittal to DWR. Additionally, since this is the first time the DMS will be utilized in annual report preparation, we are excited to test the system to identify areas where the DMS could be tuned to streamline your future annual reports.

Project Understanding

The SGP Subbasin GSA, composed of San Gorgonio Pass GSA, Verbenia GSA, and Desert Water Agency GSA, desire to prepare and submit an Annual Report for the 2021 Water Year to comply with SGMA regulations. The Subbasin's GSAs have been coordinating to develop data since 2015 with the inception of SGMA. Since that time the agencies have formed GSAs and have proceeded to develop a GSP. In developing the GSP the multiple agencies have been providing the Provost & Pritchard team with an abundance of data for the group to analyze through 2019. The group has successfully gathered, organized, and processed all of this data to date. Now the time has come to develop the annual report which will provide a status report and include data from 2019 through the 2021. In the future, annual reports will only need to extend one water year; however, per DWR recommendation, the first annual reporting period is to pick up where the GSP's current period left-off. In the case of the SGP Subbasin's GSP, the current year was defined as the 2019 water year (October 1, 2018 through September 30, 2019).

Therefore, the 2021 water year annual report will cover both the 2020 water year and 2021 water year periods (October 1, 2019 through September 30, 2021).

While the Annual Report is the primary task, it should not be understated that this will also be the first time the DMS is put to use. Actual use of the DMS will inform the group of areas where the DMS could be improved to streamline the development of the Annual Report in future years.

It will be important to point out to DWR that this report will have data gaps similar to the GSP. We've identified data gaps in the GSP, and it is a first order of work by the GSAs to address filling the data gaps over the next few years. It is necessary to acknowledge that the largest spatial and temporal data gap falls within the Morongo Band of Mission Indian's (MBMI) jurisdiction within the SGP Subbasin; however, the federally recognized tribe is not required to submit data or disclose other information throughout the development and implementation of the GSP. Therefore, this data gap is expected to persist throughout the duration of the implementation period and estimations will continue to be made in-lieu of actual data.

Like most of the process of SGMA, the regulations have given us the guidelines, but have left it up to local agencies to interpret the specifics. Below is an extract of the SGMA § 356.2 requirements for the Annual Report:

> *Each Agency shall submit an annual report to the Department by April 1 of each year following the adoption of the Plan. The annual report shall include the following components for the preceding water year:*
>
> *a. General information, including an executive summary and a location map depicting the basin covered by the report.*
>
> *b. A detailed description and graphical representation of the following conditions of the basin managed in the Plan:*
>
> 1. *Groundwater elevation data from monitoring wells identified in the monitoring network shall be analyzed and displayed as follows:*
>
> *A. Groundwater elevation contour maps for each principal aquifer in the basin illustrating, at a minimum, the seasonal high and seasonal low groundwater conditions.*
>
> *B. Hydrographs of groundwater elevations and water year type using historical data to the greatest extent available to current reporting year.*
>
> 2. *Groundwater extraction for the preceding water year. Data shall be collected using the best available measurement methods and shall be presented in a table that summarizes groundwater extractions by water use sector, and identifies the method of measurement (direct or estimate) and accuracy of measurements, and a map that illustrates the general location and volume of groundwater extractions.*
>
> 3. *Surface water supply used or available for use, for groundwater recharge or in-lieu use shall be reported based on quantitative data that describes the annual volume and sources for the preceding water year.*
>
> *4. Total water use shall be collected using the best available measurement methods and shall be reported in a table that summarizes total water use by water use sector, water source type, and identifies the method of measurement (direct or estimate) and accuracy of measurements. Existing water use data from the most recent Urban Water Management Plans or Agricultural Water Management Plans within the basin may be used, as long as the data are reported by water year.*

5. Change in groundwater in storage shall include the following:

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

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

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

Project Approach

Task 1: Data Compilation

This task will begin with a brief review of data that was utilized in the GSP. Due to our familiarity with the subbasin, this will be a quick task, but an important one. After the initial data and information inventory, we will next request the remaining necessary data through 2021. This is a critical path item and must occur as a first order of work to not hold up the necessary analyses. The member entities will need at least 2-weeks to provide the data. During this time our team will provide ongoing communication to encourage and facilitate data retrieval. The request will come in a standard format (mimicking the DMS) so that when the data comes to us it will be ready for easy comparisons and upload into our system. Any new data that is received will be uploaded into the DMS on behalf of the member agencies[1]. It is possible that much of the data is already inventoried to support the DMS development during the GSP process.

It is assumed that data associated with the DMS will be provided by the agencies (e.g. water level readings at representative monitoring sites). Since all the data in the DMS is related to tracking the Sustainable Management Criteria's (SMC) Interim Milestones (IM), Measurable Objectives (MO) and Minimum Thresholds (MT), we will need to seek additional data from members. For example, other data such as water level readings that are part of a member's supplemental network[2] will be requested from each entity in a standard format.

Also, we believe the best approach to determining groundwater extraction in the data gap areas is to perform estimations based on historic and projected water use assumptions developed during the GSP's water budget analysis.

All the water level data will need to be plotted to understand spatial and temporal distribution of data, so that a supplement data request can be prepared as needed. This includes plotting on a map the spring (seasonal high) and fall (seasonal low) data for 2020 and 2021, as well as updating the hydrographs. A spring 2019 contour map has been developed; however, a fall 2019 contour map will also be needed for this annual report in addition to the 2020 and 2021 maps.

[1] Member agencies refers to the various water districts, agencies, municipalities, and other organizations that compose each respective GSA.

[2] Supplemental network refers to all data outside of the representative monitoring network for the GSP.

Next, we will review the quality of the data. This will be done by comparing current to historic data that was previously provided during GSP development and identifying any outliers or data gaps. At this point, individual members will be consulted to clarify and resolve any issues.

As expressed previously, the DMS is likely to house data as recent as 2021 from those member agencies who provided it during the GSP development.

Deliverables

- Tabular groundwater level data for 2020 through 2021 water years
- Tabular groundwater quality data for 2020 through 2021 water years (for representative monitoring sites)
- Tabular water use data for 2020 through 2021 water years (surface water and groundwater)

Task 2: Analyze and Interpret Hydrogeologic Data

After the available data is collected and organized, we will then begin performing the necessary evaluations of the data. The first step will be utilizing GIS software and processes to create first-draft spring (seasonal high) and fall (seasonal low) contour maps of the upper and lower aquifer through fall of 2021. Our team will then review and adjust as necessary, identifying areas of uncertainty with dashed contours. As was encountered during GSP development, the data gap areas of the northern Banning Subunit and the MBMI will be challenging to contour. An attempt will be made; however, we may need to concede to DWR that these are data gaps and reiterate our plan to fill the gap in the northern Banning Subunit and the expected chronic data gap within the MBMI lands.

Annual change in storage calculations will be performed next. To do so, the spring contour maps discussed above will be compared. As with the GSP, the spring contours of one year will be compared to the spring contours of the subsequent year. Using GIS processes developed during GSP development, the software will overlay contour layers on specific yield values to solve for available water. The difference between the two years is the change in storage of the upper aquifer.

There is a chance that the contours will not have sufficient spatial coverage to analyze change in storage. In that case, hydrographs of wells across the subbasin will be analyzed to assess the annual change during seasonal high periods. The specific yield of the underlying aquifer conditions will be applied to that change to estimate a change in storage for the 2020 water year and the 2021 water year.

While analyzing change in storage, the reporting requirements ask to graphically present the water year type changes in relation to change in storage. A graphical figure will be developed showing historic and current water year types and change in storage, building off of similar figures developed for the GSP.

For each representative groundwater level monitoring site, a hydrograph will be prepared illustrating current and historic values in relation to their respective MO and MT. The GSP recognizes groundwater level as a proxy to evaluate the MO and MT for change in aquifer storage across the subbasin and interconnected surface water for the representative monitoring wells in the Banning Canyon.

In addition, the most recent groundwater quality data from the representative groundwater quality monitoring sites will be organized tabularly with comparisons to the MO and MT. The

monitoring frequency for groundwater level data is 3 years; therefore, it is likely that no new data will be available from the 2020 and 2021 water year periods.

Subsidence and seawater intrusion are not applicable to the SGP Subbasin; therefore, will not be analyzed for this annual report.

Deliverables

- Annual fall (seasonal low) water level maps (2019, 2020 and 2021 water years)
- Annual spring (seasonal high) water level maps (2020 and 2021 water years)
- Calculated change in storage (2020 and 2021 water years)
- Annual spring-to-spring change in storage maps (2020 and 2021 water years)
- Hydrographs related to each SMC at each Representative Monitoring Site
- Evaluation memo regarding DMS utilization in Annual Report preparation (Preliminary Draft)
- Graph of water year type over time

Task 3: Extraction Evaluation

Reporting groundwater extractions will require summing extraction information that has historically been measured by the various member agencies, since most of the production wells are metered in recent years. In addition, estimates will need to be made in the data gap areas of the northern Banning Subunit and MBMI lands.

For this to be cost-effective our team will rely on the assumptions and distributions of water used in the GSP development for data gap areas and to perform quality control on the summations of the summed metered data. It is our assumption that each member is comfortable with their existing water budget, and that significant re-evaluations will not be necessary for the areas of estimated groundwater extractions.

Since the data is collected at a member agency level, we propose to organize extractions to that same level; however, the final report will sum either by GSA or subbasin level, dependent on the GSAs preference.

The annual reporting requirement is that water use is reported in relation to specified service sectors (see below). To maximize accuracy of reporting, coordination with member agencies will be critical to better understand the service sectors that their wells serve. Based on data developed for the GSP, it is expected that the majority of the water use in the subbasin would fall under municipal and industrial.

In addition to reporting groundwater extractions, surface water use by service sector is also to be provided. Coordination with Banning Heights Mutual Water Company will be needed to estimate any surface water used or available for use during the 2020 and 2021 water years. It may be the case that no surface water was available due to the Apple Fire’s damage to the surface water conveyance infrastructure.

Water Use Sectors to be considered include:

- Agricultural
- Municipal and Industrial
- Environmental
- Native Vegetation

Deliverables

- Summary of water use by sector, noting measurement technique and accuracy
- Graph depicting water year type, groundwater use, the annual change in groundwater in storage, and the cumulative change in groundwater storage

Task 4: Annual Report Preparation

This task will be the culmination of all the data collected, analyses performed, and interpretations made in Tasks 1-3. Here we will organize and describe deliverables into a coherent and comprehensive annual report.

This task will also include a project management component to allow for open communication between the project manager and the GSAs, as well as providing monthly updates to GSP Group committee meetings.

We will prepare and provide a draft Annual Report for review by February 28, 2022. We anticipate reaching out to members throughout the process, with the intent of keeping everyone informed, mitigating any surprises, and expediting the review.

Below is a description of what we intend to address in each chapter of the Annual Report. The exact organization of this material may be revised before finalization of the Annual Report.

Executive Summary: A concise statement of what is in the Annual Report. This will be the final portion prepared after each chapter is complete

Chapter 1 – Introduction: The intent is to pull most of the information from the recently completed GSP (e.g., maps, figures, description of the basin). A discussion will be provided of how subsequent data had been collected and utilized in the later chapters

Chapter 2 – Groundwater Elevation Data: For each deliverable described in Task 2, a narrative will be provided followed by the relevant figure/table.

Chapter 3 – Water Supply and Use: For each deliverable described in Task 3, a narrative will be provided followed by the relevant figure/table.

Chapter 4 – Plan Implementation: While it may not be expected, the GSAs have made progress toward implementing the GSP; and that needs to be highlighted. Member entries have begun to shift their thinking on how water is managed. This has resulted in a concerted effort to identify projects and management actions and strengthen coordination by the member agencies. Other activities have occurred too, such as identifying ways to mitigate data gap areas (where resolution is possible). To capture these successes, a discussion of progress towards implementation will be communicated in the Annual Report.

We should note that we will follow the format provided in the GSP and adjust during the process while working with the members. Recognize however, that DWR has a 'portal' where we will be required to submit this data in their standardized templates. Considering the anticipated DWR's web-based reporting, we have allocated time in the budget and schedule to allow for upload.

Deliverables

- Draft Progress Towards Implementation Language
- Draft Annual Report
- Final Annual Report
- Submission to DWR web-based submittal site
- Final Draft Evaluation memo regarding DMS utilization in Annual Report preparation

Project Budget

Proposed Fee – Annual Report Development	
Phase	**Estimated Fee**
Task 1 – Data Compilation	$18,600
Task 2 - Analyze and Interpret Hydrogeologic Data	$8,100
Task 3 – Extraction Evaluation	$21,500
Task 4 – Annual Report Preparation	$30,800
Total Estimated Fee:	**$79,000**

Schedule

Proposed Schedule	2021			2022		
Phase	**Nov.**	**Dec.**	**Jan.**	**Feb.**	**Mar.**	**Apr.**
Contract Award & Execution						
Task 1 – Data Compilation						
Task 2 - Analyze and Interpret Hydrogeologic Data						
Task 3 – Extraction Evaluation						
Task 4 – Annual Report Preparation						

We look forward to continuing our relationship with the San Gorgonio Pass Subbasin to comply with this complex legislation. We have been living and operating in ground-zero for SGMA and have a personal interest in the success of our clients. If you have any questions, or if you would like any additional information as you review our qualifications, please contact me at (559) 326-1100 or email terlewine@ppeng.com.

Respectfully

Terry Erlewine, PE
Project Manager

Linda G. Sloan PG/CHG
Vice President