

Task Order for Professional Engineering Services

To: Brandon Tomlinson
General Manager
Chowchilla Water District

From: Davids Engineering, Inc.

Date: 12/11/2024

Project name: Chowchilla Subbasin GSP Annual Reports

Project #: 1183.05

Task name: Water Year 2024 GSP Annual Report

Task order #: 03

Davids Engineering, Inc. (DE or CONSULTANT) is pleased to provide this proposal to Chowchilla Water District (CLIENT) to assist the Groundwater Sustainability Agencies (GSAs) in the Chowchilla Subbasin with the development of the Groundwater Sustainability Plan (GSP) Annual Report for water year 2024 (October 2023 through September 2024). Pursuant to the Task Order Agreement for Professional Services between CLIENT and CONSULTANT dated 09/19/2022 CLIENT desires and CONSULTANT agrees to perform the professional services according to the following terms.

1 Task Order Overview and Objective

According to the GSP regulations, as outlined in the California Code of Regulations Title 23 (23 CCR) §356.2, Annual Reports must be prepared and submitted to the California Department of Water Resources (DWR) by April 1 of each year following the adoption of the GSP. The next GSP Annual Report is required to be submitted by April 1, 2025. This scope of work will prepare the Chowchilla Subbasin GSP Annual Report for water year 2024 (October 2023 through September 2024) in compliance with all of the requirements of 23 CCR §356.2. This effort will require analyses and data for each GSA (e.g., surface water use by a particular GSA), as well as analyses for the entire Chowchilla Subbasin (e.g., estimating the change in groundwater storage). The GSP Annual Report will provide the following general information about the Chowchilla Subbasin, in addition to supporting technical information required by 23 CCR §356.2:

- Groundwater elevation data from monitoring wells
- Hydrographs of groundwater elevations
- Total groundwater extractions for the prior water year
- Surface water supply used or available for use in the prior water year, including for groundwater recharge or other in-lieu uses
- Change in groundwater storage
- Progress towards implementing the GSP

- Additional requested information identified by DWR in their review of the water year 2023 annual reports for other subbasins in the San Joaquin Valley, including:
 - Additional information related to monitoring.
 - Additional information related to progress towards implementing the GSP (i.e., explaining groundwater conditions in relation to sustainable management criteria, and projects and management actions to achieve the sustainability goal).
 - Additional information related to effects to beneficial uses and users of groundwater.

2 Task Order Approach

Pending DWR review and feedback on the Chowchilla Subbasin GSP Annual Reports, this scope and budget assumes that the general approach and content of the GSP Annual Reports prepared to date are deemed generally adequate by DWR, with the exception of additional requested information identified by DWR in their review of the water year 2023 annual reports for other subbasins in the San Joaquin Valley. It is assumed that no substantial changes to the analyses and reporting are required, except for additional explanation requested by DWR.

The following tasks provide a general description of what information will be provided in the Annual Report and the work that will be performed to complete the Annual Report. The Annual Report provided to DWR will fully comply with the requirements of 23 CCR §356.2, and will be submitted by the April 1, 2025, deadline.

3 Task Order Description

3.1 Scope of Services

The scope of professional services to be performed by Davids Engineering and Luhdorff & Scalmanini Consulting Engineers (the DE-LSCE Team) is organized into five tasks, as described below:

Task 1. Prepare General Information, Including an Executive Summary and a Map of the Chowchilla Subbasin Location.

General information provided in the Annual Report will include an executive summary that highlights the key content of the Annual Report. This content will include a description of the Chowchilla Subbasin sustainability goals and provide a concise description of the annual groundwater conditions and water budget components, GSP projects and management actions implemented, progress towards interim milestones, an updated implementation schedule, and a map of the Chowchilla Subbasin. Any important changes or updates with regard to water use, the basin setting, or information supporting the measurable objectives, minimum thresholds, and undesirable results defined in the GSP will be noted and described.

Task 2. Prepare a Detailed Description and Graphical Representation of Groundwater Conditions and Water Budget Components Managed in the Chowchilla Subbasin.

For this task, a complete water budget of the GSP area is necessary and will be completed to describe the annual groundwater conditions and water budget components required in the Annual Report. The

subtasks are budgeted to complete a full Chowchilla Subbasin water budget for water year 2024 for the GSP Annual Report.

Subtask 2.1. Develop groundwater elevation data, including groundwater elevations for Representative Monitoring Sites (RMS) included in the GSP monitoring network.

Subtask 2.1.1. Develop groundwater elevation contour maps.

Groundwater elevation contour maps will be prepared for each principal aquifer for seasonal high (Spring 2024) and low (Fall 2023) conditions during water year 2024 using data from RMS wells in conjunction with consideration of any supplemental groundwater elevation data available from other (non-GSP) monitoring programs.

Subtask 2.1.2. Develop hydrographs of groundwater elevations and water year type.

Hydrographs from January 1, 2015, through water year 2024 will be prepared for available RMS wells.

Subtask 2.2. Develop groundwater extraction data for the preceding water year, including a summary by water use sector, a description of measurement methods and accuracy, and a map showing the location/volume of extractions.

Total groundwater extractions will be summarized by water use sector (in tabular and map form), and the method and accuracy of the measurements will be identified (distinguishing volumes recorded by metered groundwater pumps and volumes estimated by crop evapotranspiration) in the format requested by DWR. All data and methods used to characterize groundwater extractions will be based on the best available measurement methods and best available science, and will be described in the Annual Report.

Subtask 2.3. Calculate surface water supply used or available for use, including that used for groundwater recharge and in-lieu use.

The volume of surface water supply used or available for use will be summarized for the GSP area. All surface water supply used in the Chowchilla Subbasin will be reported based on annual quantitative volumetric data in the format requested by DWR, and will identify all applicable water source types for each GSA.

Subtask 2.4. Calculate total water use, summarized by water use sector and water source type, including a description of the measurement method and accuracy.

The water budgets for the four GSAs will be completed for water year 2024, and total water use tables will be developed by water use sector and water source type in the format requested by DWR. Water use data will be collected using the best available measurement methods. The method and accuracy of measurements will be described.

Subtask 2.5. Calculate change in groundwater storage.

Subtask 2.5.1. Develop change in groundwater storage maps for each principal aquifer for the period Spring 2023 to Spring 2024.

Groundwater level data from RMS and other appropriate monitoring network wells will be used to develop groundwater storage change maps for the Upper/Unconfined Aquifer and the Lower Aquifer (where present) for water year 2024. In accordance with GSP regulations, these maps will represent

changes in groundwater storage between springtime periods from Spring 2023 to Spring 2024. The resulting groundwater storage change maps will be reviewed in light of climatic and surface water supply conditions that occurred over the 2023 to 2024 time frame.

Subtask 2.5.2. Develop graph showing water year type, groundwater use, annual change in storage, and the cumulative change in storage (including from October 1, 2014, through water year 2024) based on surface system water budget analyses.

A graph showing water year type, groundwater use, annual change in storage, and the cumulative change in storage (including from October 1, 2014, through water year 2024) will be developed based on the surface system water budget analyses. The groundwater storage change maps prepared under Subtask 2.5.1 will be reviewed in combination with water year type, surface water availability and groundwater use, and longer term cumulative change in storage to evaluate recent groundwater conditions through water year 2024.

Task 3. Prepare a Description of Progress Towards Implementing the GSP.

This task will summarize all applicable information to describe progress towards implementing the Chowchilla Subbasin GSP, with particular focus on activities since the previous Annual Report. This task will include the following items, consistent with the GSP regulations and requests from DWR in their review of the water year 2023 annual reports for other subbasins in the San Joaquin Valley:

- Information related to monitoring.
- Information related to groundwater conditions in relation to the sustainable management criteria for all applicable sustainability indicators.
- Information related to implementation of projects and management actions to achieve the sustainability goal.
- Information related to effects to beneficial uses and users of groundwater.

A summary of the GSP revisions and GSA discussions with SWRCB staff in 2023-2024 will also be provided.

Task 4. Prepare the Annual Report Containing All Components Required by DWR as Stated in the GSP Regulations (Table 1).

In accordance with the GSP regulations, the DE-LSCE Team will prepare all of the required GSP Annual Report submittals, including an Annual Report document along with a copy of the GSP monitoring data.

Subtask 4.1. Prepare draft and final Annual Report.

A draft Annual Report will initially be prepared using information received from the GSAs and the results of the other tasks in this task order. Following review and feedback from GSAs, the DE-LSCE Team will revise the draft Annual Report and prepare the final Annual Report in a format suitable for submittal to DWR through the SGMA Portal.

Subtask 4.2. Submit copy of the monitoring data.

A copy of the monitoring data collected from all available RMS sites will be submitted to DWR through the SGMA Portal Monitoring Network Module.

Task 5. Perform Other General Services, As Requested (Optional).

This task encompasses additional general services that may be identified and requested by the GSAs during and following preparation of the GSP Annual Report. Such services may include: interbasin coordination; participation in Basin Point of Contact (POC) meetings; support for implementation of the Domestic Well Mitigation Program; further data review and analyses related to water quality, groundwater dependent ecosystems (GDEs), and monitoring network data gaps; completion of DWR data requests; and/or other items as requested by the GSAs.

Table 1. Summary of GSP Annual Report Requirements and Associated Tasks.

GSP Regulations (23 CCR) Section	Description	Task(s) to Fulfill Requirements
§356.2	Submit an Annual Report to DWR by April 1 that includes the following components for the preceding water year:	4
(a)	General information, including an executive summary and a location map depicting the subbasin covered by the Annual Report.	1
(b)	Detailed description and graphical representation of the conditions of the subbasin managed in the GSP:	2
(b)(1)	Groundwater elevation data (contour maps, hydrographs)	2.1
(b)(2)	Groundwater extraction data (table, map)	2.2
(b)(3)	Surface water supply used or available for use, groundwater recharge, or in- lieu use	2.3
(b)(4)	Total water use	2.4
(b)(5)	Change in groundwater storage (maps, graph)	2.5
(c)	Description of progress toward implementing GSP, achieving interim milestones, and implementing projects or management actions since the previous Annual Report.	3, 5
§354.4	Include a copy of the monitoring data from the Data Management System in the Annual Report	4.2

3.2 Deliverables

The following deliverable(s) will be provided to the Chowchilla Subbasin GSAs:

1. Draft GSP Annual Report, prepared and submitted to the GSAs for review.
2. Final GSP Annual Report, revised per comments from the GSAs and submitted to DWR.
3. A copy of the monitoring data for the GSP Annual Report reporting period, included in the Annual Report submittal to DWR.
4. Other work products identified as part of Optional Task 5 and as mutually agreed to by the DE-LSCE Team and the GSAs.

3.3 Assumptions

The following assumptions were made in developing this proposal. To the extent that these assumptions do not hold true, the effort and therefore the cost and schedule required to perform the professional services could be affected.

1. CLIENT will work cooperatively with the DE-LSCE Team and will respond in a timely manner to the DE-LSCE Team's information requests.
2. The DE-LSCE Team will not be responsible for providing any legal advice, legal guidance and/or legal opinions.
3. CLIENT will be the lead for all stakeholder outreach, as required.
4. All meetings will be held remotely, with the exception of one in-person meeting to present the Draft GSP Annual Report to the GSP Advisory Committee.
5. There will be one round of comments and revisions for the GSP Annual Report.
6. The GSP Annual Report deliverables will be provided in digital format according to the formats required by DWR.
7. The cost of Optional Task 5 is based upon the DE-LSCE Team's best understanding of future professional services that may be required by the GSAs at the time this proposal was prepared. It is assumed that CLIENT and DE will evaluate any differences in the estimated cost and the actual cost, if required.
8. Project work required and/or requested by CLIENT which is not covered in this proposal shall be paid for by CLIENT on a time and materials basis at the applicable DE-LSCE Team rates then in effect.
9. The DE-LSCE Team cannot guarantee approval of the Annual Report by DWR.

3.4 Schedule

A preliminary timeline for tasks described in the proposed draft scope of work for preparation of the GSP Annual Report is presented below (Table 2). This schedule provides time for GSA review of the draft documents and finalization and submittal of the GSP Annual Report by April 1, 2025, in accordance with SGMA requirements.

Table 2. Task Order Preliminary Timeline.

Tasks		2024	2025			
		Dec	Jan	Feb	Mar	Apr
Task 1.	Prepare general information, including an Executive Summary and a map of the Chowchilla Subbasin location.					
Task 2.	Prepare a detailed description and graphical representation of groundwater conditions and water budget components managed in the Chowchilla Subbasin.					
Task 3.	Prepare a description of progress towards implementing the GSP.					
Task 4.	Prepare the Annual Report containing all components required by DWR as stated in the GSP regulations.					
Task 5.	Perform other general services, as requested (Optional).	<i>As requested through September 30, 2025.</i>				
Key Milestones:	Required data will be requested and received from the GSAs by December 31, 2024. Draft Annual Report will be submitted to the GSAs for review by March 3, 2025. Comments will be received from the GSAs by March 14, 2025. Final Annual Report will be ready for submittal by March 28, 2025.					

3.5 Cost Proposal

The DE-LSCE Team costs associated with performing this task order will be billed to the CLIENT on a time and materials basis not to exceed the selected task totals without prior written authorization.

The task totals include:

- **Tasks 1-4: \$63,760** for developing and submitting the GSP Annual Report for water year 2024, including reviewing and assessing subsidence monitoring data, and
- **Optional Task 5: \$30,000** for other general services, as needed.

The budget build-up is summarized in the cost summary table below (Table 3), including estimated person-hours by task, along with 2024 hourly rates by labor classification. Hourly labor rates are subject to revision at the beginning of each calendar year, but the estimated budget will remain the same. While estimated costs are based on a detailed task-by-task buildup, actual project costs will not necessarily be tracked on a task basis, nor will individual task budgets constrain charges for work performed up to the total estimated budget.

Table 3. Task Order Cost Summary.

Water Year 2024 GSP Annual Report													
Project Task/Subtask	Labor Costs									Labor Costs Subtotal (\$)	Direct Costs		Total Cost (\$)
	DE Principal Engineer	DE Associate Engineer I	DE Staff Engineer I	DE Assistant Engineer I	DE Staff Project Assistant	LSCE Senior Principal	LSCE Principal Professional	LSCE Project Professional	LSCE Word Processing		Current IRS Mileage (\$ / mile)	Direct Costs Subtotal (\$)	
	Hourly Rates										Unit		
	\$249	\$188	\$163	\$121	\$94	\$265	\$255	\$190	\$110		\$0.670		
Task 1 - Prepare General Information.													
1.1 Prepare General Information.	2	2	1	1	2	2	2	3		\$2,956			\$2,956
Task 1 Subtotals	2	2	1	1	2	2	2	3		\$2,956			\$2,956
Task 2 - Prepare a Detailed Description and Graphical Representation of Groundwater Conditions and Water Budget Components.													
2.1 Develop Groundwater Elevation Data						4	8	26		\$8,040			\$8,040
2.2 Develop Groundwater Extraction Data	8	12	4	2	2					\$5,330			\$5,330
2.3 Calculate Surface Water Supply Used or Available for Use	4	8	4	2	2					\$3,582			\$3,582
2.4 Calculate Total Water Use	4	8	4	2						\$3,394			\$3,394
2.5 Calculate Change in Groundwater Storage						4	4	10		\$3,980			\$3,980
Task 2 Subtotals	16	28	12	6	4	8	12	36		\$24,326			\$24,326
Task 3 - Prepare a Description of Progress Towards Implementing the GSP.													
3.1 Prepare a Description of Progress Towards Implementing GSP	4	12	4	4	4	12	16	28		\$17,344			\$17,344
Task 3 Subtotals	4	12	4	4	4	12	16	28		\$17,344			\$17,344
Task 4 - Prepare the Annual Report Containing All Components Required by DWR as Stated in the GSP Regulations.													
4.1 Prepare Draft and Final Annual Report	4	24	4	4	8	14	12	21	3	\$18,486	400	\$268	\$18,754
4.2 Submit Copy of the Monitoring Data								2		\$380			\$380
Task 4 Subtotals	4	24	4	4	8	14	12	23	3	\$18,866	400	\$268	\$19,134
Task 5 - Perform Other General Services, As Requested (Optional).													
5.1 Perform Other General Services, As Requested	<i>As requested through September 30, 2025.</i>									\$30,000			\$30,000
Task 5 Subtotals										\$30,000			\$30,000
Total, GSP Annual Report (Tasks 1-4)	26	66	21	15	18	36	42	90	3	\$63,492	400	268	\$63,760
Grand Total (Tasks 1-5)	26	66	21	15	18	36	42	90	3	\$93,492	400	268	\$93,760

4 Task Order Signatures

Approved for CLIENT

Signed: _____

Name: _____

Title: _____

Date: _____

Accepted for Davids Engineering, Inc.

Signed: _____

Name: _____

Title: _____

Date: _____