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October 3, 2022

SENT VIA: EMAIL

Brian Macy
Assistant General Manager
Mission Springs Water District
66575 2nd Street
Desert Hot Springs, CA 92240

SUBJECT: Proposal for Regulatory Support Services for the Mission Springs Water District to Prepare a TDS Impact Evaluation Work Plan for the Horton Water Reclamation Facility Pursuant to Order R7-2022-0008

Dear Mr. Macy:

Pursuant to your request, West Yost has prepared this letter proposal to provide the Mission Springs Water District (MSWD) with a proposed scope of services, budget, and schedule to prepare a Total Dissolved Solids (TDS) Impact Evaluation Work Plan (Work Plan) pursuant to Order R7-2022-0008 for the Horton Wastewater Treatment Plant (WWTP).

BACKGROUND

MSWD is owns and operates the Horton WWTP, where it collects, treats and discharges wastewater. The wastewater is treated through secondary treatment and the secondary-treated effluent is discharged to eight percolation ponds located on-site. The discharge is regulated pursuant to waste discharge requirements issued by the Colorado Regional Water Quality Control Board (Regional Board), which was recently updated under Order No. R7-2022-0008 (Permit).

Pursuant to Section G of the Permit (*Special Provisions*), MSWD is required to submit to the Regional Water Board's Executive Officer for review and approval two technical reports:

1. TDS Impact Evaluation Report and Work Plan. The Work Plan must include a time schedule to:
    i. Monitor groundwater and determine background concentration for TDS in the area of discharge from the Horton WWTP.
    ii. Determine if wastewater discharged to the infiltration basins is causing or contributing to the increased TDS levels in areal groundwater.
    iii. Ensure that any proposed effluent limitations for TDS does not cause an exceedance of the receiving water limitations for groundwater.

    The technical report may include:

    i. An evaluation of the local hydrogeology.
    ii. Identification of sources of TDS loading that could influence local TDS concentrations in groundwater.

iii. A proposal to install groundwater monitoring wells to further evaluate the impact of the discharge to the infiltration basins.

2. Nitrogen Control Strategy Technical Report. The Report will include:

   i. A work plan to achieve an effluent limitation for total nitrogen of 10 milligrams per liter (mgl) or lower of treated wastewater discharged to the ponds.

   ii. A time schedule for any WWTP improvements of other activities necessary to achieve the effluent limitation.

This letter describes a proposed scope of services, budget, and schedule to prepare the TDS Impact Evaluation Work Plan. This effort will leverage the *Workplan to Develop the Coachella Valley Salt and Nutrient Management Plan* [CV-SNMP].[1] The objective of the CV-SNMP will be to sustainably manage salt and nutrient loading in the Coachella Valley Groundwater Basin (Basin) in a manner that protects its long-term beneficial uses. The workplan included a regional groundwater monitoring program that described: the initial sampling network of wells; the spatial and vertical gaps in the monitoring network; how the gaps will be filled; and the sampling and analysis protocols. TDS and nitrogen are the main chemical parameters that will be monitored.

SCOPE OF SERVICES

The following is a list of the key tasks necessary to perform the proposed Scope of Services, each further described below:

- Task 1. Project Kickoff/Collect Data and Reports
- Task 2. Describe the Current Physical Setting
- Task 3. Describe Monitoring and Reporting Program
- Task 4. Prepare TDS Impact Evaluation Work Plan
- Task 5. Ad Hoc Meetings and Project Administration

Task 1. Project Kickoff/Collect Data and Reports

The objectives of this task are to:

1. Achieve consensus on the objectives and outline of the final Work Plan.
2. Compile and review all readily available reports, data, and information necessary to complete the Work Plan.

The main activities of this task include:

- West Yost will prepare a draft outline of the Work Plan and submit the outline to the MSWD for review and comment.

[1] West Yost Associates, Inc. 2021. *Workplan to Develop the Coachella Valley Salt and Nutrient Management Plan*. Prepared for the Coachella Valley SNMP Agencies. September 2, 2021.

- West Yost will prepare for and lead a project kickoff meeting. The agenda for the kickoff meeting will be (i) the objectives and outline of the final Work Plan; (ii) the schedule to complete the Work Plan; and (iii) the reports, data, and information necessary to complete the Work Plan.
- West Yost will collect, review, and compile reports, data, and information necessary to complete the Work Plan.
- West Yost will finalize the outline of the Work Plan and submit the outline to MSWD.

Task 1 Assumptions

- Client will prepare for and attend the kickoff meeting.
- Client will review and provide comments on the draft outline of the work plan.
- Client will assist West Yost in identifying and compiling the reports, data, and information.

Task 1 Deliverables

- Draft and final outline of the Work Plan.

Task 2. Describe the Current Physical Setting

The objective of this task is to characterize the physical setting of the groundwater basin in the vicinity of the Horton WWTP —particularly for those factors that influence the local TDS concentrations in groundwater, such as: the structure and composition of the aquifer system; the occurrence and movement of groundwater; and the origin, transport, and fate of TDS in groundwater.

The main activities of this task include:

- West Yost will prepare data graphics to describe the physical setting in the vicinity of the Horton WWTP, including:
  - A map of: surface geology; groundwater basin and subbasin boundaries; the location of the Horton WWTP and its percolation ponds; other local sources of TDS loading; the locations of production and monitoring wells; groundwater elevations and flow directions; and the current TDS concentrations in groundwater.
  - Two hydrogeologic cross sections that display the subsurface structure and composition of the aquifer system, groundwater levels and flow directions, and TDS concentrations in groundwater.
  - Time-series charts of TDS concentrations at wells.
- West Yost will prepare draft text to describe the physical setting in the vicinity of the Horton WWTP. The text will reference the data graphics prepared in this task and will rely on past work and reports collected in Task 1.

Task 3. Describe Monitoring and Reporting Program

The objective of this task is to develop a monitoring and reporting program that will satisfy the requirements of Section G.1. of the Permit (*Special Provisions—TDS Impact Evaluation Work Plan*). Specifically, these requirements include:

i. Monitor groundwater and determine background concentration for TDS in the area of discharge from the Horton WWTP.

ii. Determine if wastewater discharged to the infiltration basins is causing or contributing to the increased TDS levels in areal groundwater.

iii. Ensure that any proposed effluent limitations for TDS does not cause an exceedance of the receiving water limitations for groundwater.

The main activities of this task include:

- West Yost will prepare a map of the monitoring locations. The map will be based on the map of the physical setting prepared in Task 2.
- West Yost will prepare draft text and tables to describe the monitoring locations, chemical analytes, frequency of sampling, and protocols for laboratory analyses and data reporting.
- West Yost will prepare draft text to describe the process for annual reporting of results, interpretations, and recommendations. The interpretations in the annual report will address all three requirements listed above. The recommendations in the annual report will address any adaptations to the monitoring and reporting program that are necessary to satisfy all three requirements listed above.

The development of this monitoring and reporting program will leverage the groundwater monitoring program of the CV-SNMP, as well as the development and implementation of the CV-SNMP itself, to the maximum extent possible.

Task 4. Prepare TDS Impact Evaluation Work Plan

The objective of this task is to prepare the *TDS Impact Evaluation Work Plan* that will satisfy the requirements of Section G.1. of the Permit and be approved by the Executive Officer of the Regional Board.

The main activities of this task include:

- West Yost will compile the text, tables, and figures prepared in Tasks 2 and 3, prepare an administrative draft Work Plan, and submit it to MSWD for review and comment. West Yost will lead a conference call with MSWD staff to discuss the administrative draft Work Plan and receive verbal feedback. MSWD staff will provide West Yost with written comments and suggested revisions within two weeks of receiving the administrative draft Work Plan.
- West Yost will prepare a draft Work Plan based on the comments and suggested revisions received from MSWD. MSWD will submit the draft Work Plan to the Regional Board for review and comment. West Yost will lead a conference call with Regional Board and MSWD staff to discuss the draft Work Plan and receive verbal feedback. Regional Board staff will provide West Yost and MSWD with written comments and suggested revisions.
- West Yost will prepare a final Work Plan based on the comments and suggested revisions received from Regional Board staff. MSWD will submit the final Work Plan to the Regional Board.

Task 4 Assumptions

- MSWD staff will require one (1) round of review/comment on the administrative draft Work Plan.
- Regional Board staff will require one (1) round of review/comment on the draft Work Plan.

Task 4 Deliverables

- West Yost will provide electronic copies of the administrative draft, draft, and final Work Plans.
- West Yost will provide all GIS layers prepared for the Work Plan.

Task 5. Ad Hoc Meetings and Project Administration

In this task, West Yost will: prepare for and conduct up to two virtual coordination meetings with MSWD staff; coordinate staffing over the duration of the project; and provide monthly invoices and progress reports to MSWD staff of project progress, schedule, and budget status.

PROJECT BUDGET

West Yost's proposed level of effort and budget for each of the tasks described above is shown in Table 1. West Yost will perform the Scope of Services described above on a time-and-expenses basis, at the billing rates set forth in West Yost's attached 2022 Billing Rate Schedule, with a not-to-exceed budget of $44,147. Any additional services not included in this Scope of Services will be performed only after receiving written authorization and a corresponding budget augmentation.

Table 1. Estimated Project Hours and Budget

Task	Level of Effort, hours	Estimated Budget, dollars
Task 1. Project Kickoff/Collect Data and Reports	25	6,011
Task 2. Describe the Current Physical Setting	62	14,260
Task 3. Describe Monitoring and Reporting Program	34	8,168
Task 4. Prepare TDS Impact Evaluation Report and Work Plan	56	13,082
Task 5. Ad Hoc Meetings and Project Administration	10	2,626
Total Project Hours and Budget	**200**	**$44,147**

SCHEDULE

West Yost anticipates providing the draft Work Plan within ten (10) weeks after receiving notice to proceed and all required data in Task 1. Preparation of the final Work Plan is dependent on the speed of review and comment by the Regional Board, which is uncertain.

Thank you for providing West Yost the opportunity to be of service to the MSWD on this important project. Please call with questions or requests for additional information.

Sincerely,
WEST YOST

Andrew (Andy) Malone, PG
Principal Geologist II
PG #8700

Carolina Sanchez, PE
Senior Engineer I
RCE #85598

Attachment: A. West Yost 2022 Billing Rate Schedule

Attachment A

West Yost's 2022 Billing Rate Schedule

2022 Billing Rate Schedule

(Effective August 1, 2022 through December 31, 2022)*

POSITIONS	LABOR CHARGES (DOLLARS PER HOUR)
ENGINEERING	
Principal/Vice President	$328
Engineer/Scientist/Geologist Manager I / II	$310 / $324
Principal Engineer/Scientist/Geologist I / II	$280 / $298
Senior Engineer/Scientist/Geologist I / II	$251 / $264
Associate Engineer/Scientist/Geologist I / II	$215 / $231
Engineer/Scientist/Geologist I / II	$173 / $201
Engineering Aide	$101
Field Monitoring Services	$93
Administrative I / II / III / IV	$89 / $112 / $134 / $148
ENGINEERING TECHNOLOGY	
Engineering Tech Manager I / II	$322 / $324
Principal Tech Specialist I / II	$296 / $306
Senior Tech Specialist I / II	$271 / $283
Senior GIS Analyst	$245
GIS Analyst	$232
Technical Specialist I / II / III / IV	$173 / $197 / $221 / $247
Technical Analyst I / II	$124 / $148
Technical Analyst Intern	$100
Cross-Connection Control Specialist I / II / III / IV	$129 / $140 / $157 / $175
CAD Manager	$195
CAD Designer I / II	$151 / $171
CONSTRUCTION MANAGEMENT	
Senior Construction Manager	$313
Construction Manager I / II / III / IV	$191 / $205 / $217 / $275
Resident Inspector (Prevailing Wage Groups 4 / 3 / 2 / 1)	$167 / $185 / $207 / $215
Apprentice Inspector	$151
CM Administrative I / II	$81 / $109
Field Services	$215

- Hourly rates include Technology and Communication charges such as general and CAD computer, software, telephone, routine in-house copies/prints, postage, miscellaneous supplies, and other incidental project expenses.
- Outside Services such as vendor reproductions, prints, shipping, and major West Yost reproduction efforts, as well as Engineering Supplies, etc. will be billed at actual cost plus 15%.
- The Federal Mileage Rate will be used for mileage charges and will be based on the Federal Mileage Rate applicable to when the mileage costs were incurred. Travel other than mileage will be billed at cost.
- Subconsultants will be billed at actual cost plus 10%.
- Expert witness, research, technical review, analysis, preparation and meetings billed at 150% of standard hourly rates. Expert witness testimony and depositions billed at 200% of standard hourly rates.
- A Finance Charge of 1.5% per month (an Annual Rate of 18%) on the unpaid balance will be added to invoice amounts if not paid within 45 days from the date of the invoice.

* This schedule is updated annually

2022 Billing Rate Schedule

(Effective August 1, 2022 through December 31, 2022)*

Equipment Charges

EQUIPMENT	BILLING RATES
2" Purge Pump & Control Box	$270 / day
Aquacalc / Pygmy or AA Flow Meter	$28 / day
Emergency SCADA System	$35 / day
Gas Detector	$80 / day
Generator	$39 / day
Hydrant Pressure Gauge	$10 / day
Hydrant Pressure Recorder, Impulse (Transient)	$55 / day
Hydrant Pressure Recorder, Standard	$40 / day
Low Flow Pump Controller	$75 / day
Powers Water Level Meter	$32 / day
Precision Water Level Meter	$19 / day
Stainless Steel Wire per foot	$0.03 / day
Storage Tank	$15 / day
Sump Pump	$24 / day
Transducer Components (per installation)	$23 / day
Trimble GPS – Geo 7x	$220 / day
Tube Length Counter	$22 / day
Turbidity Meter	$22 / day
Vehicle	$10 / day
Water Flow Probe Meter	$20 / day
Water Quality Meter	$27 / day
Water Quality Multimeter	$185 / day
Well Sounder	$30 / day

* This schedule is updated annually