

SEASIDE BASIN WATERMASTER
REQUEST FOR SERVICE

DATE: January 1, 2018

RFS NO. 2018-01

(To be filled in by WATERMASTER)

TO: Martin Feeney
Martin Feeney
PROFESSIONAL

FROM: Robert Jaques
WATERMASTER

Services Needed and Purpose:

Perform certain Tasks contained within the Watermaster's Monitoring and Management Plan for 2018 (See detailed Scope of Work in Attachment 1).

Completion Date: The work of this RFS No. 2018-01 shall be completed in accordance with the schedule described in Attachment 1.

Method of Compensation: Time and Expense Payment Method (As defined in Section V of Agreement.)

Total Price Authorized by this RFS: \$ 26,585.56 (See Attachment 2 for a Breakdown of this Total Price. Cost is authorized only when evidenced by signature below.)

Total Price may not be exceeded without prior written authorization by WATERMASTER in accordance with Section V. COMPENSATION.

Authorized by:  Date: 1/18/18
WATERMASTER Technical Program Manager

Agreed to by:  Date: 1/16/18
PROFESSIONAL

ATTACHMENT 1

Detailed Scope of Work for RFS No. 2018-01

Background:

The Watermaster Board approved the Budget for the 2018 Management and Monitoring Program Work Plan (hereinafter referred to as the “2017 M&MP Work Plan”) at its meeting of October 4, 2018.

Scope of Work

This RFS No. 2018-01 authorizes PROFESSIONAL to perform the work described in PROFESSIONAL’s Proposal for Hydrogeologic Services, dated August 24, 2017 and contained in Attachment 2, with the following clarifications and/or additions:

PROFESSIONAL will collect water quality and water level data from the wells identified as SBWM-1, SBWM-2, SBWM-3, and SBWM-4. PROFESSIONAL will also perform induction logging on each of these wells. These wells are commonly referred to as WATERMASTER’s Sentinel Wells. Water level data collection, water quality analyses, and induction logging will be performed on each of these wells as described below and according to the schedule described below:

Induction Logging

Induction logging will be performed on each of the four Sentinel Wells semi-annually.

Water Level

Water levels in each of the four Sentinel Wells will be continuously measured by data loggers and will be downloaded semi-annually when induction logging is being performed.

Water Quality Sampling Schedule

Unless WATERMASTER directs PROFESSIONAL not to perform water quality sampling, Wells SBWM-1, SBWM-2, and SBWM-4 will be sampled for water quality twice during the year (nominally in March and September), and Well SBWM-3 will be sampled for water quality annually (nominally in September). Each well will be sampled at two discrete depths. This will constitute a total of 14 water quality samples taken during the year (two samples from each well during each sampling event). If WATERMASTER directs PROFESSIONAL not to perform water quality sampling, the costs described in Attachment 2 that pertain to water quality sampling and analysis will not be incurred, and PROFESSIONAL will not be compensated for that work.

Water Quality Analyses

The water quality constituents that will be measured in these analyses are: Specific Conductance (micromhos/cm), Bicarbonate (as HCO₃-), pH, Chloride, Sulfate, Nitrate Nitrogen (as NO₃), Calcium, Sodium, Magnesium, Potassium, Iron, Manganese, Orthophosphate, Total Dissolved Solids, Boron, Bromide, Barium, Iodide, and Fluoride. The samples collected for analysis will be submitted to a State-certified analytical laboratory for analysis.

PROFESSIONAL will transmit the digital water level and water quality data to the Monterey Peninsula Water Management District (MPWMD), HydroMetrics WRI, and to the WATERMASTER promptly after the data is acquired, so that (1) MPWMD can use that data in preparing its reports to the WATERMASTER and (2) HydroMetrics WRI and the WATERMASTER will be made promptly aware of the data. Digital induction data will also be provided to MPWMD, HydroMetrics WRI, and to the Watermaster as soon as it becomes available to PROFESSIONAL. Digital induction data will also be reduced and presented graphically and provided to HydroMetrics WRI for use by HydroMetrics WRI in preparing reports for the WATERMASTER.

ATTACHMENT 2

Martin B. Feeney
Consulting Hydrogeologist

PG 4634
CEG 1454
CHg 145

August 31, 2017

Seaside Basin Watermaster
PO Box 51502
Pacific Grove CA
93950

Attention: Bob Jaques, PE

Subject: Sentinel Well Data Collection Program 2018 – Proposal for Hydrogeologic Services

Dear Bob:

Following up on our discussions, I'm pleased to provide this proposal to assist the Seaside Basin Watermaster (Watermaster) with data collection from the Sentinel Wells for the upcoming year. Presented in this proposal are an outline of the data collection plan and an estimate of associated costs.

The data collection program for the Sentinel Wells will continue as it has been performed in 2016. The data collection program currently includes semi-annual induction logging and continuous water level data collection. This basic program is supplemented with the periodic collection of depth-specific downhole water quality sampling. The subcontractors for the induction logging, downhole sampling and laboratory services remain unchanged.

The components of this program are as follows:

Data collection from each well:

- Semi-Annual down-loading of water level data logger.
- Semi-Annual induction logging
- Semi-annual depth-specific sample at two depths in wells SBWM#1, SBWM#2 and SBWM #4. Annual depth-specific sample collection in well SBWMW#3. 14 samples total. In addition, budget includes 1 field blank and 1 split-sample for each sampling event for a total of 18 samples.
- Water quality analysis (MPWMD "Sentinel Well Suite" – General Mineral plus Barium and Iodide) of collected water quality samples.

It is understood that, as in the past, the Monterey Peninsula Water Management District (District) will share some of the data collection and analysis tasks of the overall data collection program. The District will collect water level data from the array of data loggers on the alternate quarters. Water level data from the data loggers will be collected as part of this scope of services only when induction logging is performed. Collected water level data will be transmitted to the District for compilation and processing. Induction logging data will continue to be compiled and processed by this author.

Annual costs for the data collection program are estimated at \$ 26,585.56 inclusive of outside services. A breakdown of costs is presented in the table below.

**SENTINEL WELLS LOGGING/SAMPLING WL DATA COLLECTION PROGRAM
2018**

Pacific Surveys	Unit Cost	Number	Semi-Annual Cost	# per annum	Annual Cost
Service Charge	1085	1	1085	2	\$ 2,170.00
Induction Logging	0.75	5310	3982.5	2	\$ 7,965.00
Rinse Only Depth Specific Samples	275	14	3850	1	\$ 3,850.00
E-file generation/transmittal	115	1	115	2	\$ 230.00
mileage	0.99	422	417.78	2	\$ 835.56
per diem	175	3	525	1	\$ 525.00
					\$ 15,575.56
Lab Costs					
General Mineral Analysis plus Ba and I	225	14	3150	1	\$ 3,150.00
Field Blanks/Duplicates	225	4	900	1	\$ 900.00
Professional Services					
Supervise Logging/Download Data Loggers	165	14	2310	2	\$ 4,620.00
Process Induction Data	195	4	780	2	\$ 1,560.00
Transmit Water Level Data	195	2	390	2	\$ 780.00
					\$ 6,960.00
				Total	\$ 26,585.56

The opportunity to present this proposal is appreciated. Please call if you have any questions.

Sincerely,



Martin B. Feeney