

SEASIDE BASIN WATERMASTER
REQUEST FOR SERVICE

DATE: March 9, 2023

RFS NO. 2023-03

(To be filled in by WATERMASTER)

TO: Cameron Tana
Montgomery & Associates
PROFESSIONAL

FROM: Robert Jaques
WATERMASTER


Services Needed and Purpose: Plan and design a replacement groundwater monitoring well for existing Monitoring Well FO-9 Shallow (now destroyed and abandoned). RFS No. 2022-05 only authorized the first two Tasks described in the Scope of Work in Attachment 1. This RFS No. 2023-03 authorizes the subsequent Tasks (3 and 4) which include updated well driller costs.

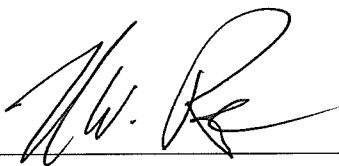
Completion Date: All work authorized by this RFS shall be completed not later than December 31, 2023, and shall be performed in accordance with the Schedule described in Attachment 1.

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

Total Price Authorized by this RFS: \$ 258,197.00 (Cost is authorized only when evidenced by signature below.) (See Attachment 1 for Estimated Costs).

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

Requested by:  Date: 3-9-23
WATERMASTER Technical Program Manager

Agreed to by:  Date: 5/16/23
PROFESSIONAL

ATTACHMENT 1

SCOPE OF WORK

RFS No. 2022-05 authorized PROFESSIONAL to perform the work of Tasks 1 and 2 described in the attached Proposal dated August 3, 2022 titled “Scope and Fee for Replacement Monitoring Well FO-9 Shallow.” Only a portion of the hours associated with Task 1 were needed to perform Task 2, and the remaining hours associated with Task 1 will be used to perform Tasks 3 and 4. A copy of the body of the Proposal is attached for reference in Exhibit A. A copy of the well driller’s quote that was included with RFS No. 2022-05 is attached for reference in Exhibit B.

This RFS No. 2023-03 authorizes PROFESSIONAL to perform Tasks 3 and 4. It includes an updated cost quote from the well driller based on the final design of the well, and an updated table for PROFESSIONAL’s costs which supersede the costs for Task 3 in the August 3, 2022 Proposal. The updated well driller’s cost quote is contained in Exhibit C. The updated table of PROFESSIONAL’s costs is contained in Exhibit D.

Differences between the well driller’s quote in Exhibit B, and the updated quote dated 02/01/2023 in Exhibit C are described below:

- Item 2 increased by 10 feet because the well depth was increased by 10 feet.
- Item 5 decreased by 5 feet because the blank casing length was decreased by 5 feet.
- Item 7 decreased by 35 feet because the length of the gravel pack was decreased by 35 feet.
- Item 8 was increased by 45 feet because the length of the sanitary seal was increased by 45 feet.
- Item 9 was changed to air lift well development because for the small diameter of this bore, airlift development is more effective than pumping.
- Item 10 “Test pump install and remove” was deleted and replaced with a new Item “Video well” because no test pump will be required, and it is desirable to have a video log to ensure that the well is constructed as designed and without damage.
- Item 11 “Pump development” was deleted because this will not be needed.
- A new Item 12 was added to provide a concrete pad with a lockable cover to protect the well.
- An item was added titled “Adder, if needed” to install a 60 foot long conductor if this is needed to stabilize the upper portion of the well. It is hoped that the conductor will not be needed, but several wells in the area are constructed with deep conductors. It is not known why some of those wells have deep conductors while others do not. This item is included in the budget for this work, so that if drilling conditions require installing a conductor, budget will available to accommodate that. If a conductor is not needed, this cost will not be incurred.

Certain of the items listed in the Footnotes of the updated quote are standard verbiage in the well driller’s quotes and will not be applicable to this work. These will be revised in the contract between PROFESSIONAL and the well driller. These footnotes are:

- Footnote 4 talks about disposal of cuttings and drill fluids being the customer’s responsibility. However item 11 of the quote covers having the contractor do this.

- Footnote 6 says that the only permit the contractor will get is the Monterey County Health Department's well permit. However, the specifications will also require the contractor to get the City of Seaside's encroachment permit to install the well.
- Footnote 7 mentions "test well" destruction, but this project will not require a test well.

EXHIBIT A



August 3, 2022

Mr. Bob Jaques
Seaside Watermaster Technical Program Manager
83 Via Encanto
Monterey, CA 93940

SUBJECT: SCOPE AND FEE FOR REPLACEMENT MONITORING WELL FO-9 SHALLOW

Dear Mr. Jaques,

Montgomery & Associates (M&A) is pleased to submit this scope, fee, and schedule proposal to the Seaside Groundwater Basin Watermaster (Watermaster) to provide hydrogeological support and construction management services for a replacement monitoring well for FO-9 shallow. The current FO-9 shallow monitoring well is constructed of 2-inch diameter PVC well casing with a screen intake from 610 to 650-feet below ground surface. This proposal assumes a borehole depth of 660-feet below ground surface (bgs), total well depth of 650-feet bgs, and proposes 2.5-inch Schedule 80 PVC well casing and screen. The deeper depth assumed is because the replacement well may not be located at the location of the original FO-9 shallow monitoring well. The actual location of the well will be determined during Task 2. Schedule 80 PVC is proposed to increase the lifespan of the replacement well.

M&A currently anticipates retaining the support of Maggiora Brothers Drilling (Maggiora) of Watsonville, CA, for well installation and development services. The drilling contractor is subject to change based on project requirements and with prior approval from Watermaster. Martin Feeney will additionally be retained to provide hydrogeological review and monitoring well design recommendations based on his history with Watermaster, as requested.

SCOPE OF WORK

The scope of work includes technical specifications, bidding and contract support, construction management, and reporting. M&A proposes the following tasks to complete the project:

- Task 1 – Project Management
- Task 2 – Technical Specifications
- Task 3 – Construction Management
- Task 4 – Reporting

These tasks are described individually below.

Estimated Drilling Costs

Estimated costs for the construction and development of monitoring well FO-9 shallow are included for budgetary purposes. These costs will be revised based on the selection of the well site and the final details of the technical specifications under Task 2. Costs included herein represent good-faith estimates based on current project understanding and/or assumptions, but may be revised to account for adjustments based on site conditions, well construction details and/or logistics, project duration, changes in labor or material rates, and other such factors. The technical specifications prepared under Task 2 will include a detailed bid schedule and timeline which will be used to refine M&A and Maggiora cost estimates. M&A will

provide revised costs for Task 3 and negotiate any required contract changes prior to beginning well construction activities.

Task 1: Project Management

M&A will provide administrative and budgetary management duties throughout the duration of the project; including but not limited to coordination with Watermaster, attendance at project meetings, assistance with site selection, permitting and providing information needed for Watermaster to obtain approvals from the landowner, budget management, and schedule management.

This task assumes a contract completion date of December 31, 2023. Progress reports will be included with invoice submittals.

Task 2: Technical Specifications

M&A will prepare technical specifications for the FO-9 shallow monitoring well to describe well design features, construction logistics, and installation and development procedures. Technical specifications will be used to gain agreement on the well design, construction logistics, and construction approach. Key components of the well design include borehole drilling, borehole geophysics, well installation, well development, and surface completion.

Task 2 includes preparation of draft technical specifications, one round of comments from Watermaster on the draft, and finalization. Draft and final technical specifications will be transmitted electronically. This task includes costs for one visit to the proposed well site with Watermaster and Maggiora to assess access and other site logistics.

M&A will assist the Watermaster with site selection for the well, including assistance in providing the information needed for Watermaster to obtain any necessary permits and approvals from the landowner. Watermaster is ultimately responsible for obtaining necessary permits.

Task 3: Construction Management

M&A will retain Maggiora to complete well installation and development, and will provide construction management during these activities. M&A will observe and document construction activities, including development of a lithologic log and determination of the final well design based on observations during drilling.

ASSUMPTIONS

- M&A can reasonably rely on the accuracy, timeliness, and completeness of information provided by Watermaster.
- M&A is responsible for tracking, cataloging, and approving submittals. M&A will provide Watermaster copies of all approved contractor submittals.
- Fieldwork will generally be conducted during 12-hour workdays on a standard 5-day workweek.
- Equipment rentals and fieldwork consumable purchases may be required. These may include but are not limited to field notebooks, chip trays and other miscellaneous project supplies. Costs for these items are included herein.
- M&A will assist the Watermaster in coordinating property access with the property owner.

- Prior to the start of drilling activities, M&A will coordinate and oversee subsurface utility locating by a Subtronic Corporation or equally qualified subsurface utility locating company. M&A is specifically not responsible for damages to buried utilities not identified by the property owner, Watermaster, Underground Service Alert of Northern California or the private utility locator.
- M&A and Maggiora will pay for and secure the Monterey County well permit.
- Costs for wellhead surveying (latitude, longitude, and elevation), groundwater sampling and well equipping (datalogger, sample pump, etc.) are not included in this proposal. Costs for these services can be provided upon request.

Construction management costs provided herein are estimated based on anticipated durations for each activity. The following durations are assumed for cost estimating purposes, for a total of approximately 24 field days:

- Utility clearance – 1 day
- Mobilization – 2 days
- Borehole drilling – 13 days
- Well installation – 3 days
- Well development – 3 days
- Well completion and demobilization – 2 days

Actual durations are subject to site conditions, drilling progress, weather and other factors not controlled by M&A. As such, actual costs are subject to increase or decrease based on actual durations. Field oversight costs are based on the Scientist 2 hourly rate, but efforts will be made to use the most cost-efficient, responsible staff level where feasible.

Task 4: Reporting

M&A will prepare a Well Installation Report following completion of site activities. The report will include a description of the work completed, description of the methods and procedures used, results and discussion of drilling and testing activities, conclusions and relevant appendices. A draft well installation report will be prepared in Microsoft Word format for Watermaster comment. Final submittal of this report will include one hardcopy and one PDF copy. The hardcopy report will additionally include long-form print outs of downhole logging (geophysical, caliper, alignment, spinner), a copy of the complete video survey in MP4 format (provided on DVD or flash drive), and one set of drill cutting chip trays.

Maggiora will file the Well Installation Report with the appropriate agency(s) including Monterey County Department of Health.

SCHEDULE

M&A assumes Task 2 will be completed by the end of calendar year 2022, provided the contract is executed by mid-October 2022 and that site selection is also completed during this time period. Well construction would occur in 2023 according to driller availability. The Well Installation Report will be completed within approximately 45 days following the completion of field activities.

EXHIBIT B

MAGGIORA BROS. DRILLING, INC.

DRILLING CONTRACTORS - PUMP SALES & SERVICE
CALIFORNIA CONTRACTOR'S LICENSE NO. 249957

Corporate Office
595 Airport Blvd.
Watsonville, CA 95076

Tel: (831) 724-1338
Tel: (800) 728-1480
Fax: (831) 724-3228

Contractor Bid - 08/01/2022
Montgomery & Associates
1970 Broadway, Suite 225
Oakland, Ca 94612
Attn. Bill DeBoer P.G., C.Hg.

Re: Construction of 2.5" Dia. x 660', PVC cased, monitoring well in Seaside, Ca.

The following is Maggiora Bros. Drilling, Inc. proposal:

1 Mobilization, includes permit	LS	1	\$10,000.00	\$10,000.00
2 Drill 10.75" bore hole	LF	660	\$92.00	\$60,720.00
3 E-log	LS	1	\$4,500.00	\$4,500.00
4 Caliper Log	LS	1	\$3,500.00	\$3,500.00
5 2.5" Sch 80 FT Blank Casing F&I	LF	620	\$25.00	\$15,500.00
6 2.5", Sch80 FT .030" screen F&I	LF	40	\$35.00	\$1,400.00
7 F & I Gravel Pack	LF	110	\$56.00	\$6,160.00
8 F & I sanitary seal	LF	550	\$55.00	\$30,250.00
9 Well Development	HR	8	\$500.00	\$4,000.00
10 test pump install & remove	LS	1	\$1,500.00	\$1,500.00
11 Pump development	HR	4	\$395.00	\$1,580.00
12 disposal of fluids & cuttings	LS	1	\$12,000.00	\$12,000.00
13 Standby time	HR	0	\$500.00	\$0.00

Price: includes labor, equipment, material, taxes, & freight: \$151,110.00

1. Customer is to provide access to site and to mark location of well.
2. Drilling Contractor will USA for drilling. We recommend that the customer have a private locator verify utilities at well location if needed.
3. Customer to provide a source of water for drilling at site and provide a level site for the well drilling equipment.
4. ~~Cuttings and drill fluids to remain on site and are the responsibility of the Customer, unless other provisions have been made.~~
5. Temp fencing, sound-walls, traffic control, or other BMP's are not included. These can be provided at an additional cost.
6. Drilling Contractor will provide a drilling permit from the County. All other permits are excluded.
7. Test hole destruction, if required, will be \$75/ft. If drilling slows to < 8' in two hours, drilling converts to hourly at \$550.00

MAGGIORA BROS. DRILLING, INC.

DRILLING CONTRACTORS - PUMP SALES & SERVICE

CALIFORNIA CONTRACTOR'S LICENSE NO. 249957

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8. Bonding is not included in this proposal, but can be provided on a cost/plus basis.
9. Maggiora Bros. Drilling, Inc. current backlog is such that we may not be able to start the project for 4 to 5 months.
10. Proposal is valid for 30 days.
11. Due to the volatility of material & fuel costs in the current market, Maggiora Bros. Drilling, Inc. reserves the right to adjust pricing based on the actual cost of materials at the time of order.

Maggiora Bros. Drilling, Inc is a Union company; Operating Engineers, Local #3, as well as, a Certified Small Business. (34073)

If you have any questions, feel free to contact us!

Sincerely,

Michael F. Maggiora

EXHIBIT C

MAGGIORA BROS. DRILLING, INC.

DRILLING CONTRACTORS - PUMP SALES & SERVICE
CALIFORNIA CONTRACTOR'S LICENSE NO. 249957

Corporate Office
595 Airport Blvd.
Watsonville, CA 95076

Tel: (831) 724-1338
Tel: (800) 728-1480
Fax: (831) 724-3228

Contractor Bid - 02/01/2023
Montgomery & Associates
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Attn. Bill DeBoer P.G., C.Hg.

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2 Drill 10.75" bore hole	LF	670	\$92.00	\$61,640.00
3 E-log	EA	1	\$4,500.00	\$4,500.00
4 Caliper Log	EA	1	\$3,500.00	\$3,500.00
5 2.5" Sch 80, FT, Blank Casing F&I	LF	615	\$25.00	\$15,375.00
6 2.5", Sch80, FT, .030" screen F&I	LF	40	\$35.00	\$1,400.00
7 F & I Gravel Pack	LF	75	\$56.00	\$4,200.00
8 F & I sanitary seal	LF	595	\$55.00	\$32,725.00
9 Well Development - Airlift	HR	8	\$550.00	\$4,400.00
10 Video well	EA	1	\$3,500.00	\$3,500.00
11 Disposal of fluids & cuttings	LS	1	\$12,000.00	\$12,000.00
12 Install flush box and 4' x 4' pad	EA	1	\$1,950.00	\$1,950.00
13 Standby time	HR	0	\$550.00	\$0.00

Price: includes labor, equipment, material, taxes, & freight: \$155,190.00
Adder, if needed: 12", .250 wall x 60', MS Conductor: \$12,480.00

1. Customer is to provide access to site and to mark location of well.
2. Drilling Contractor will USA for drilling. We recommend that the customer have a private locator verify utilities at well location if needed.
3. Customer to provide a source of water for drilling at site and provide a level site for the well drilling equipment.
4. Cuttings and drill fluids to remain on site and are the responsibility of the Customer, unless other provisions have been made.
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MAGGIORA BROS. DRILLING, INC.

DRILLING CONTRACTORS - PUMP SALES & SERVICE

CALIFORNIA CONTRACTOR'S LICENSE NO. 249957

Page 2

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If you have any questions, feel free to contact us!

Sincerely,

Michael F. Maggiora

EXHIBIT D

		Bill DeBoer	Field/Staff	Editing	Labor	Expenses	Subcontractors			M&A	TOTAL
		Scientist 6	Hydrogeologi	Scientist 2			Technical Editor	Costs	Martin	Maggiora	
	\$/hr	\$228	\$138	\$80			Feeney	Bros.	Locating		
1	Project Management										
	Progress tracking, coordination, meeting and	32	-	-	\$ 7,296	\$ -	-	-	-	-	\$ 7,296
	Task 1 Subtotals	32	0	0	\$ 7,296	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,296
2	Technical Specifications										
	Site Visit	14	10	-	\$ 4,572	\$ 300	-	-	-	\$ 30	\$ 4,902
	Draft Technical Specifications	18	32	4	\$ 8,840	\$ -	\$ 1,000	-	-	\$ 100	\$ 9,940
	Final Technical Specifications	-	-	-	\$ -	\$ -	\$ 500	-	-	\$ 50	\$ 550
	Construction Management cost revisions	4	-	-	\$ 912	\$ -	-	-	-	\$ -	\$ 912
	Task 2 Subtotals	36	42	4	\$ 14,324	\$ 300	\$ 1,500	\$ -	\$ -	\$ 180	\$ 16,304
3	Construction Management										
	Subsurface Utility Locating	2	10	-	\$ 1,836	\$ 200	-	-	\$ 1,600	\$ 180	\$ 3,816
	Mobilization, Drilling, Well Installation*	12	216	-	\$ 32,544	\$ 4,500	\$ 500	\$ 145,820	-	\$ 15,082	\$ 198,446
	Well Development	2	36	-	\$ 5,424	\$ 750	-	\$ 7,900	-	\$ 865	\$ 14,939
	Wellhead Completion, Demobilization, Waste	2	24	-	\$ 3,768	\$ 500	-	\$ 13,950	-	\$ 1,445	\$ 19,663
	SUBTOTAL COST				\$ 43,572	\$ 5,950	\$ 500	\$ 167,670	\$ 1,600	\$ 17,572	\$ 236,864
	Contingency (5%) **				\$ 2,179	\$ 298	\$ 25	\$ 8,384	\$ 80	\$ 879	\$ 11,843
	Task 3 Subtotals	18	286	0	\$ 45,751	\$ 6,248	\$ 525	\$ 176,054	\$ 1,680	\$ 18,451	\$ 248,707
4	Reporting										
	Draft Well Installation Report	6	24	2	\$ 7,120	\$ -	\$ 500	-	-	\$ 50	\$ 7,670
	Final Well Installation Report	4	6	1	\$ 1,820	\$ -	-	-	-	\$ -	\$ 1,820
	Task 4 Subtotals	20	30	3	\$ 8,940	\$ -	\$ 500	\$ -	\$ -	\$ 50	\$ 9,490
	TOTAL HOURS	106	358	7							
	TOTAL COST	\$ 24,168	\$ 49,404	\$ 560	\$ 76,311	\$ 6,548	\$ 2,525	\$ 176,054	\$ 1,680	\$ 18,681	\$ 281,797
	* Includes addition of 12" conductor, if needed.										
	** To provide for uncertainties in field conditions and cost changes mentioned in well driller's quote Footnote 11.										