

COUNCIL AGENDA STATEMENT



Meeting Date: January 11, 2022
To: Honorable Mayor & Members of the City Council
From: Daniel Saus, Utilities Director
Through: George Garrett, City Manager

Agenda Item: **Resolution 2022-14**, Approving Changer Order #1 for Engineering Services for Area 3 Shallow Well FDEP RAI #2 Response And Further Geotechnical Investigations” To The Weiler Engineering Corp. In The Amount Of \$89,000.00. Authorizing The City Manager To Execute The Contract; And Provide For An Effective Date.

BACKGROUND & JUSTIFICATION:

The FDEP permitting process for the new shallow wells at the Area 3 WWTP requires us to perform geotechnical investigations as well as getting support from a geologist and our engineer. Bore holes will be drilled and cores will be analyzed, and flow monitors installed. Interpretation by a licensed geologist is also included. All this was required to properly respond to the RAI #1 (request for additional information) from FDEP. In September received from the FDEP RAI #2 which requires further modeling work from our engineer and other consultants. The work description is attached as Exhibit “1”.

CONSISTENCY CHECKLIST:

	Yes	No
1. Comprehensive Plan	_____	_____
2. Other – 2010 Sewer Mandate	_____	_____
3. Not applicable	_____	_____

FISCAL NOTE:

The Adopted FY22 Wastewater Utility Budget includes appropriations of \$2,500,000 for the Service Area 3 to 4 Re-pump and Force Main or Digester /SBR conversion project.

RECOMMENDATION:

Approval of Resolution

**CITY OF MARATHON, FLORIDA
RESOLUTION 2022-14**

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MARATHON, FLORIDA, AWARDED A WORK AUTHORIZATION FOR CHANGE ORDER #1 FOR ENGINEERING AND CONSULTANT WORK FOR AREA 3 SHALLOW WELL RAI #2 RESPONSE AND TO WEILER ENGINEERING CORPORATION; AMENDING THE PROJECT AGREEMENT IN THE NOT TO EXCEED A TOTAL AMOUNT OF \$89,000.00; AUTHORIZING THE CITY MANAGER TO EXECUTE THE AGREEMENT AND EXPEND BUDGETED FUNDS ON BEHALF OF THE CITY; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the City of Marathon (the “City”) and Weiler Engineering Corporation. (the “Engineer”) have entered into a continuing services agreement for Professional Engineering Services in April of 2020; and

WHEREAS, the work specific agreement (the “Project Agreement”) contains the scope of work to provide professional engineering services required for “Service Area 3 to 4 Force Main CEI and Area 3 Shallow Well RAI response and geotechnical investigations” the “Project”); and

WHEREAS, the city approved Resolution #2021-08 for the required services to respond to FDEP’s RAI #1; and

WHEREAS, the City staff wish to amend this agreement with attached Change Order #1, which will enable the City to complete the required engineering and other services required to respond to FDEP RAI # 2 which was received in September 2021, and

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MARATHON, FLORIDA, THAT:

Section 1. The foregoing recitals are true and correct and are incorporated herein by this reference.

Section 2. The Project Agreement attached hereto as Exhibit “1”, together with such non-material changes as may be acceptable to the City Manager and approved as to form and legality by the City Attorney is hereby approved. The City Manager is authorized to sign the Project Agreement and expend budgeted funds on behalf of the City.

Section 3. This resolution shall take effect immediately upon its adoption.

PASSED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF MARATHON, FLORIDA, THIS 11th DAY OF JANUARY 2022.

THE CITY OF MARATHON, FLORIDA

John Bartus, Mayor

AYES:
NOES:
ABSENT:
ABSTAIN:

ATTEST:

Diane Clavier, City Clerk

(City Seal)

**APPROVED AS TO FORM AND LEGALITY FOR THE USE
AND RELIANCE OF THE CITY OF MARATHON, FLORIDA ONLY:**

Steve Williams, City Attorney

EXHIBIT "C"
CHANGE ORDER

CHANGE ORDER NO. 1

TO: City of Marathon

PROJECT: Work Authorization 2021-002-WW (Resolution 2021-08, Approved 01/12/2021)

CONTRACTOR: Weiler Engineering Corporation

DATE: November 8, 2021

This Change Order will authorize the following change to the Agreement:

The Work as set forth in the Agreement is hereby amended to include the items set forth on **Exhibit "1"** attached hereto and by this reference made a part hereof.

This Change Order constitutes full, final, and complete compensation to the Contractor for all costs, expenses, overhead, and profit, and any damages, and/or time adjustments of every kind that the Contractor may incur in connection with the above referenced changes in the Work, and any other effect on any of the Work under the Agreement. The Contractor acknowledges and agrees that (a) the Contract Price of \$226,284.50 under the Agreement will be [~~unchanged~~] [**changed**] by this Change Order, and (b) the schedule for performance of Work will be [~~unchanged~~] [**changed**] by this Change Order. Contractor expressly waives any claims for any additional compensation, damages or time extensions in connection with the above-referenced changes. Except as herein or heretofore expressly modified, all terms of the Agreement shall remain in full force and effect and shall cover the performance of, and payment for, any work authorized hereunder. Any defined terms not defined in this Change Order shall have the meanings set forth in the Agreement.


By signing below the parties indicate acceptance of this Change Order as set forth herein.

CONSENT OF SURETY TO CHANGE ORDER

The Surety Agrees that this change order is not a cardinal change and if the Change Order includes an increase in the Contract amount, then the penal amount of the payment and performance bond issued for this Contract is increased by the dollar amount of this Change Order.

Not Applicable (Seal)

Surety's Name and Corporate Seal

By: 
Signature and Title
City of Marathon, City Manager

Attest: _____
Signature and Title
Contractor

By: _____
Name: _____
Title: _____


By: 
Name: Edward R. Castle
Title: Vice President, Weiler Engineering

Exhibit "1"

CHANGE ORDER SUMMARY

This Change Order is necessary to cover changes in the Work to be performed under this Agreement. Except as may be modified herein all of the provisions of the Agreement apply to and govern all Work under this Change Order.

THE FOLLOWING CHANGES ARE MADE TO THE AGREEMENT DOCUMENTS:

(1)	Original Contract Price	\$226,284.50
(2)	Current Contract Price (Adjusted by Previous Change)	\$226,284.50
(3)	Total Proposed Change in Contract Price	\$89,000.00
(4)	New Contract Price (Item 2 + Item 3)	\$315,284.50
(5)	Original Contract Time	730 Days
(6)	Proposed Change in Contract Time	0 Days
(6.1)	Current Contract Time (Adjusted by Previous Change)	730 Days
(7)	Total Proposed Change in Contract Time	730 Days
(8)	New Contract Time (Item 6 ± Item 7)	730 Days
(9)	Original Contract Substantial Completion Date	January 19, 2023
(10)	New Contract Substantial Completion Date	January 19, 2023

CHANGE ORDER HISTORY						
Item No.	Description	Current Contract Amount	Additive Change	Deductive Change	Net Change Contract Price	Net Change Contract Time
1.	Total Contract Price	\$226,284.50	\$89,000.00	\$	\$89,000.00	0 Days
Total					\$89,000.00	730 Days

EXHIBIT 1
for
PSA 2021-002-WW Change Order No. 1

Project Specific Agreement 2021-002-WW includes authorization for Weiler Engineering Corporation (WEC) to assist the City in responding to a Request for Additional Information (RAI) associated with permitting of the shallow disposal wells included as a part of the Area 3 Expansion project. An initial RAI was sent regarding the wells and PSA 2021-002-WW was executed in the amount of \$226,284.50. This included reimbursable funds for assistance from sub-consultants in performing geotechnical investigations and in running the SEAWAT groundwater modeling program.

A response was prepared and, after review and approval by the City, was sent to FDEP. FDEP then issued a second RAI requiring additional information. To produce this additional information, the SEAWAT model must be modified and run to include effects of tidal pumping and to produce the further information requested by FDEP.

Water Science Associates, Inc. (WSA) was sub-contacted by WEC to do the original modeling and to assist in preparation of the RAI response. WEC requested a second proposal from WSA to assist in response to the second RAI. That proposal has been received and the City has approved the cost of the additional services (less Task 1B for installation of a monitoring well) in the amount of \$89,000.00. WEC proposes to enter into the agreement with WSA in the amount of \$89,000.00 and to present billings to the City with no markup of the WSA costs. Change Order No. 1 will authorize the additional funds for the work.



October 8, 2021

Mr. Edward R. Castle, PE
Weiler Engineering Corporation
201 West Marion Avenue
Punta Gorda, Florida 33950

RE: Marathon Area 3 Disposal Well - Request for Additional Information No. 2: Hydrogeologic Support

Dear Ed,

Water Science Associates, Inc. (Water Science) has prepared this cost proposal for professional hydrogeologic assistance to respond to the Florida Department of Protection (FDEP) second request for additional information (RAI) dated September 9, 2021. The RAI response is associated with the Marathon Area 3 disposal well application. Under the existing FDEP wastewater permit, which expires in 2024, 0.250 million gallons per day (MGD) average annual daily (AAD) flow of excess advance treated reuse water is permitted for disposal via an underground injection well system consisting of two (2) Class V underground injection wells permitted under FDEP permit number(s) 277618-187 and 277618-188 discharging to Class G-III groundwater. Under Application No. FLA642851-013-DW2P 277618-213-UC, the proposed Class V injection well is designed to provide additional operational flexibility for the system to dispose of up to 0.417 MGD AAD, is designed per industry standards, and is typical of injection wells in the Florida Keys. Pertinent elements of the second FDEP RAI that Water Science proposes to address listed below.

Dispersion and Travel Time

1. Please provide a dispersion model that incorporates tidal pumping.
2. Please explain how the distance to navigable waters is measured.
3. Please provide describe how the model has been verified based on actual testing (model truthing).
4. Please explain why the SEAWAT model has a boundary condition at the land edge and how the concentration and location boundaries were selected. If possible, please include the buoyancy/diffusion results in the nearshore waters and include a cross section of the Boot Key Harbor basin bottom.

Nutrient Concentration

5. Please provide the ratio of each phosphorus species to Total Phosphorus in the effluent.
6. Please provide the ratio of each nitrogen species to Total Nitrogen in the effluent.
{Note: the studies researched by staff are specific to phosphate and nitrate and do not account for other nutrient species.}
7. The Chanton study's results from Long Key do not appear to be appropriate inputs for this project's nutrient reduction model. Please reevaluate the nutrient uptake. Please include the permitted concentration limits as the injectate concentrations and effects of phosphorus desorption in the subsurface.

Based on what is requested in the FDEP RAI, Water Science proposes the following tasks as a phased evaluation approach to address the RAI. If during the project we determine that additional work tasks are warranted to fully address the RAI, we will provide a supplemental proposal to address the additional tasks at that time.

Task 1. Model Verification - Additional Data Collection

To address model verification with actual testing (FDEP Request No. 2), Water Science believes this can be addressed by either two means: (1) falling head permeameter testing or (2) a short-term injection aquifer performance test (APT). The hydrogeologic data collected from the selected methodology will be evaluated and compared to the literature referenced hydrogeologic parameters used in the SEAWAT model. If there are significant differences, the SEAWAT model will be adjusted accordingly and re-evaluated. The direction of this work item will be determined by the City.

Task 1A. Falling Head Permeameter Testing

To address FDEP Request No. 2 and in conjunction with the Florida Geological Survey (FGS), Water Science will select up to twenty depth locations from the collected the Marathon Area 3 core, which is at the FGS Core Repository in Tallahassee, for the FGS to sample and outsource to a geotechnical lab for falling head permeameter testing analysis. The turnaround time for results is approximately 5 weeks on authorization. If selected by the City, Task 1A will be billed as Time and Materials, based on the attached rates with a not to exceed limit of **\$15,500**.

Task 1B. Monitor Well Installation, Development, and Performance Testing Oversight

We believe the falling head permeameter testing will provide the most cost-effective model verification. However, if the testing were not to provide the data needed or FDEP were to request additional "ground truthing", we could conduct detailed aquifer performance testing at the injection well sites. To address FDEP Request No. 2, Water Sciences would contract the Florida licensed well contractor to complete the proposed monitoring wells per the depth, locations, and schematics prescribed. Water Science will provide field staff for monitor well installation, development, and performance testing oversight and field documentation. Water Science requests that a City surveyor determine top of riser elevation, top of protective casing, and land surface elevations at each monitor well. We are proposing a two-to-three-day constant rate injection test, which will require the City staff for assistance in operation of the injection well system. Monitor wells will have pressure transducers installed to provide background and testing data, Test data will be corrected for tidal cycles. If selected by the City, Task 1B will be billed as Time and Materials, based on the attached rates with a not to exceed limit of **\$150,000**.

Task 1C. Nutrient Speciation

To address FDEP Request Nos. 4 and 5, Water Science will work with the City to evaluate phosphorous and nitrogen species concentrations relative to total phosphorus and total nitrogen concentrations in the advanced treated effluent. The City may already have this data in-house. This work element will be billed as Time and Materials including sampling and laboratory fees, with a not to exceed limit of **\$3,500**.

Only Task 1A and Task 1C are being proposed for authorization at this time for a total Task 1 fee of **\$19,000**. Should Task 1B be required, Water Science will seek additional authorization for the task.

Task 2. Additional SEAWAT Modeling

The FDEP is requesting that aspects of the provided SEAWAT model be detailed more fully in an updated modeling report (FDEP Request Nos. 1 and 3). This includes updating the SEATWAT model based on data collected under **Task 1** and evaluating tidal pumping. Water Science will update the SEAWAT model accordingly, if warranted, and complete a simulated limited period transient tidal pumping model scenario to address FDEP Request Nos. 1 and 3. The cost for this groundwater flow and transport modeling work element is \$30,000, while the cost for updating of the previously submitted model report is \$7,500; for a total cost of **\$37,500 (Lump Sum)**.



Task 3. Response to RAI No. 2

Water Science will work with the City's attorneys to draft the response to RAI No. 2 addressing FDEP Request Nos. 1 through 6. Task 4 will be billed as Time and Materials, based on the attached rates with a not to exceed limit of **\$12,500 (Lump Sum)**.

Task 4. General Hydrogeologic Consultation and Team and Agency Meetings and Presentations

Water Science will attend meetings with the project team, the FDEP and/or other agencies, and attend public hearings as needed in support of the work elements provided in the tasks listed above. If requested, we will produce PowerPoint presentations or meeting materials related to the work completed under this proposal. These work elements are common efforts in facilitating permit approval. Task 4 will be billed as Time and Materials, based on the attached rates with a not to exceed limit of **\$20,000**.

If additional project tasks arise during the project that require further hydrogeological evaluation, we will provide you with a supplemental proposal detailing the additional tasks and the services to be provided to address your needs.

We greatly appreciate the opportunity to work with you on this project. If acceptable, please sign and return the attached Standard Agreement or provide other authorization to proceed. Please let us know if you have any questions, comments, or suggestions.

Yours Sincerely,

Michael C. Alfieri, P.G., P.H.g., CGWP
Senior Managing Hydrogeologist
Water Science Associates, Inc.
Mobile: 813.545.4558
Email: michaela@wsaconsult.com

Cc: Kirk Martin, President, Water Science Associates, FILE
Attachments: 2021 Water Science Associates Hourly Rates



Hourly Rates:

Principal Scientist / Engineer	\$210
Senior Water Resource Modeler	\$185
Senior Scientist / Engineer	\$175
Project Scientist / Engineer	\$150
Staff Scientist	\$125
GIS/CADD Technician	\$110
Field Technician	\$100
Administrative Support	\$75

Reimbursable Expenses:

Mileage:	Current IRS Mileage Rate
Other Incidental Expenses	Actual Cost-plus 15%
Expert Witness	200% of Scheduled Rate