

Sponsored by: Garrett

**CITY OF MARATHON, FLORIDA
RESOLUTION 2024-129**

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MARATHON, FLORIDA, APPROVING A CONTRACT WITH WATER SCIENCE ASSOCIATES, LLC. FOR DESIGN, PERMITTING, AND CONSTRUCTION ENGINEERING AND INSPECTION SERVICES FOR A CLASS 1 DEEP INJECTION WELL IN AN AMOUNT NOT TO EXCEED \$2,833,200.00; AUTHORIZING THE CITY MANAGER TO EXECUTE THE AGREEMENT ON BEHALF OF THE CITY; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the city wishes to move forward with the Design, Permitting, and Construction Engineering and Inspection for a Class 1 Deep Injection Well;

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

Section 1. The above recitals are true and correct and incorporated herein.

Section 2. The City Council hereby authorizes the City Manager to enter into an agreement and expend budgeted funds on behalf of the City for the Design, Permitting, and Construction Engineering and Inspection for a Class 1 Deep Injection Well with Water Science Associates, LLC. in an amount not to exceed \$2,833,200.00.

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 10th DAY OF DECEMBER 2024.

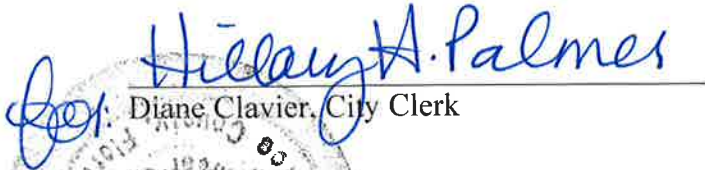
THE CITY OF MARATHON, FLORIDA



Mayor Lynn Landry

AYES: Smith, Matlock, Still, DelGaizo, Landry
NOES: None
ABSENT: None
ABSTAIN: None

ATTEST:


Diane Clavier, City Clerk



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


Steve Williams, City Attorney

PROJECT SPECIFIC AGREEMENT

CLASS 1 DEEP INJECTION WELL PROJECT

PROJECT SPECIFIC AGREEMENT
Between
THE CITY OF MARATHON, FLORIDA
And
Water Science Associates
For
Class 1 Deep Injection Well Design, Permitting, and CEI Services

This Project Specific Agreement authorizes Water Science Associates, henceforth the CONSULTANT, to provide the services as set forth below:

SECTION 1. SCOPE OF SERVICES

1.1 The CONSULTANT shall provide engineering services to the CITY for the Project as described in the "Project Description" included in Attachment "1."

1.2 The "Scope of Services and Project Schedule" and tasks to be provided by the CONSULTANT for this Project are those services and tasks as included in Attachment "1".

1.3 The CITY may request changes that would increase, decrease, or otherwise modify the Scope of Services. Such changes must be contained in a written change order executed by the parties with mutual written consent, prior to any deviation from the terms of the Project Agreement, including the initiation of any extra work.

SECTION 2. DELIVERABLES

2.1 As part of the Scope of Services and Project Schedule, the CONSULTANT shall provide to the CITY the following Deliverables as included in Attachment "1".

SECTION 3. TERM/TIME OF PERFORMANCE/DAMAGE

3.1 **Term.** This Project Agreement shall commence on the date this instrument is fully executed by all parties and shall continue in full force and effect 26 months, unless otherwise terminated pursuant to Section 6 or other applicable provisions of this Project Agreement. The City Manager, in his sole discretion, may extend the term of this Agreement through written notification to the CONSULTANT. Such an extension shall not exceed 8 months. No further extensions of this Agreement shall be effective unless authorized by the CITY Council.

3.2 **Commencement.** The CONSULTANT'S services under this Project Agreement and the time frames applicable to this Project Agreement shall commence upon the date provided in a written Notification of Commencement ("Commencement Date") provided to the CONSULTANT from the CITY. The CONSULTANT shall not incur any expenses or obligations for payment to third parties prior to the issuance of the Notification of Commencement. CONSULTANT must receive written notice from the City Manager prior to the beginning the performance of services.

3.3 **Contract Time.** Upon receipt of the Notification of Commencement, the CONSULTANT shall commence services to the CITY on the Commencement Date, and shall continuously perform services to the CITY, without interruption, in accordance with the time frames set forth in the "Project Schedule," a copy of which is attached and incorporated into this Agreement as a part of Attachment "1". The number of calendar days from the Commencement Date, through the date set forth in the Project Schedule for completion of the Project or the date of actual completion of the Project, whichever shall last occur, shall constitute the Contract Time.

SECTION 4. AMOUNT, BASIS AND METHOD OF COMPENSATION

4.1 **Compensation.** CITY AGREES TO PAY CONSULTANT COMPENSATION AT CONSULTANT'S HOURLY RATES AND REIMBURSIBLE EXPENSES, UP TO A MAXIMUM AMOUNT NOT TO EXCEED \$2,833,200.00.

4.2 **Reimbursable Expenses.** The following expenses are reimbursable at their actual cost: travel and accommodations, courier services, mileage (at the GSA rate), photo and reproduction services. All document reproductions are also reimbursable, at a rate approved by the CITY.

SECTION 5. BILLING AND PAYMENTS TO THE CONSULTANT

5.1 Invoices

5.1.1 **Hourly Not To Exceed Rate.** CONSULTANT shall submit invoices which are identified by the specific project number on a monthly basis in a timely manner. These invoices shall identify the nature of the work performed, the personnel performing the work, the time worked and the total billing in accordance with the Fee Schedule set forth in Attachment "1", Tables 1A and 1B to this Project Agreement. Invoices will show the total amount billed against this work authorization and shall not exceed the not-to-exceed amount without authorization from the CITY. The CITY shall pay CONSULTANT within thirty (30) calendar days of approval by the City Manager of any invoices submitted by CONSULTANT to the CITY.

5.2 **Disputed Invoices.** In the event that all or a portion of an invoice submitted to the CITY for payment to the CONSULTANT is disputed, or additional backup documentation is required, the CITY shall notify the CONSULTANT within fifteen (15) working days of receipt of the invoice of such objection, modification or additional documentation request. The CONSULTANT shall provide the CITY with additional backup documentation within five (5) working days of the date of the CITY'S notice. The CITY may request additional information, including but not limited to, all invoices, time records, expense records, accounting records, and payment records of the CONSULTANT. The CITY, at its sole discretion, may pay to the CONSULTANT the undisputed portion of the invoice. The parties shall endeavor to resolve the dispute in a mutually agreeable fashion.

5.3 **Suspension of Payment.** In the event that the CITY becomes credibly informed that any representations of the CONSULTANT, provided pursuant to Subparagraph 5.1, are wholly or partially inaccurate, or in the event that the CONSULTANT is not in compliance with any term or condition of this Project Agreement, the CITY may withhold payment of sums then or in the future otherwise due to the CONSULTANT until the inaccuracy, or other breach of Project Agreement, and the cause thereof, is corrected to the CITY's reasonable satisfaction.

5.4 **Final Payment.** Submission of the CONSULTANT'S invoice for final payment and reimbursement shall constitute the CONSULTANT'S representation to the CITY that, upon receipt from the CITY of the amount invoiced, all obligations of the CONSULTANT to others, including its subconsultants, incurred in connection with the Project, shall be paid in full. The CONSULTANT shall deliver to the CITY all documents requested by the CITY evidencing payments to any and all subcontractors, and all final specifications, plans, or other documents as dictated in the Scope of Services and Deliverable. Acceptance of final payment shall constitute a waiver of any and all claims against the CITY by the CONSULTANT.

SECTION 6. TERMINATION/SUSPENSION

6.1 **For Cause.** This Project Agreement may be terminated by either party upon five (5) calendar days written notice to the other party should the other party fail substantially to perform in accordance with its material terms through no fault of the party initiating the termination. In the event that CONSULTANT abandons this Project Agreement or causes it to be terminated by the CITY, the CONSULTANT shall indemnify the CITY against any loss pertaining to this termination, unless the CONSULTANT is terminating the agreement due to the CITY's failure to provide timely approval and payment of invoices. In the event that the CONSULTANT is terminated by the CITY for cause and it is subsequently determined by a court of competent jurisdiction that such termination was without cause, such termination shall thereupon be deemed a termination for convenience under Section 6.2 of this Project Agreement and the provision of Section 6.2 shall apply.

6.2 **For Convenience.** This Project Agreement may be terminated by the CITY for convenience upon fourteen (14) calendar days' written notice to the CONSULTANT. In the event of termination, the CONSULTANT shall incur no further obligations in connection with the Project and shall, to the extent possible, terminate any outstanding subconsultant obligations. The CONSULTANT shall be compensated for all services performed to the satisfaction of the CITY and for reimbursable expenses incurred prior to the date of termination. The CONSULTANT shall promptly submit its invoice for final payment and reimbursement and the invoice shall comply with the provisions of Paragraph 5.1 of this Project Agreement. Under no circumstances shall the CITY make any payment to the CONSULTANT for services which have not been performed.

6.3 **Assignment upon Termination.** Upon termination of this Project Agreement, a copy of all of the CONSULTANT's work product shall become the property of the CITY and the CONSULTANT shall, within ten (10) working days of receipt of written direction from the CITY, transfer to either the CITY or its authorized designee, a copy of all work product in its possession, including but not limited to designs, specifications, drawings, studies, reports and all other documents and data in the possession of the CONSULTANT pertaining to this Project Agreement. Further, upon the CITY'S request, the CONSULTANT shall assign its rights, title and interest under any subcontractor's agreements to the CITY.

6.4 **Suspension for Convenience.** The CITY shall have the right at any time to direct the CONSULTANT to suspend its performance, or any designated part thereof, for any reason whatsoever or without reason, for a cumulative period of up to thirty (30) calendar days. If any such suspension is directed by the CITY, the CONSULTANT shall immediately comply with same. In the event the CITY directs a suspension of performance as provided for herein through no fault of the CONSULTANT, the CITY shall pay to the CONSULTANT its reasonable costs, actually incurred and paid, of demobilization and remobilization, as full compensation for any such suspension.

SECION 7. COMPLIANCE WITH LAW

7.1 **COMPLIANCE WITH LAWS** – The parties shall comply with all applicable local, state and federal laws and guidelines relating to the services that are subject to this Agreement. Federal regulations apply to all of the City of Marathon contracts using Federal funds as a source for the solicitation of goods and services. The following Federal requirements apply to this Emergency Agreement:

7.2 **ACCESS BY THE GRANTEE, SUBGRANTEE, FEDERAL GRANTOR AGENCY AND COMPTROLLER GENERAL:** The CONSULTANT shall allow access by the grantee, sub grantee, Federal grantor agency and Comptroller General of the United States, or any of their duly authorized representatives to any books, documents, papers, and records of the CONSULTANT which are directly pertinent to that specific contract for the purpose of making audit, examination, excerpts and transcriptions.

7.3 **CLEAN AIR AND WATER ACTS:** The CONSULTANT shall comply with all applicable standards, orders, or requirements issued under Section 306 of the Clean Air Act (42 U.S.C. 1857 (h)), Section 508 of the Clean Water Act (33 U.S.C. 1386), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR Part 15), (Contracts and/or subcontracts, and sub grants of amounts in excess of \$100,00.00).

7.4 **CONTRACT WORK HOURS AND SAFETY STANDARDS:** The CONSULTANT shall comply with Sections 103 and 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 327-330) as supplemented by Department of Labor regulations (29 CFR Part 5). (Construction contracts awarded by grantees and sub grantees in excess of \$2,000, and in excess of \$2,500 for other contracts which involve the employment of mechanics or laborers.)

7.5 **COPELAND ANTI-KICKBACK ACT:** The CONSULTANT shall comply with the Copeland Anti-Kickback Act (18 U.S.C. 874) as supplemented in Department of Labor regulations (29 CFR Part 3). (All contracts and sub grants for construction repair).

7.6 **COPYRIGHTS:** The Grantee is free to copyright original work developed in the course of or under the agreement.

7.7 **DISADVANTAGED BUSINESS ENTERPRISES (DBE) CONSULTANTS:** The CONSULTANT agrees to ensure that Disadvantage Business Enterprises as defined in 49 C.F.R. Part 23, as amended, have the maximum opportunity to participate in the performance of contracts and this agreement. In this regard, CONSULTANT shall take all necessary and reasonable steps in accordance with 49 C.F.R. Part 23, as amended, to ensure that the Disadvantaged Business Enterprises have the maximum opportunity to compete for and perform contracts. The CONSULTANT shall not discriminate on the basis of race, color, national origin or sex in the award and performance of federal assisted contracts.

7.8 **ENERGY POLICY AND CONSERVATION ACT:** The CONSULTANT shall comply with mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (Pub. L. 94-163).

7.9 **EQUAL EMPLOYMENT OPPORTUNITY:** The CONSULTANT shall comply with Executive Order 11246 of September 24, 1965, entitled "Equal Employment Opportunity," as amended by

Executive Order 11375 of October 13, 1967, and as supplemented in Department of Labor regulations (41 C.F.R. Chapter 60).

7.10 **BYRD ANTI-LOBBYING AMENDMENT (31 U.S.C. 1352)**—CONSULTANTS that apply or bid for an award exceeding \$100,000 must file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the non-Federal award.

PURSUANT TO F.S. 558.0035, AN INDIVIDUAL EMPLOYEE OR AGENT MAY NOT BE HELD INDIVIDUALLY LIABLE FOR ANY NEGLIGENCE.

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SECTION 8 Term/Time of Performance

8.1 This Project Specific Agreement shall be effective on the date it is fully executed by all parties and shall continue in full force for 26 months or until completion of the Project, unless otherwise terminated pursuant to this Agreement. The City Engineer or Manager, in his sole discretion, may extend the term of this Project Specific Agreement through written notification to the CONSULTANT. Such an extension shall not exceed 8 months. No further extensions of this Project Specific Agreement shall be effective unless authorized by the City Engineer or Manager.

8.2 The CONSULTANT's services under this Project Specific Agreement and the time frames applicable to this Project Specific Agreement shall commence upon the date provided in a written Notification of Commencement ("Commencement Date") provided to the CONSULTANT from the CITY. The CONSULTANT shall not incur any expenses or obligations for payment to third parties prior to the issuance of the Notification of Commencement. CONSULTANT must receive written notice from the CITY prior to the beginning the performance of services.

8.3 Upon receipt of the Notification of Commencement, the CONSULTANT shall commence services to the CITY on the Commencement Date, and shall continuously perform services to the CITY, without interruption, in accordance with the time frames set forth in the Project Schedule."

SECTION 9 Project Records

9.1 All final plans, documents, reports, studies and other data prepared by the CONSULTANT or a subconsultant will bear the endorsement of a person in the full employ of the CONSULTANT or the subconsultant and duly registered in the appropriate professional category.

9.2 After the CITY's acceptance of final plans and documents, an electronic copy of the CONSULTANT's or the sub consultant's final drawings, tracings, plans and maps will be provided to the CITY at no additional cost to the CITY.

9.3 Upon completion of any construction by a contractor on a project assigned to CONSULTANT, the CONSULTANT shall furnish acceptable field verified "record drawings" of the work on full sized prints (and/or electronic data file if requested by the CITY). The CONSULTANT shall signify, by affixing an appropriate endorsement on every sheet of the record sets that the work shown on the endorsed sheets was reviewed by the CONSULTANT.

9.4 The CONSULTANT shall not be liable for use by the CITY of said plans, documents, studies or other data for any purpose other than stated in the applicable Project Specific Agreement.

9.5 All tracings, documents, data, deliverables, records, plans, specifications, maps, surveys, field survey notes, and/or reports prepared or obtained under this Agreement shall be considered works made for hire and shall become the property of CITY, and reproducible copies shall be made available upon request to the CITY.

9.6 All project records shall be maintained by CONSULTANT and made available upon request of the CITY.

9.7 CITY at all times for the duration of this Agreement and during the period stated by Florida Records Retention Schedules. During this time period the City Manager or designee have access to and the right to examine and audit any records of the CONSULTANT involving transactions related to this Agreement, including its financial records. The CITY may cancel this Agreement for refusal by the CONSULTANT to allow access by the City Manager or designee to any records pertaining to work performed under this Agreement.

SECTION 10 — Ownership and Access to Public Records.

10.1 All records, books, documents, maps, data, deliverables, papers and financial information (the "Records") that result from the CONSULTANT providing services to the CITY under this Agreement shall be the property of the CITY.

10.2 The CONSULTANT is a "Contractor" as defined by Section 119.0701(1)(a), Florida Statutes, and shall comply with the public records provisions of Chapter 119, Florida Statutes, including the following:

1. Keep and maintain public records required by the CITY to perform the service.
2. Upon request from the City Clerk, provide the CITY with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes or as otherwise provided by law.
3. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the CONSULTANT does not transfer the records to the CITY.
4. Upon completion of the contract, transfer, at no cost, to the CITY all public records in possession of the CONSULTANT or keep and maintain public records required by the CITY to perform the service. If the CONSULTANT transfers all public records to the CITY upon completion of the contract, the CONSULTANT shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the CONSULTANT keeps and maintains public records upon completion of the contract, the CONSULTANT shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the CITY, upon request from the City Clerk, in a format that is compatible with the information technology systems of the CITY.

10.3 "Public Records" is defined in Section 119.011(12), Florida Statutes, and includes all documents, papers, letters, photographs, data processing software, or other material, regardless of physical form, made or received in connection with this Agreement.

10.4 Should the CONSULTANT assert any exemption to the requirements of Chapter 119 and related law, the burden of establishing such exemption, by way of injunctive or other relief as provided by law, shall be upon the CONSULTANT.

10.5 The CONSULTANT consents to the CITY's enforcement of the CONSULTANT's Chapter 119 requirements by all legal means, including, but not limited to, a mandatory injunction, whereupon the CONSULTANT shall pay all court costs and reasonable attorney's fees incurred by the CITY.

10.6 The CONSULTANT's failure to provide public records within a reasonable time may be subject to penalties under Section 119.10, Florida Statutes. Further, such failure by the CONSULTANT shall be grounds for immediate unilateral cancellation of this Agreement by the CITY.

10.7 IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT 305-743-0033, CITYCLERK@CI.MARATHON.FL.US, OR 9805 OVERSEAS HIGHWAY, MARATHON FLORIDA 33050.

SECTION 11 E-VERIFY

11.1 **E-Verify System** - Beginning January 1, 2021, in accordance with F.S. 448.095, the CONSULTANT and any subcontractor shall register with and shall utilize the U.S. Department of Homeland Security's E-Verify system to verify the work authorization status of all new employees hired by the CONSULTANT during the term of the Contract and shall expressly require any subcontractors performing work or providing services pursuant to the Contract to likewise utilize the U.S. Department of Homeland Security's E-Verify system to verify the work authorization status of all new employees hired by the subcontractor during the Contract term. Any subcontractor shall provide an affidavit stating that the subcontractor does not employ, contract with, or subcontract with an unauthorized alien. The CONSULTANT shall comply with and be subject to the provisions of F.S. 448.095

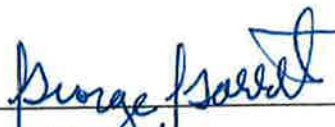
PAYMENT UNDER THIS PROJECT SPECIFIC AGREEMENT SHALL ONLY BE MADE FROM APPROPRIATIONS BUDGETED ON AN ANNUAL BASIS.

IN WITNESS WHEREOF, the parties have executed this instrument on this 16th day of December, 2024.


CONSULTANT:

By: 
Its: Senior Vice President

CITY:

By: 
Its: City Manager

ATTEST:

for: 
Diane Clavier, City Clerk *Deputy Clerk*

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


City Attorney

This agreement shall be executed on behalf of CONSULTANT by its President or a Vice President. If executed by a person other than CONSULTANT's President or a Vice President, then attach evidence of that person's actual authority to bind CONSULTANT to this agreement.

Exhibit A



"Excellence in Engineering"

6805 Overseas Highway
Marathon, Florida 33050
(305) 289-4161 ph.
(305) 289-4162 fax

Recommendation of Award

To: Dan Saus, City of Marathon

From: Ed Castle, P.E.

Date: 11/25/2024

Re: Deep Injection Well Design, Bidding & CEI Recommendation of Award

The City of Marathon published a Request for Qualifications (RFQ) for the engineering services for the design, permitting and construction phase services for the Deep Injection Well to be sited at the Area 6 WWTP. The City received two Statements of Qualifications (SOQ) which were reviewed and ranked. The City Council authorized the City Manager to enter into price negotiations with the highest ranked respondent, Water Science Associates (WSA).

The City asked the Weiler Engineering Corporation (WEC) to review the pricing proposal to ensure the scope was complete and to determine if the proposed fee was acceptable. WEC staff found a few items of the scope of work that were left out of the proposal and requested that WSA modify the scope of their proposal to more accurately reflect the scope of work as specified in the RFQ. WSA responded positively and provide the modified proposal with the updated scope of work. WEC has reviewed and approved the revised scope of work.

WSA's proposed price in the original proposal was deemed to be acceptable and appropriate for the scope of work. After having modified the scope of work in the proposal, we discussed pricing with WSA. They have agreed to maintain that not-to-exceed price as expressed in their original proposal at \$2,833,200.00. The offered price is approximately 30% less than the Engineer's Estimate for this work in the Juturna Effluent Disposal Options report. Weiler Engineering recommends that the City enter into an agreement with WSA to provide design, permitting and construction phase engineering services in the amount of \$2,833,200.00. The scope of work and the pricing is presented in the attached proposal from WSA.

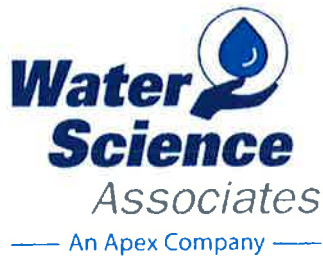
ATTACHMENT NO. 1

2024 Marathon Area 6 WWTF UIC Well Proposal (November Revised)

ATTACHMENT NO. 1

2024 Marathon Area 6 WWTF UIC Well Proposal (November Revised)





November 20, 2024

Mr. Dan Saus, P.E.
C/o Ed Castle, P.E., Weiler Engineering Corporation
City of Marathon
9805 Overseas Highway
Marathon, Florida 33050

**RE: Proposed Class I UIC Injection Well Scope of
Services Proposal - REVISED Monroe County,
Florida**

Dear Dan,

Water Science Associates, an Apex Company (Water Science) is pleased to provide this proposal to the City of Marathon for the design, underground injection control (UIC) permitting, and construction oversight services for the proposed Marathon Area 6 wastewater treatment plant (WWTP) deep injection well. The City of Marathon (City) as a result of a settlement agreement with a local environmental group, will apply for an UIC permit from the Florida Department of Environmental Protection (FDEP) and construct an approximately 3,500-foot-deep Class I UIC injection well at the Marathon Area 6 WWTP capable of disposing the entire volume of treated wastewater effluent permitted to be produced at the City of Marathon's Area 3, Area 4, Area 5, Area 6, and Area 7 WWTPs plus the permitted effluent treatment volume produced at the Duck Key WWTP, which is operated by the Florida Keys Aqueduct Authority (FKAA), and for the Key Colony Beach WWTP, which is operated by the City of Key Colony Beach.

The deep injection well will target the Boulder Zone of the Eocene Oldsmar Formation. The City intends to use their existing shallow injection wells located at the five wastewater treatment plants as the backup disposal method to the proposed the Marathon Area 6 WWTP Class I UIC deep injection well. The existing City of Marathon WWTPs have a combined permitted treatment and disposal capacity of 1.5 million gallons per day (MGD). The City is projecting an increase in the permitted treatment and disposal capacity to 1.65 MGD by 2060. The Duck Key WWTP and Key Colony Beach WWTP are assumed to have permitted rates that are essentially at buildout and are 0.274 MGD and 0.340 MGD, respectively. As such, the proposed Marathon Area 6 WWTP Class I deep injection well will be designed for a minimum flow rate of approximately 2.264 MGD. The treated effluent will be delivered to the Marathon Area 6 WWTP via a 10-inch conveyance pipe.

The Water Science Team has one of the deepest benches of geologists and hydrogeologists in Florida with extensive experience in Class I UIC injection well design, permitting, and construction oversight experience. Our project team consists of Water Science, Carollo Engineers (Carollo), and ADS Engineering, Inc. (ADS). ADS Engineering will be a subconsultant to Carollo. The Water Science Team includes over 20 dedicated professionals, including five PGs and four PEs. Our project team was deliberately assembled to meet all the needs of this project for design, permitting, professional construction oversight, and operational approvals for the proposed Class I UIC injection well at the Marathon Area 6 WWTP. Every member assigned to this project will be, at a minimum, a Florida-based degreed geologist or degreed engineer (i.e., no technicians, college students or employees from out of state). All work completed by the team will be directly overseen by Florida-licensed professionals with extensive experience in every phase of the project.

While Water Science will complete all scope of work items below grade (hydrogeology, well design, and UIC injection well permitting), Carollo will focus on all scope of work items above grade, such as injection well pump stations, yard piping, ground storage tanks, and buildings.

For this Class I UIC injection well project, Rommy Lahera, PG, will manage the project and lead the well design, permitting, and construction management team; supporting Rommy will be Kirk Martin, PG, as the Principal-in-Charge; Mike Alfieri, PG, as Geologist of Record; and Lyle Munce, PE, from Carollo, who will lead the above ground design team as Engineer of Record. Together, we offer the optimum combination of technical expertise and project management experience to best meet your needs.

Team Member (Firm)	Role	Responsibilities
Kirk Martin, PG (Water Science)	Officer-In-Charge	<ul style="list-style-type: none"> Responsible for entire project from permitting through construction oversight
Mike Alfieri, PG (Water Science)	Principal/Geologist of Record	<ul style="list-style-type: none"> Responsible/Sealing for all geologic documentation submitted for the project (permitting, design, etc.) Assist on well design and permitting Assist Project Manager with well construction oversight Additional quality assurance
Rahul John, PG (Water Science)	Principal/Quality Assurance	<ul style="list-style-type: none"> Responsible for internal review of all materials provided to the City regarding the design, permitting, and construction oversight of the well
Rommy Lahera (Water Science)	Senior Geologist/Project Manager	<ul style="list-style-type: none"> Overall project management and coordination tasks such as project planning, project controls, subconsultant management, invoicing and reporting, and oversight of quality assurance/quality control activities Prepare a project execution plan for the development and execution of the injection well project Develop a baseline schedule that will indicate key (critical path) project activities, including data collection, design, permitting and construction phases of the overall project Project meetings Responsible for well design, permitting, and the construction oversight Main Point-of-Contact for the City Representative
Lyle Munce, PE (Carollo)	Senior Engineer/Engineer of Record	<ul style="list-style-type: none"> Limited project management and coordination tasks such as project planning, project controls, subconsultant management, invoicing and reporting, and oversight of quality assurance/quality control for all above grade design and construction activities Responsible for the design and construction implementation of well head, piping, pump station, etc. and other associated aboveground engineering Responsible/Sealing for all engineering documentation submitted for the project (permitting, design, etc.)

The Water Science Team proposes the following tasks to complete Marathon Area 6 WWTP Class I UIC deep injection well project in accordance with the settlement agreement.

DEEP INJECTION WELL DESIGN, PERMITTING, AND BID SERVICES (Work Task Nos. 1 through 9)

Task 1. Project Administration – Project management includes activities related to initiating, planning, executing, controlling, and closing the project. Under this Task, the Water Science Team will be responsible for overall coordination and oversight of the project execution. The Project Manager (PM) will be the primary point of contact with the City and will lead the Water Science Team during the project execution focusing on quality completion of the project tasks on schedule and budget.

The Water Science Team understands that the total project duration will be approximately 26 months from Notice to Proceed to substantial construction. The duration for design and permitting is anticipated to be 12 months.

Project Management: The Water Science Team will perform overall project management and coordination of tasks such as project planning, project controls, subconsultant management, invoicing and reporting, and oversight of quality assurance/quality control (QA/QC) activities. During this task, the Water Science Team will perform the following activities or milestones.

- **Project Execution Plan:** The Water Science Team will prepare a Project Execution Plan for the development and execution of the Marathon Area 6 WWTP Class I deep injection well. The Plan

Mr. Dan Saus, P.E.
C/o Ed Castle, P.E., WEC
City of Marathon
Proposed Class I UIC Injection Well Scope of Services
Proposal Monroe County, Florida
November 20, 2024
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will include a collection of documents that communicate the essential information about the project to everyone involved in the project delivery. The Project Execution Plan will include, but is not limited to, the following:

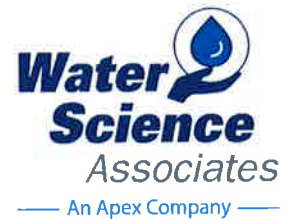
- Project goals and objectives
 - Work breakdown structure
 - Communication protocol
 - Document management system
 - Budget and project schedule
 - Monitoring and reporting plan
 - Deliverable submittal and review process plan
 - QA/QC Plan
 - Safety Plan
- **Baseline Schedule:** The Water Science Team will develop a baseline schedule that will indicate key (critical path) project activities, including data collection, design, permitting and construction phases of the overall project. The baseline schedule will contain the notice to proceed date, milestone dates, quality management activities, the project completion date and the sequence and interdependence of summary level activities showing starting and completion calendar dates for activities and activity duration in number of calendar days required to finish the project on schedule.
- After acceptance of the Water Science Team's baseline schedule by the City, we will revise and update the progress schedule after each major milestone, depicting scheduled progress of key activities on a percent (%) complete basis, progress to milestones and through completion.
- **Subconsultant Coordination and Administration:** The Water Science Team will manage the subconsultant and coordinate the actions required to implement the design.
- **Monthly Reporting and Invoicing:** The Water Science Team will prepare monthly progress reports in support of invoices to describe the work performed during the previous reporting period. The format and content of the invoice will be in accordance with directions provided by the City. The Monthly Project Status Report will include, but is not limited to, the following information:
- Recent progress
 - Budget and schedule status
 - Planned activities
 - Critical matters

Project Meetings: The Water Science Team will attend the following meetings during the project.

- **Initiation/Kickoff Meeting:** The goal of the meeting is to confirm the City's goals and objectives, identify roles, responsibilities, and communication protocols for project team members. The scope of work and data needs, the Water Science Team overall Project Execution Plan, deliverables, schedule, and critical milestones will be discussed. Water Science assumes that the Project Manager, Project Technical Lead, and key Design Team members (including subconsultants) will attend this meeting.
- **Monthly Progress Meetings:** Water Science (Project Manager and/or Project Technical Lead) will participate in monthly progress meetings with the City representatives to keep the City informed of the project progress and to obtain input and direction as required for outstanding project issues. A recurring day and time will be established for the meetings. Meeting objectives will be to provide progress updates and reach decisions on pertinent issues related to the specific topics being addressed in a timely fashion. Progress meetings will be attended by project management staff solely unless the Water Science Team determines technical disciplines are required to participate. Other key team members may attend from time to time by phone, video, or in person. Prior to each Monthly Progress Meeting, the Water Science Team will provide the City's PM with a list of topics or issues for discussion or resolution for inclusion in the meeting agenda. Minutes will be distributed one (1) week after the meeting date. Water Science anticipates up to twenty-eight (28) progress meetings during the project virtually via

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Teams.



- **Team Coordination Meetings with Carollo Engineers (Sub-Consultant):** Water Science (Project Manager and/or Project Technical Lead) will attend coordination meetings with Carollo Engineers to coordinate requirements between the City and other state and local regulatory agencies, as needed or required. Water Science anticipates up to twenty-eight (28) progress meetings during the project virtually via Teams.
- **Discipline Project Meetings:** The Water Science Team understands that the project will require additional meetings with the City (i.e., meetings for specific project issues or site visits). The Water Science Team assumes up to twelve (12) meetings outside of the regular progress meetings with the City virtually via Teams. This excludes Team coordination meetings.

The total cost for **Task 1** is **\$131,500 (Lump Sum)**. See **Table 1A** for the hourly breakdown of this work task.

Task 2. Data Compilation and Basis of Design Development – The Water Science Team will review available existing technical documents related to the facilities and underlying hydrogeology. The documents will include existing and previously issued permits and relevant supporting documents, regional hydrogeologic studies, facility design documents, and related site-specific consultants' reports. We will search public databases of governmental agencies (the Florida Department of Environmental Protection [FDEP], Florida Geological Survey [FGS], the U.S. Geological Survey [USGS], and the South Florida Water Management District [SFWMD]) and coordinate with the project team to compile available documents related to the project. Maps, drawings, and summary tables will be generated under this task for later use in the system evaluation and expansion design elements of the project. We will coordinate with the project team to identify design preferences and integration with existing and proposed facility construction and operations. A preliminary cost estimate for the permitted and constructed system will be provided.

The total cost for **Task 2** is **\$35,250 (Lump Sum)**. See **Table 1A** for the hourly breakdown of this work task.

Task 3. 30 Percent Injection Well System Design – The Water Science Team will prepare a 30 Percent Design Report as part of the Design task **within 90 days** from receipt of all required information from the City. We will also coordinate with other consultants and contractors employed by the City and tasked to perform other related projects. The parts of the PDR to be prepared include the following:

- Introduction, including background, purpose, and scope
- Description of existing facilities and existing site plan, including process flow diagram
- Population and Flow Projections/basis of design for capacity
- Evaluation of Alternatives and Recommended Approach
- Recommended improvements, including the following:
 - Proposed site plans
 - Civil/site requirements, including yard piping
 - Proposed process flow diagrams
 - Class I Injection Well Conceptual Design, including the following:
 - Proposed depths and dimensions, materials, and design pumping rates
 - Class I injection well and a dual zone monitor well siting and spacing options/preferred well locations
 - Conceptual design drawings of the Class I injection well and associated monitor wells (both shallow pad and dual zone monitor wells)
 - Evaluation of available laydown area) needed for construction adjacent to and accessible to the injection and dual zone monitor well locations
 - Process-mechanical requirements, including the following:
 - Class I UIC injection and dual zone monitor well wellhead piping, controls, metering, and related monitoring equipment
 - Pump Station Wet Well at the Marathon Area 6 WWTP
 - Building mechanical requirements for proposed electrical building (by others), if

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required, including standby power generator and fuel oil bulk storage tank

- Architectural – not included
- Structural requirements for new pump station, if required
- Electrical requirements, including:
 - Evaluation of the proposed electrical system
 - Proposed layout of electrical building and generator system for the Marathon Area 6 WWTP project site, if required
 - Coordination with electric utility company
 - Preliminary single line diagrams
- Instrumentation and control (I&C) requirements.
- Geotechnical & survey information will be provided to design team by others
- Opinion of probable construction cost
- Coordination with contractors/consultants on other related projects
- Project Schedule
- Maintenance of Plant Operations (MOPO) Plan
- Manufacturer's Literature for recommended equipment
- Implementation Plan, including project schedule and required permits/approvals

The Water Science Team will meet with the City Engineering and Operations staff in the field to verify existing conditions and planned improvements. The Water Science Team will also meet and coordinate with Florida Keys Electric Cooperative Association, Inc. (FKEC) during project design with particular attention to load control planning. A Summary of Drawing Content for the anticipated design drawings (issued for construction includes the following major disciplines:

- Civil/Site
- Process Mechanical
- Electrical
- I&C
- Building Mechanical (Plumbing/HVAC)
- Structural

Technical Specifications will be based on the 6-digit format of the Construction Specifications Institute (CSI) in MS Word format. In addition to technical specifications, the Water Science Team will coordinate with the City to customize and modify the CITY provided General Conditions, Supplemental Conditions, and Special Provision Specifications for the project. Standard Specifications may be used for reference, but the Water Science Team will not rely on them as a replacement for sound engineering judgment and responsibility. The Water Science Team will prepare a single set of specifications for the City. **FDEP Supplementary Conditions section will be needed for the use of State funding.**

The Water Science Team will conduct an internal quality assurance/quality control (QA/QC) review of the draft PDR prior to submission to the City. We will prepare and submit a 30 percent DRAFT PDR to the City for review and comment. This will include a 30 Percent Design estimated cost for the permitted and constructed system. We will prepare for and conduct a workshop/review meeting with the City to review the PDR. The workshop will be held in combination with a regular progress meeting.

The total cost for **Task 3** is **\$180,000 (Lump Sum)**. See **Table 1A** for the hourly breakdown of this work task.

Task 4. 60 Percent Injection Well System Design – Based on feedback from the City on the 30 Percent Injection Well System Design, the Water Science Team will make necessary revisions and prepare 60 percent design drawings and specifications for construction of the injection well. Design elements to be provided by the Water Science Team include well locations, well dimensions, construction materials, construction sequences, construction methods, well completion design, and recommended injection rates.

As part of the 60 Percent Injection Well System Design, the Water Science Team will:

- Respond to comments on the preliminary design and finalize design criteria
- Evaluate geotechnical, survey, and environmental findings (as needed)
- Prepare specifications for pre-purchase items (if appropriate)
- Develop 60 percent specifications
- Develop 60 percent complete design drawings

The 60 percent design submittal will consist of a full set of construction plans, including cover sheet, location map and general notes, plan views for all improvements, and standard and specific details. A sequence of construction plans will be included, and a constructability review will be performed. Plans will be prepared on 22-inch by 34-inch drawings/PDFs. This will include a 60 Percent Design estimated cost for the permitted and constructed system.

We will conduct one (1) 60 percent plan review workshop with the City. Upon completion and agreement to the resolution of comments, the plans and specifications will be revised and approved by the City to proceed with the final design.

The total cost for **Task 4** is **\$146,250 (Lump Sum)**. See **Table 1A** for the hourly breakdown of this work task.

Task 5. 90 Percent Injection Well System Design – Based on feedback from the City on the 60 Percent Injection Well System Design, the Water Science Team will make necessary revisions and prepare 90 percent design drawings and specifications for construction of the injection well. Design elements to be provided by the Water Science Team include well locations, well dimensions, construction materials, construction sequences, construction methods, well completion design, and recommended injection rates.

As part of the 90 Percent Injection Well System Design, the Water Science Team will:

- Develop 90 percent specifications
- Develop 90 percent complete design drawings

The 90 percent design submittal will consist of a full set of construction plans, including cover sheet, location map and general notes, plan views for all improvements, and standard and specific details. A sequence of construction plans will be included, and a constructability review will be performed. Plans will be prepared on 22-inch by 34-inch drawings/PDFs. This will include a 90 Percent Design estimated cost for the permitted and constructed system.

We will conduct one (1) 90 percent plan review workshop with the City. Upon completion and agreement to the resolution of comments, the plans and specifications will be revised and approved by the City to proceed with the final design.

The total cost for **Task 5** is **\$112,750 (Lump Sum)**. See **Table 1A** for the hourly breakdown of this work task.

Task 6. Final Injection Well System Design – The Water Science Team will make necessary revisions to the 90 percent design drawings and specifications and prepare final design drawings and specifications for construction of the injection wells. Design elements to be provided by the Water Science Team as part of this task will include revisions to any previously submitted drawings and plans. A Bid Schedule will be prepared to match the Measurement and Payment section in the specifications. The final design documents will be transmitted electronically (in PDF format) to the City for bidding on the project.

In preparing the final opinion of probable construction cost, the Water Science Team's estimating methodology complies with estimating standards developed by the American Society of Professional Estimators (ASPE) and the Association for the Advancement of Cost Engineering (AACE). Estimates to be performed at various stages of design comply with industry standards for design level, contingency provisions, and accuracy. For the final design level estimate, accuracy is expected to be +10 to -5 percent with a contingency of 10 to 20 percent.

The Water Science Team has made certain design assumptions and/or clarifications to prepare a scope of work for the design and are as follows:

- Yard piping record drawings are available, and the Water Science Team can rely on this information
- Electrical record drawings for the proposed facility will be made available, and the Water Science Team can rely on this information with no further evaluation. Where they are not complete or accurate, the level of effort for tasks associated with missing information will increase, for example development of motor control diagrams. The work will include confirming the desired operation with the City staff and field verification for record drawing accuracy. In the event the existing data is incomplete or unreliable, there may be a change to scope, schedule and/or budget required.
- New motor control centers (MCCs), and variable frequency drives (VFDs), and generators will communicate with the Supervisory Control and Data Acquisition (SCADA) systems via ethernet connections.
- All new equipment installed in areas that are classified as hazardous areas according to the National Fire Protection Association (NFPA) 820 Code will comply with NFPA 820 requirements.
- It is assumed that electric service is already available.

Integration of Design Documents: Based on the construction contractor's availability, funding, construction schedule conflicts, the City may decide to bid out the above-ground and below-ground designs under one solicitation. The Water Science Team will coordinate with the City's Engineer and Procurement as needed and determine the best approach for bidding the work. If it is determined that all the plans, specifications and drawings need to be integrated into one bid package, the Water Science Team will utilize the budget under this task.

Coordination on Early Procurement Packages: The length of construction time for the Marathon Area 6 WWTP project site will be driven largely by the long lead time required for the procurement of the major equipment from the manufacturer. For example, anticipated production and delivery time for the standby power generators is fifty-two (52) weeks following development and approval of shop drawing submittals. However, a common means of compressing the delivery schedule, with the engineer, contractor, and equipment manufacturer preselected, is to pre-purchase the materials and equipment. Therefore, given current market conditions and extended delivery times, the Water Science Team will prepare early procurement design packages for pre-purchase of construction materials and equipment. This task will include pre-purchase of the following:

- Large Diameter Casing/Piping and Valves
- Class I injection well pumps and motors
- MCCs
- Standby Power Generators

The early procurement design packages will be prepared in sufficient detail, including drawings and specifications, to support the purchase and installation of the recommended equipment. This Task will include the Water Science Team submittal reviews necessary to facilitate owner-direct-purchase of the major equipment as well as submittal reviews intended to facilitate the purchase of construction materials and equipment. This will include a Final Design estimated cost for the permitted and constructed system.

The total cost for **Task 6** is **\$34,000 (Lump Sum)**. See **Table 1A** for the hourly breakdown of this work task.

Task 7. FDEP Underground Injection Control Permitting – The Water Science Team will provide support of the permitting process for the proposed system the completion of associated applications, assembling technical support documentation, certifying as the engineer-of-record, answering requests for information, and reviewing the issued permit documents.

After finalizing the injection well system design and siting, the Water Science Team will prepare and submit to the FDEP a comprehensive application package to obtain a construction and testing permit for one (1) Underground Injection Control (UIC) Class I deep injection well and the related dual zone monitoring well. The application package will include supporting documents such as a detailed well inventory of all producing wells, injection wells, dry holes, surface water bodies, quarries, and water wells within the area of influence of the proposed UIC disposal well, a tabulation of all wells that penetrate the proposed injection or monitoring zones, regional geologic cross sections detailing the hydrogeology and hydrogeologic structures of the local area, an estimate of the base of the Underground

Sources of Drinking Water (USDW), pertinent engineering drawings, proposed injection, monitoring, and operation procedure, proposed testing program during the construction process, etc. The Water Science Team will proactively work with the FDEP staff to minimize processing times and facilitate smooth transition into the construction phase of the project. Additional non-UIC permits may be required. It is our understanding that the City's staff will be addressing these. If the City requires assistance with those permits, we will provide a proposal under separate cover.

Prepare Responses to Requests for Additional Information The Water Science Team will submit a comprehensive UIC permit application package to the regulatory agencies. However, given the nature of UIC program regulations in Florida, one or more requests for additional information (RAIs) may be expected. The exact nature of those requests cannot be anticipated with a high degree of accuracy. The Water Science Team will respond to all RAIs associated with the UIC permit application.

The Water Science Team has made certain assumptions and/or clarifications to prepare a project budget and complete the scope of work for permitting. These assumptions are as follows: (1) the Water Science Team will be responsible for the FDEP UIC permits associated with the Class I UIC deep injection well, and (2) the City will pay all permitting fees.

The total cost for **Task 7** is **\$75,000 (Lump Sum)**. See **Table 1A** for the hourly breakdown of this work task.

Task 8. FDEP Underground Injection Control Permitting Regulatory Meetings – This task is associated with outside regulatory agency meetings, such as preapplication meetings, questions related to the permitting application, or questions related to any request of additional information meetings. The total cost for **Task 8** is **\$10,000 (Time and Materials Not to Exceed)**. See **Table 1A** for the hourly breakdown of this work task. It should be noted that Water Science billing rates change every April 1 with compensation adjustments.

Task 9. Contractor Bid Services – Considering there is a limited number of injection well contractors, who are qualified to drill an injection well into the Boulder Zone, the Water Science Team will work with the City to prepare an Invitation to Bid. Following the Invitation to Bid, the Water Science Team will attend the pre-bid meeting for each bidding package, which will be administered by the City. The Water Science Team will review and respond to the questions received from the contractors and will prepare addendums (as warranted) for each bidding package (if necessary). Water Science will provide a bond amount set by the City to be met by the driller, if selected, as well as require providing current insurance documents. The Water Science Team will review the bids received and make a recommendation on the award of the contract.

The total cost for **Task 9** is **\$42,500 (Time and Materials Not to Exceed)**. See **Table 1A** for the hourly breakdown of this work task. It should be noted that Water Science billing rates change every April 1 with compensation adjustments.

The total cost for the design, permitting, and bidding services is \$767,250 (Lump Sum + Time and Materials).

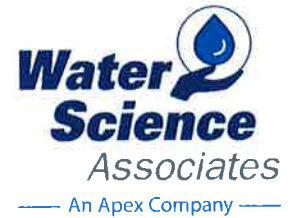
DEEP INJECTION WELL CONSTRUCTION OVERSIGHT AND MANAGEMENT (Work Task Nos. 10 through 16)

Task 10. Construction Management and Administration – The Water Science Team will provide construction phase engineering management and administration services for each bidding package which will be administered by the City.

- **Conformed Plans and Specifications:** The Water Science Team will conform the bid plans and specifications to reflect changes and clarifications made during the bidding phase. The Water Science Team will prepare responses to Contractor Requests for Information (CRI). The Water Science Team will issue necessary clarifications and interpretations of the Contract Documents as appropriate to the orderly completion of the Work. Such clarifications and interpretations are to be consistent with the intent of and reasonably inferable from the Contract Documents.

- **Scheduling:** The Water Science Team will review the selected Contractor's initial critical path method (CPM) schedule and the monthly Contractor updates.
- **Construction Kick-off and Progress Meetings:** The Water Science Team will attend the pre-construction meeting and bi-weekly progress meetings (virtual) with the construction team.
- **General Administration of Construction Contract:** The Water Science Team will coordinate with the City during construction phase activities. The Water Science Team shall consult with and advise the City, while acting as the City's representative as provided in the Contract Documents. The Water Science Team shall evaluate and render the initial opinions to the City on potential change order items from the selected contractor relating to the acceptability of the work or the interpretation of the requirements of the Contract Documents pertaining to the execution and progress of the work.
- **Change Orders and Work Change Directives:** The Water Science Team will review and provide feedback on Change Order individual items or Work Change Directives relating to the Water Science Team's design.
- **Shop Drawings and Other Submittals:** The Water Science Team will receive, review and process shop drawing submittals from Contractor. Review and take appropriate action in respect to Shop Drawings defined in the Water Science Team's Specifications, but only for conformance with the information given in the Contract Documents and compatibility with the design concept of the completed Project as a functioning as indicated by the Contract Documents. Such reviews will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions and programs incident thereto.
- **Applications for Payment:** The Water Science Team will assist the City with review of progress payments and make timely recommendations to City regarding the Applications for Payment. Such recommendations of payment will be in good faith based on the Water Science Team's knowledge, information and belief that the Work has progressed to the point indicated; the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion); and the conditions precedent to the selected contractor's being entitled to such payment appear to have been fulfilled in so far as it is the selected contractor's responsibility to observe the selected contractor's work.
- **Substantial Completion:** Following notice from the selected contractor that they consider the entire work ready for its intended use, the Water Science Team and the City, accompanied by the selected contractor, shall conduct one (1) inspection of the construction site to determine if the work is Substantially Complete. A list of deficiencies and omissions identified by the Water Science Team and design firm will be prepared. The Water Science Team will be responsible for delivering to the City and the selected contractor the list of any deficiencies and omissions to be corrected prior to either considering the project Substantially Complete or those that need to be completed prior to Final Acceptance. The Water Science Team will be responsible for delivering a Certificate of Substantial Completion to the City and the selected contractor when the work is deemed Substantially Complete.
- **Final Notice of Acceptability of the Work:** The Water Science Team shall conduct one (1) final inspection to determine if the completed work of the selected contractor is acceptable so that the Water Science Team may recommend, in writing, final payment to the selected contractor. Accompanying the recommendation for final payment, the Water Science Team shall indicate that the work is acceptable to the Water Science Team's knowledge and based on the extent of the services performed and furnished by the Water Science Team under this Agreement. The Water Science Team will prepare a "Certification of Construction Completion and request for a

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Letter of Clearance" for submittal to FDEP, as required.

- **Record Drawings:** The Water Science Team shall review the selected contractor's As-Built drawings for any material deviations to design intent after Substantial Completion. The Water Science Team shall prepare Record Drawings which incorporate the selected contractor's mark-ups and will provide them to the City. The Water Science Team shall review and organize equipment manufacturer operation and maintenance (O&M) manuals and provide it to the City.

- **Site Visits:** The Water Science Team shall visit the site of the proposed improvements and visually observe the construction areas designated on the construction plans in cooperation with the City's utility staff. Observations are not intended to be exhaustive or to involve detailed inspections of the Work in progress, but rather are to be limited to spot checking and general observation of the Work based on the Water Science Team's exercise of professional judgment, as assisted by the Resident Project Representative (RPR), if any, to confirm general compliance with the Water Science Team's design. Based on information obtained during such visits and observations, the Water Science Team will determine if, in general, the Work is proceeding in accordance with the Contract Documents and will keep the City informed of the progress of the Work.

The total cost for **Task 10** is **\$186,500 (Time and Materials Not to Exceed)**. See **Table 1B** for the hourly breakdown of this work task. It should be noted that Water Science billing rates change every April 1 with compensation adjustments.

Task 11. Below-Grade Construction Oversight Services – The Water Science Team shall provide the services of a full-time Resident Representative Services (RPR) for the duration of the construction activities. RPR is the Water Science Team's agent at the site, will act as directed by and under the supervision of the Water Science Team and will confer with the Water Science Team regarding the RPR's actions. RPR's dealings in matters pertaining to the on-site work shall in general be with the Water Science Team, the City and the selected contractor. The RPR shall generally communicate with the City with the knowledge of and under the direction of the Water Science Team.

Well Drilling/Construction. Downhole construction is anticipated to occur over a 12-month duration and executed on a 24 hour per day, seven day per week schedule. The Water Science Team will provide comprehensive management during the construction of the deep injection and dual zone monitoring wells. The Water Science Team will provide a qualified Senior Field Supervisor who will be on call 24 hours a day / 7 days a week and has in-depth knowledge of local geology and experienced in trouble shooting and solving drilling related issues which often slow down the project progress if not resolved in a timely manner. The Senior Field Supervisor will ensure that appropriate team members are providing the necessary review of performance and adherence to the schedule and that quality control procedures are followed. Submittals from the selected contractor will be promptly reviewed to ensure compliance with Specifications. During active drilling and testing, the Water Science Team will have an RPR or a Qualified Geologist working under the direction of a Florida Licensed Professional Geologist onsite to observe the drilling and testing operations during all critical construction and testing activities including all pilot hole penetration, geophysical logging, casing setting, cementing, downhole hydraulic and water quality testing. The Water Science Team's construction management team will coordinate tests and maintain communications with the appropriate regulatory personnel to ensure compliance with applicable regulatory standards and with the construction Specifications. The Senior Field Supervisor will closely monitor field activities and will be present onsite during critical testing and logging that require field decisions. The on-site RPR is responsible for identifying the lithology of the formations being penetrated including key changes in lithologic character, confining beds, producing formations, changes in water quality and aquifer hydraulic potential, monitoring well flowing conditions as artesian units are penetrated, evaluate various testing and logging analyses on the formation integrity and productivity during construction, reporting on daily and weekly progress, and verifying driller activities, and quantities of materials used. Geologic information will be collected and analyzed during the drilling program to identify subsurface conditions and evaluate how existing conditions match those assumed during the design and permitting program.

The total cost for **Task 11** is **\$1,414,250 (Lump Sum)**. See **Table 1B** for the hourly breakdown of this work task.

Task 12. Above-Grade Construction Oversight Services – Onsite daily construction inspections will be provided by others. Inspection reports (including notes, pictures, videos, etc.) will be provided to the Water Science Team during the construction period.

The Water Science Team will perform the following limited services during construction. Construction services coordination will be primarily with/through Weiler Engineering Corporation. Direct communication with the contractor

constructing the above ground project features is not anticipated. Contractor activities such as construction site management, client management, construction payment requests, and other associated administrative activities will be handled by others.

- Review show drawings.
- Review and respond to requests for information (RFI's).
- Provide eight (8) Engineer of Record construction and facility commissioning site visits to observe construction progress
- Prepare certification and regulatory compliance project closeout paperwork.
- Prepare and process record drawings.
- Provide engineering support for the O&M manual.

The total cost for **Task 12** is **\$64,000 (Lump Sum)**. See **Table 1B** for the hourly breakdown of this work task.

Task 12.1. Electrical Engineering Services – The Water Science Team includes an electrical engineering firm, ADS Engineering, Inc. (ADS). ADS will be a direct subconsultant to Carollo. They will be tasked with designing, constructing, and quality assurance testing of all electrical systems including instrumentation and control (I&C) and SCADA.

The total cost for **Task 12.1** is **\$73,500 (Lump Sum)**. See **Table 1B** for the hourly breakdown of this work task.

Task 13. Well Completion Report – Upon completion of well construction, the Water Science Team will prepare a Well Construction Completion Report, which will include detailed analysis and description of hydrogeologic information collected and analyzed during the drilling operations, the lithology of the formations penetrated, well flowing conditions, drill stem water quality, daily driller activities, quantities of materials used, results from various testing efforts on the formation and well integrity and productivity during construction.

The total cost for **Task 13** is **\$67,000 (Lump Sum)**. See **Table 1B** for the hourly breakdown of this work task.

Task 14. Startup/Commissioning – Upon completion of well and above ground construction, the Water Science Team will prepare a request for FDEP approval to start operational testing. A key part of the request is the DRAFT Operations and Maintenance Manual. The equipment specifications, drawings, and maintenance data provided by the manufacturer of each piece of equipment will also be incorporated into the document. The Water Science Team will coordinate with the City's designated plant operators and assist in putting the well into operation and developing effective operating protocols.

Following Operational Testing, the Water Science Team will assist the City staff with start-up and commissioning of the Injection Well systems on an as-needed basis and will be on call and provide trouble-shooting assistance and response to operational or agency enquiries. The scope of this task will be determined in coordination with the City and the selected contractor, but may include review, analysis, and recommendations on operating data and practices.

The total cost for **Task 14** is **\$31,500 (Lump Sum)**. See **Table 1B** for the hourly breakdown of this work task.

Task 15. General Consulting and Support Services – The Water Science Team shall manage the implementation of the various components necessary for orderly administration of the project and to provide continuous improvement in project delivery. Recognizing the dynamic nature of services which are required, as well as the challenging time schedules generally necessary for these assignments, it is the intent of the Water Science Team to make available engineering staff and specialized experts to address issues specific to the City. These personnel may be employees of the Water Science Team, subconsultant employees or subcontracts with individual consultants, as required. This task shall include, but not be limited to, the following as needed services:

- Easement assistance
- Unplanned analysis, evaluations, or studies
- Additional coordination meetings with other Water Science Team
- Property acquisition support
- Funding and grant assistance
- Quality assurance and review
- Review of water quantity withdrawal records
- Assistance in meeting with regulatory agencies and negotiating UIC permit conditions
- Assistance in implementing permit limiting conditions requirements
- Assistance in public information and outreach assistance to the City as part of public consultations, meetings or workshops required for the development of the Project.
- Additional design of transmission mains, during the progress of the project if opportunities arise in which the City wishes to extend the transmission main the Water Science Team will provide services at a time and materials (T&M) cost basis.

The Water Science Team will provide additional services requested by the City on an as-needed basis. The Water Science Team will provide services under this task only upon written authorization by the City. Work tasks may include, but are not limited to

- **Survey and Subsurface Utility Engineering (SUE) Allowance:** By others.
- **Geotechnical Allowance:** By others.
- **Hydraulic Modeling:** Not currently included. It is anticipated that hydraulic modeling may be needed for pipeline design; however, the scope of modeling is currently unknown.

An allowance of **up to \$100,000 (Time and Materials Not to Exceed)** for **Task 15** is allocated to provide services not specifically included in the above scope of services (**Table 1B**). It should be noted that Water Science billing rates change every April 1 with compensation adjustments.

Task 16. Operation and Maintenance Manual – Within one (1) year following the injection well completion, the Water Science Team will prepare an Operations and Maintenance (O&M) Manual for the completed injection well and monitoring well system. The O&M Manual will be a team effort that will require contributions and feedback from City's operational staff, the Engineers of Record for above-ground components and Water Science for below-ground components. The equipment technical specifications, drawings, and operations and maintenance data provided by the manufacturer for each piece of equipment will be incorporated into the document. The O&M Manual will include the following information:

- Purpose of the Manual and instructions on its use
- Brief description of the facility, effluent discharges, and injection wells
- Operator's responsibility and responsibilities of others
- A general diagram of the key system operations component
- Diagram and description of pipelines associated with the injection well system with related appurtenances such as pumps and valves including make, model, size, maximum rates and pressures
- Description of metering and monitoring systems for flow rates and injection well pressures, gage locations, procedures and timing for gage calibrations, and record keeping for monitoring data
- Discussion of all monitoring and sampling requirements in the FDEP's UIC permit, sampling procedures, monitoring schedule and where/how to file the Monthly Operating Report (MOR)
- Schedule and procedure for annual pressure fall-off testing
- Routine inspection schedule and a sample of the record keeping log sheet with a description of how to complete the log sheet
- Discussion of maintenance procedures on pipelines, injection pumps, and well control devices and valves
- Procedures and schedule for system shutdowns during emergencies (such as hurricanes, blow-outs, etc.)

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- Discussion on common operating problems (water leaks, oil leaks, etc.), how to recognize them, how to avoid them and what to do when they occur

The total cost for **Task 16** is **\$46,000 (Lump Sum)**. See **Table 1B** for the hourly breakdown of this work task.

REIMBURSABLE EXPENSES (Housing, Mileage, Per Diem) - Reimbursable costs, such as housing during the construction oversight phase of the project, will be billed to the task in which the expense occurs, in accordance with the terms of the Agreement, associated with execution of the project. We anticipate cost of **\$82,950 (Time and Materials Not To Exceed)**.

The total cost for the construction oversight and management services is \$2,065,950 (Lump Sum + Time and Materials).

The project total cost is \$2,833,200.

We appreciate the opportunity to provide hydrogeologic services on your behalf and look forward to working with you on this project. If acceptable, please sign and return the attached Standard Agreement or provide other authorization to proceed. Should you have any questions or would like additional information, please do not hesitate to contact us via phone or email.

Sincerely,

Mike Alfieri, P.E.
Principal
Water Science Associates, LLC
MichaelA@WSAConsult.com

Kirk Martin, PG
President/Principal
Water Science Associates, LLC
Kirk@WSAConsult.com

Cc: Ryan Trahan, Vice President, Apex Companies, LLC, FILE

Attachments

Table 1 - City of Marathon Deep Injection Well Design, Permitting, and Construction Oversight
Hourly Budget Table 2 - Summary of Project Deliverables

STANDARD BUSINESS TERMS & CONDITIONS

These Standard Business Terms & Conditions are attached to, and made part of, the Proposals and Agreements between Water Science Associates and Client.

Limitation of Liability - Water Science Associates services under this Agreement will be consistent with the Standard of Care for all professional engineering and related services to be performed or furnished by Water Science Associates. These engineering services shall be provided with the care and skill ordinarily provided by members of the Engineering Profession practicing under similar circumstances. Upon notice to Water Science Associates and by mutual Agreement between the parties, Water Science Associates will correct those services not meeting such a standard without additional compensation.

Payments and Collection - Invoicing will be provided on a monthly basis or at completion of the service. Statements are due and payable upon receipt. Client agrees to carefully read all billing statements and promptly notify Water Science Associates, in writing, of any claimed errors or discrepancies, within fifteen (15) days from the date of the statement. If Water Science Associates is not notified by the Client in writing, it is presumed that the owner agrees with the correctness, accuracy, and fairness of the billing statement.

Past due amounts may incur a late fee of 1% and Water Science Associates can, upon giving 7 days written notice to Client, suspend services until payment in full is received. Retainers shall be credited on the final invoice. Water Science Associates is entitled to collect reasonable fees and costs, including collection agency, attorney's fees and interest as required to obtain collection of any fees under the Agreement.

Reimbursable Expenses - Expenses for reproduction services, courier fees, delivery, presentation materials, long distance phone calls, and travel made on behalf of the project, subcontractors, and any other out-of-pocket expenses incurred on the project are reimbursable to Water Science Associates. These expenses will be billed to the Client at cost plus 15%.

Permit and Application Fees - Client shall pay all permit and application fees required for the project.

Termination - This agreement may be terminated by either party upon thirty days' written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party. Irrespective of which party shall affect termination, the Client shall pay Water Science Associates for all services rendered to the date of termination.

Duty to Cooperate - The parties agree to provide reasonable access to information regarding the site or the Work performed and to responsible personnel as may be required to address any claim made regarding the Work performed or this Agreement. The parties further agree to provide copies to each other of any claims, demands or notices from any federal, state or local public agency regarding the Work performed or this Agreement.

Attorney Fees - Should litigation arise related to services under this Agreement, the prevailing party is entitled to recover reasonable costs including staff time, court costs, attorney fees and related expenses.

Mediation - Water Science Associates and Client agree that all disputes or claims between them arising out of or relating to this Agreement made during design, construction, or post-construction of the project shall be submitted to nonbonding mediation unless the parties agree otherwise.

Ownership of Documents - All documents, including electronic media, prepared by Water Science Associates under this Agreement shall remain the property of Water Science Associates. These documents may not be used by Client for any other endeavor without the written consent of Water Science Associates.

Delays - Water Science Associates is not responsible for delays caused by factors beyond Water Science Associates control including but not limited to the production of contract documents; issuance of permits from any government or agency; beginning or completion of construction; or performance of any phase of the work pursuant to this Agreement. Water Science Associates does not guarantee the issuance of any permit.

TABLE 1

City of Marathon Deep Injection Well Design, Permitting and Construction Oversight Budget



A. TABLE 1A. CITY OF MARATHON DEEP INJECTION WELL DESIGN, PERMITTING, AND BID SERVICES

		WATER SCIENCE ASSOCIATES FEE SCHEDULE								Water Science Labor Fees	Subconsultant Professional Cost*	GRAND TOTAL	PROPOSAL GRAND TOTAL
Task No.	Task Description	Principal Scientist / Engineer	Senior Water Resource Lead	PM / Senior Scientist / Engineer	Project Scientist / Engineer	Staff Scientist / RPR	GIS/CADD Technician	Admin Support	Total				
		\$433.69	\$290.79	\$236.52	\$236.52	\$155.08	\$128.80	\$141.97					
1	Project Administration	4	40	388	0	0	0	8	440	\$ 106,272	\$ 25,272	\$ 131,544	\$ 131,500
2	Data Compilation and Basis of Design Development	2	16	32	44	44	2	1	141	\$ 30,718	\$ 4,577	\$ 35,295	\$ 35,250
3	30 Percent Injection Well System Design	2	20	80	160	160	120	24	566	\$ 107,124	\$ 22,896	\$ 129,970	\$ 180,000
4	60 Percent Injection Well System Design	2	20	72	132	132	96	10	464	\$ 89,268	\$ 57,083	\$ 146,290	\$ 146,250
5	90% Injection Well System Design	2	16	36	120	120	80	10	384	\$ 72,750	\$ 39,983	\$ 112,733	\$ 112,750
6	Final Injection Well System Design	0	8	12	0	24	0	0	44	\$ 8,886	\$ 25,097	\$ 33,983	\$ 34,000
7	FDEP Underground Injection Control Permitting	6	36	40	120	120	24	16	362	\$ 74,886	\$ -	\$ 74,886	\$ 75,000
8	UIC Permitting Regulatory Meetings (T&M NTE)	---	---	---	---	---	---	---	0	\$ 10,000	\$ -	\$ 10,000	\$ 10,000
9	General Contractor Bid Services (T&M NTE)	---	---	---	---	---	---	---	0	\$ 35,140	\$ 7,475	\$ 42,615	\$ 42,500
Total		18	156	660	576	600	372	69	2,401	\$ 534,824	\$ 232,331	\$ 767,155	\$ 767,250

*Includes 12.5% subconsultant markup

B. TABLE 1B. CITY OF MARATHON DEEP INJECTION WELL CONSTRUCTION OVERSIGHT AND MANAGEMENT

		WATER SCIENCE ASSOCIATES FEE SCHEDULE								Water Science Labor Fees	Subconsultant Professional Cost*	GRAND TOTAL	PROPOSAL GRAND TOTAL
Task No.	Task Description	Principal Scientist / Engineer	Senior Water Resource Lead	PM / Senior Scientist / Engineer	Project Scientist / Engineer	Staff Scientist / RPR	GIS/CADD Technician	Admin Support	Total				
		\$433.69	\$290.79	\$236.52	\$236.52	\$155.08	\$128.80	\$141.97					
10	Construction Management and Administration (T&M NTE)	---	---	---	---	---	---	---	---	\$ 186,598	\$ -	\$ 186,598	\$ 186,500
11	Below-Grade Construction Oversight Services	10	200	1,200	2,500	3,000	0	80	6,990	\$ 1,414,207	\$ -	\$ 1,414,207	\$ 1,414,250
12	Above-Ground Engineering Services During Construction	0	0	0	0	0	0	0	0	\$ -	\$ 63,848	\$ 63,848	\$ 64,000
12.1	Electrical (ADS Engineering)	0	0	0	0	0	0	0	0	\$ -	\$ 73,631	\$ 73,631	\$ 73,500
13	Completion Report	8	8	40	56	64	16	14	206	\$ 42,475	\$ 24,516	\$ 66,991	\$ 67,000
14	Startup/Commissioning	2	8	8	16	20	0	12	66	\$ 13,675	\$ 17,712	\$ 31,387	\$ 31,500
15	General Consulting and Support Services (T&M NTE)	---	---	---	---	---	---	---	---	\$ 100,000	\$ -	\$ 100,000	\$ 100,000
16	Operation and Maintenance Manual	8	12	28	60	60	24	8	200	\$ 41,304	\$ 4,878	\$ 46,182	\$ 46,250
16	REIMBURSABLE EXPENSES (Housing, Mileage, Per Diem - T&M NTE)	---	---	---	---	---	---	---	---	\$ 82,950	\$ -	\$ 82,950	\$ 82,950
Total		28	228	1,276	2,632	3,144	40	114	7,462	\$ 1,684,112	\$ 184,586	\$ 1,868,698	\$ 2,065,950

*Includes 12.5% subconsultant markup

PROPOSAL TOTAL: \$ 2,833,200

TABLE 2

Summary of Project Deliverables

Table. 2. Summary of Project Deliverables

No.	Deliverable
1	Project Execution Plan
2	Progress Reports and Progress Meeting Notes
3	Draft Preliminary Design Report
4	Final Preliminary Design Report
5	Early Procurement Packages for pre- purchase of material and equipment
6	30 Percent Complete Design Documents
7	60 Percent Complete Design Documents
8	90 Percent Complete Design Documents
9	Final Design Documents
10	Completed Permit Applications and Technical Documentation
11	Conformed Design Drawings and Specifications for Construction
12	Maintenance of Plant Operations (MOPO) Plan
13	Daily Field Reports During Construction
14	Record Drawings
15	Well Completion Report
16	Requests to Start Operational Testing
17	Operation and Maintenance Manual (To be finalized 1 year after operation commences during operation permitting process, not part of this scope)