



EXHIBIT A
CITY OF COOPER CITY
INJECTION WELL MECHANICAL INTEGRITY TESTING AND REPERMITTING
TASK ORDER No. 2024-19
SCOPE OF SERVICES
DRAFT

PROJECT BACKGROUND

Cooper CITY (CITY) operates owns and operates one Class I injection wells for disposal of nanofiltration reject concentrate from the George A. Haughney, P.E., Utilities Complex Water Treatment Plant and secondary treated domestic wastewater from the George A. Haughney, P.E., Utilities Complex Wastewater Treatment Plant under the Florida Department of Environmental Protection (FDEP) Underground Injection Control (UIC) Operation Permit 0153012-008-UO/1X, issued August 4, 2021. The permit expires August 4, 2026.

In 2021, the 14-inch carbon steel injection tubing was replaced with 16-inch Fiberglass Reinforced Plastic (FRP) tubing and cemented to pad level. The injection zone was deepened from 3,400 to 3,902 feet below pad level (bpl). Upon completion of well rehabilitation, a Mechanical Integrity Test (MIT) was performed on June 29, 2021.

In accordance with the requirements of Rule 62-528 of the Florida Administrative Code (FAC) and the FDEP UIC operating permit, demonstration of the mechanical integrity (MI) must be performed at least once every five years. Class I injection wells are required to demonstrate internal MI by verifying that there are no leaks in the injection well casing as specified in Chapter 62-528.300(6)(a)(1), FAC. These wells must also demonstrate external MI by confirming that there is no upward fluid movement through channels adjacent to the injection well bore, as cited in FAC Chapter 62-528.300(6)(a)(2). The date for MI testing is established based on the date of the casing pressure test. The MIT completion date for the injection well June 28, 2026 however, the MIT may be completed any time prior to this date. The MIT plan is required to be submitted a minimum of 90 days prior to this completion date.

A 5-year permit renewal application is required to be submitted 60 days prior to August 4, 2026.

SCOPE OF SERVICES

The CITY has requested Hazen and Sawyer (CONSULTANT) to provide the following FDEP UIC injection well system related professional services:

- 5-year required mechanical integrity testing (MIT) demonstration
- Injection well rerating to increase the maximum permitted flow rate (optional)
- 5-year operation permit renewal application

CONSULTANT will coordinate and conduct a kick-off meeting with the CITY to review the goals and scope of the MIT, rerate and permit renewal application. CONSULTANT will prepare kick-

off meeting agenda and summary to be submitted to the CITY in electronic format. CONSULTANT will prepare the permit renewal application and updates to the Operation and Maintenance manual. A draft MIT Plan will be provided to the CITY for discussion at the kick-off meeting. Following FDEP approval of the MIT Plan, the CONSULTANT will initiate preparation of technical documents for bidding. CONSULTANT will provide oversight of MI testing activities.

Additionally, as an optional task at the request of the CITY, the CONSULTANT will provide professional services for the rerating the FDEP UIC permitted capacity for the injection well. A detailed scope of services for the following tasks are described below:

- Task 1 – MIT Plan
- Task 2 – Technical Specifications for Bid
- Task 3 – Procurement Assistance
- Task 4 – Professional Services During MIT
- Task 5 – MIT Reporting
- Task 6 – Preparation of the Operation Permit Renewal Application
- Task 7 – Update Operation and Maintenance Manual
- Task 8 – Post Renewal Application Services
- Contingency/Rerating Professional Services

TASK 1 – MIT PLAN

CONSULTANT will prepare an MIT plan for FDEP approval, which includes the elements required by the permit, and by reference, FAC 62-528.300(6) for demonstration of MI of a Class I injection well. The plan will include a sequence of work on which the MIT technical specifications and bid documents will be developed. This task includes a draft plan for CITY review and final plan submittal for FDEP UIC review. The plan will be submitted prior to the 90-day regulatory deadline for the required MIT dates.

Up to two (2) requests for additional information (RAI) from the FDEP UIC on the submitted plan will be addressed under this task. The CITY nor CONSULTANT can control the number of RFIs produced by the FDEP.

Deliverables:

- Draft MIT Plan for CITY review
- Final MIT Plan for submittal to FDEP

TASK 2 – TECHNICAL SPECIFICATIONS FOR BID

CONSULTANT will develop technical specifications and bid documents for the MIT and rerate testing services using a CONTRACTOR's supplied pumps (draft and final). CONSULTANT will work with CITY staff to align the technical documents with the CITY's front ends. CITY will provide comments to CONSULTANT for incorporation into the contract documents. CONSULTANT shall identify bid items for the contract documents based on the work described in the technical specifications and drawings. Likewise, CONSULTANT shall add a summary of work paragraph, bidder qualifications and a bid form for insertion into the bidding documents. CITY will provide the front-end documents and final proposal bid form.

Deliverables:

- Draft Technical Specifications
- Final Technical Specifications for Bid

TASK 3 – PROCUREMENT ASSISTANCE

CITY will prepare bidding documents for reproduction and sale, prepare addenda, issue addenda, and communicate with potential bidders. CONSULTANT will assist the CITY throughout the procurement process or piggyback on an as-needed basis. This task does not include services in the event of a bid protest.

Deliverables (may include):

- **Prebid/pre-procurement meeting** – agenda, coordination, participation in pre-bid meeting, and meeting summary
- **Addenda and clarifications** – timely responses to written technical questions from potential bidders relating to documents prepared by CONSULTANT. Nontechnical inquiries shall be provided by CITY.
- **Evaluation and recommendation (technical)** – following receipt of the bids, in parallel with CITY Purchasing review, CONSULTANT shall prepare a bid tabulation for items relevant to bid work described by CONSULTANT and evaluate such responses by the lowest responsive bidder to establish the bidders' ability to perform the contract requirements. CITY will determine non-technical bid responsiveness and contractual responsibility.
- **Award services** – CONSULTANT shall provide a recommendation of award to the CITY.

TASK 4 – PROFESSIONAL SERVICES DURING MIT

CONSULTANT will lead the preconstruction meeting to coordinate testing between plant operation staff and Contractor. CONSULTANT will provide an agenda and a meeting summary to.

CONSULTANT will provide the services of an engineer or geologist to witness and review the results in the field for up to five (5) days for the following tests:

- Video survey
- Internal casing pressure test
- Radioactive tracer survey
- Geophysical logging

CONSULTANT will review Contractor submittals including shop drawings, schedule, material certifications and payment requests and respond to Contractor requests for information.

CONSULTANT will coordinate and communicate, as needed, with FDEP during MIT activities, and coordinate activities with plant staff.

Deliverables:

- CONSULTANT daily reports

TASK 5 – MIT REPORTING

Upon completion of the Work, CONSULTANT will prepare a report with interpretation of the MI test results, as required by 62-528.400, FAC. The report will include a presentation of historical monitoring well monitoring data and injection well operational data.

The report will be signed and sealed by a Professional Geologist or Engineer registered in the state of Florida and submitted to the FDEP UIC Program.

Up to two requests for additional information (RAI) from the FDEP UIC on the submitted MIT report will be addressed under this task.

Deliverables:

- Draft MIT Report for CITY review
- Final signed and sealed MIT Report
- Responses to RAIs

TASK 6 – PREPARATION OF THE OPERATION PERMIT RENEWAL APPLICATION

CONSULTANT will complete the FDEP Form 62-528.900, Application to Construct/Operate/Abandon Class I, III, or V Injection Well Systems to include the following:

- Area of review (AOR) radius and prepare an inventory of wells within the AOR radius of the deep injection well systems.
- Wells will be identified on an AOR map and information (construction details, well use, and permit number) for each well will be summarized on an accompanying table.
- Updated maps and cross-sections showing the local and regional geology and hydrogeology. The cross-sections will depict geological formations and hydrogeologic units, the estimated depth of the Underground Source of Drinking Water (USDW), and the direction of fluid movement within identified USDWs.
- Summary of mechanical integrity documentation of the deep injection well systems.
- Develop tables and graphs of operating and monitoring data for the injection well and both zones of the dual-zone monitoring well. Evaluation of the data will be included.
- Review the existing injection well system monitoring program and recommend changes, if needed for conformance with FDEP protocols.
- Prepare an injection well system plugging and abandonment plan, estimated cost in 2025 US Dollars, and Local Government Guarantee forms.

Following the Draft Permit Renewal Application preparation, CONSULTANT will meet via teleconference with the CITY to discuss the Application. At this time, the CITY will ask questions and provide comments that the CONSULTANT will incorporate into the final draft to be submitted to the FDEP. CONSULTANT will provide the CITY all deliverables required for the FDEP permit application. All deliverables will be drafted, finalized, and submitted to FDEP electronically (PDF format).

The application will be signed and sealed by a Florida registered Professional Geologist and if requested, a registered Engineer of Record. Wet signature pages will be mailed to FDEP separately. The full application will be submitted in a timely manner to FDEP, and assistance will be provided during the application payment process. A timely submittal to FDEP is required by June 5, 2026.

Deliverables:

- Data request email.
- Draft renewal application for CITY review and comment, including supporting information and draft transmittal letter (electronic format).
- Final signed and sealed application package to include a complete application for permit renewal and supporting documents (electronic format).
- Complete FDEP Fact Sheet Submittal Checklist

TASK 7 – UPDATE OPERATION AND MAINTENANCE MANUAL

CONSULTANT will update, as needed for permitting, the injection well section of the existing Operational and Maintenance (O&M) manual and record drawings previously provided to FDEP in accordance with the September 2023 FDEP issued O&M Manual Review Checklist. The update will append the O&M sampling protocol (per FDEP SOP) and monitoring program in accordance with the permit.

Deliverables:

- Updated O&M manual for the injection well system (electronic)

TASK 8 – POST RENEWAL APPLICATION SERVICES

The Consultant will respond to up to two (2) requests for additional information (RAI) from FDEP. A formal response to each comment will be prepared by the Consultant and reviewed by CITY prior to submitting to FDEP. Follow-up coordination meetings with the CITY.

The CONSULTANT will assist the CITY through the completion of the permit renewal process, which includes the following services:

- Up to two (2) responses to RAIs from FDEP. A formal response to each comment will be prepared by the Consultant and reviewed by CITY prior to submitting to FDEP.
- Review the Draft Permit prior to publication and communicating comments to FDEP
- Review the Notice of Intent to Issue and provide comments to FDEP

- Review the Final Permit

Deliverables:

- Final responses to FDEP for up to two (2) RAls (electronic).
- Draft Permit, Notice of Intent and Final Permit review comments.
- Coordination meeting summaries, as needed (electronic).

CONTINGECNY/RERATING TESTING SERVICES

At the request of the CITY, CONSULTANT will provide the following professional services to assist the CITY with the rerating of its Class I injection well IW-1 and the completion of the permit minor modification process, which includes the following services:

- Prepare and submit rerate test plan to FDEP UIC for review and approval.
- Communication with FDEP UIC to review the rerating procedures and regulatory requirements.
- Coordination with the CITY on the source water, flow rate, pumping capacity and data collection for testing.
- Field observation during testing, limited to one day. This task includes coordination with FDEP and the CITY to schedule the witnessed testing.
- Summarizing the results of the rehabilitation and rerate testing in a brief technical memorandum or incorporated with the MIT report, which will be signed, sealed, and submitted to the FDEP UIC following City review.

Rerating the injection well system will either need to follow an upgrade of the City injection well pumping system or testing with temporary, contractor-provided equipment.

Deliverables:

- Draft Rerate Test Plan
- Final Rerate Test Plan for submittal to FDEP
- Draft Rerating Technical Memorandum (Minor Permit Modification Request) for City review
- Final signed and sealed Rerating Technical Memorandum for submittal to FDEP

ASSUMPTIONS

The following assumptions were made in preparation of the level of effort associated with the described scope:

- CITY will electronically provide front end documents applicable to the project.
- CITY will enter into an agreement with a Florida licensed Water Well Contractor to complete the work. No prequalification of Contractors will be performed by

CONSULTANT. Contractor shall be responsible for providing all materials and equipment necessary to complete all work, including all testing equipment.

- CITY will assist in coordinating site access for MI and injection well rerating.
- Contractor change orders and/or field orders during the project are not anticipated and are therefore not included.
- CITY will directly pay the fee to FDEP for the rerating of the permitted capacity of the Class I injection well, in accordance with Rule 62-4.050 (4)(m) 17. The fee is anticipated to be \$250.
- CITY will pay the permit renewal application fee of \$10,000 directly to FDEP through their Business Portal or mailed check.
- CITY will collect and provide to CONSULTANT continuous injection well flow and pressure data, as well as monitoring well pressures, electronically, in one-minute increments before, during and after the rerating test.
- CITY will provide, in Excel format, results from the monitoring wells monthly water quality testing data as submitted to the FDEP on a monthly basis. Five years of data will be required from January 2021 through April 2026.
- CITY will provide a current PDF copy of the Operation and Maintenance (O&M) manual or any updates since April 2003.
- CITY will provide a current copy of the Emergency Discharge Management Plan and contingency plan to cope with well failure or shut-ins, if separate from the O&M.
- CITY will sign and notarize the Certificate of Financial Responsibility documentation.
- A public meeting is not required, provided the CITY is willing to republish the draft permit and schedule a public meeting in the event a meeting is requested during the public comment period. Support for a public meeting will require additional effort outside of this scope of services.
- All deliverables will be electronic.

SCHEDULE

The schedule for the major work tasks is summarized below.

Task	Description	Duration for task/subtask (days)	Calendar Days From Notice To Proceed
	Kick-off Meeting	15	15
1	MIT Plan	15 ¹	15
2	Technical Specifications for Bid	45 ²	80
3	Procurement Assistance	180 ³	260
4	Professional Services During MIT	15	275

5	MIT Reporting	90 ⁴	365
6	Preparation of the Operation Permit Renewal Application	120	135
7	Update Operation and Maintenance Manual	60	135
8	Post Renewal Application Services	270	405
	Contingency/Rerating Testing Services	30 ⁵	TBD

- ¹ Draft MIT Plan will be submitted for CITY review at Kick-off Meeting. Final MIT Plan to be submitted to FDEP 5 days following receipt of CITY comments.
- ² Draft Technical Specifications will be submitted for CITY review following FDEP approval of MIT Plan. Assumes 15 days FDEP review and approval of MIT Plan.
- ³ Assumes 180 days of CITY procurement to Contractor NTP.
- ⁴ Draft Report will be submitted 60 days following MIT testing. In accordance with 62-528.400, FAC, the MIT report must be submitted 90 days following MIT.
- ⁵ Rerate testing at the request of the City. Field services limited to 1 day of testing oversight.

COMPENSATION

Compensation shall be made to CONSULTANT for a total amount of \$131,541 as summarized below.

Task	Description	Compensation Type	Estimated Fee
1	MIT Plan	Lump Sum	\$6,501
2	Technical Specifications for Bid	Lump Sum	\$10,509
3	Procurement Assistance	Time and Materials	\$4,719
4	Professional Services During MIT	Time and Materials	\$15,281
5	MIT Reporting	Lump Sum	\$14,697
6	Preparation of the Operation Permit Renewal Application	Lump Sum	\$44,822
7	Update Operation and Maintenance Manual	Lump Sum	\$18,675
8	Post Renewal Application Services	Lump Sum	\$4,694
Subtotal			\$119,898

Task	Description	Compensation Type	Estimated Fee
	Contingency/Rerating Testing Services		\$11,643
	TOTAL		\$131,541

SUBMITTED BY:
Hazen and Sawyer

APPROVED BY:

CITY of Cooper CITY

BY: _____

Janeen M. Wietgreffe, Vice President

Dated this ____ day of January, 2025

BY: _____

Alex Rey, City Manager

Dated this ____ day of _____, 2025