



**AGENDA REPORT**  
**May 7, 2019**

**Task Order No. 7 CDM Smith: Mechanical Integrity Testing of Sykes Creek Regional Water Reclamation Facility Deep Injection Well System - District 2**

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**SUBJECT:**

Task Order No. 7 CDM Smith: Mechanical Integrity Testing of Sykes Creek Regional Water Reclamation Facility Deep Injection Well System - District 2

**FISCAL IMPACT:**

\$151,240. Funds are available in FY19 budget. Fund 4150-365120-5491020

**DEPT/OFFICE:**

Utility Services

**REQUESTED ACTION:**

It is requested that the Board of County Commissioners approve and authorize the Chairman to execute Task Order No. 7 with CDM Smith for necessary engineering services associated with the FDEP permit required Mechanical Integrity Test (MIT) at the Sykes Creek Regional Water Reclamation Facility.

**SUMMARY EXPLANATION and BACKGROUND:**

Brevard County owns and operates two injection wells at the Sykes Creek Regional Water Reclamation Facility (WRF) on Merritt Island and one at the South Beaches WRF. Injection wells in the State of Florida operate in accordance with permits issued by the Florida Department of Environmental Protection (FDEP) and the State requires that these wells be tested every five (5) years to prove that they are mechanically sound.

The operating permit for the Sykes Creek facility requires that a routine Mechanical Integrity Test be performed by January 2020. The permit also requires that a testing plan be submitted to the Underground Injection Control Technical Advisory Committee 6 months in advance of the test. These tests require highly specialized engineering services, including but not limited to, a video survey, pressure testing, and an isotopic tracer survey to verify the integrity of the injection system. CDM Smith was competitively selected in 2017 as a continuing consultant to provide engineering and consulting services for the County.

The Sykes Creek Regional Water Reclamation facility is located in north Merritt Island, and treats wastewater generated within the Utility Services Department's Merritt Island service area. It produces reclaimed water for the Savannahs Golf Course and nearby

residential areas, and uses the injection well to dispose of excess treated effluent. The injection well was constructed to protect the water quality of the Indian River Lagoon by eliminating surface water discharges from the treatment facility.

Contact: Edward Fontanin, P.E., Utility Services Director, 321-633-2091,  
edward.fontanin@brevardfl.gov

**CLERK TO THE BOARD INSTRUCTIONS:**

Print 3 originals and retain 1 original for Clerk and send 2 originals to Rose Lyons, Utility Services Department.

**ATTACHMENTS:**

**Description**

- ▣ **CDM MIT Sykes Task Order 7**



Tammy Rowe, Clerk to the Board, 400 South Street • P.O. Box 999, Titusville, Florida 32781-0999

Telephone: (321) 637-2001  
Fax: (321) 264-6972  
Tammy.Rowe@brevardclerk.us

May 8, 2019

**M E M O R A N D U M**

**TO:** Edward Fontanin, Utility Services Director

**RE:** Item F.18., Task Order No. 7 with CDM Smith for Mechanical Integrity Test at the Sykes Creek Regional Water Reclamation Facility Deep Injection Well System

The Board of County Commissioners, in regular session on May 7, 2019, approved and executed Task Order No. 7 with CDM Smith for necessary engineering services associated with the Florida Department of Environmental Protection (FDEP) permit required for Mechanical Integrity Test (MIT) at the Sykes Creek Regional Water Reclamation Facility - Deep Injection Well System. Enclosed are two fully-executed Task Orders.

Your continued cooperation is greatly appreciated.

Sincerely yours,

BOARD OF COUNTY COMMISSIONERS  
SCOTT ELLIS, CLERK

*Tammy Rowe*

Tammy Rowe, Deputy Clerk

/ds

Encls. (2)

cc: Finance  
Budget

**TASK ORDER NO. 7**  
**CDM Smith Inc.**  
**Sykes Creek Regional Water Reclamation Facility Deep Injection Well System**

THIS TASK ORDER is made and entered into by and between the Board of County Commissioners of Brevard County, Florida, hereinafter referred to as "County" and, CDM Smith Inc., hereinafter referred to as "Consultant", consistent with the terms of the Master Agreement between the County and Consultant;

WHEREAS, the Master Agreement between the County and Consultant provides that requirements for professional services are to be set forth in tasks orders;

IT IS AGREED as follows:

**Section A. BACKGROUND AND INTENT**

Chapter 62-528.425(1)(d) of the Florida Administrative Code (FAC), requires that the mechanical integrity of an injection well system be demonstrated every five years. Testing must be completed in accordance with Chapter 62-528.300 (6), FAC. Part of the testing process requires a plan describing the mechanical integrity test procedures (MIT Plan) be submitted to the Florida Department of Environmental Protection's (FDEP) Aquifer Protection Program (APP) in the Tallahassee and Central District offices for approval 90 days prior to the required completion dates in UIC Permit No. 0126971-003-UO/1M. The plan must be reviewed and approved prior to the initiation of testing. For the Sykes Creek Regional Water Reclamation Facility (WRF) injection well system, the field test requirements are due by permit for Injection Well Nos. IW-1 and IW-2 on January 6 and 13, 2020, respectively.

The expectation of the County is, and it is acknowledged by the Consultant, that the Consultant will coordinate with the County staff prior to submitting this task order to become familiar with the project requirements in a general way, view the site, and determine the scope of available documentation and resources.

**Section B. PROJECT REPRESENTATIVES**

For Brevard County Utility Services:

Shelley Locklear  
321-633-2093  
[Shelley.Locklear@brevardfl.gov](mailto:Shelley.Locklear@brevardfl.gov)

For Consultant:

Eric Grotke  
407-660-2552  
[GrotkeEJ@cdmsmith.com](mailto:GrotkeEJ@cdmsmith.com)

**Section C. SCOPE OF WORK**

The Consultant will provide assistance to the Brevard County Utility Services Department (County) in the completion of the Mechanical Integrity Test (MIT) requirement for the County's Sykes Creek Regional Water Reclamation Facility injection well system:

#### Task 1 – Preparation of MIT Plan

A MIT plan will be prepared according to the requirements of the UIC rules (Chapter 62-528) as specified in the FAC. The MIT Plan will be submitted to the FDEP APP and District offices to obtain regulatory review and approval. This task includes activities associated with addressing up to one request for information or modifications to the plan required for approval.

#### Task 2 – General Testing Services

- a) The Consultant will develop testing specifications to be used in subcontracting a qualified drilling contractor to provide equipment and labor to conduct MIT field tests. The Consultant will contract with the drilling contractor to perform the required testing. Subcontract administration including contract execution, invoice processing, and project coordination.
- b) Casing Pressure Test - An on-site project representative will be provided to observe casing pressure test preparations and witness the pressure tests for both injection wells to confirm that they are being performed in accordance with the MIT Plan. Also included under this subtask will be coordination with FDEP staff to witness field activities and certification of the test results by a Florida registered Professional Geologist or Engineer, as appropriate. The FDEP's Central District Office must be notified a minimum of 72 hours prior to all testing for mechanical integrity on the injection wells.
- c) Geophysical Logging, Television Survey, and Radioactive Tracer Survey - An on-site project representative will be provided to witness geophysical logging, television surveying, and radioactive tracer surveying (RTS) activities performed at Injection Well Nos. IW-1 and IW-2, and to confirm that the testing is being done in accordance with the MIT Plan. The geophysical logging will consist of background gamma ray, temperature, and television surveys. For the RTS, tracer injection test depths and tracer concentrations and rates will be selected based on the approved MIT Plan and well conditions. Coordination with FDEP field staff is provided for under this subtask. The FDEP's Central District Office must be notified a minimum of 72 hours prior to all testing for mechanical integrity on the injection wells.

#### Task 3 – Evaluation of Data and Preparation of Report

Under this task, the data collected from Task 2.0 will be evaluated to verify the mechanical integrity of the Sykes Creek Injection Well System relative to the UIC regulations. These data will be integrated into a final report for submittal to FDEP APP and the District offices. The final report will include a description of the test procedures, an interpretation of the test results and tabular presentation/graphical evaluation of monitoring well data over the previous 5-year period as required in the permit. A draft report will be prepared and an electronic copy be submitted to the County for review. Upon receipt of review comments, the report will be finalized and submitted to the FDEP APP Tallahassee office for review and approval within three months of the completion date for mechanical integrity testing. An electronic copy of the final report will be submitted. Included under this task will be addressing up to one response to a request for information

#### **Section D. COORDINATION**

The Consultant will coordinate the design with the County Staff members listed below as appropriate.

Function	Name	Email	Phone
Safety	Mike Malavolta	<a href="mailto:Mike.Malavolta@brevardfl.gov">Mike.Malavolta@brevardfl.gov</a>	321-633-2093
Operations Mgr.	Brian Sorensen	<a href="mailto:Brian.Sorensen@brevardfl.gov">Brian.Sorensen@brevardfl.gov</a>	321-633-2093
Area Operations (as appropriate)	Lou Braafladt Robert Edmiston Jay Wolf	<a href="mailto:Louis.Braafladt@brevardfl.gov">Louis.Braafladt@brevardfl.gov</a>	321-455-1338
SCADA	Steve Allen	<a href="mailto:Steve.Allen@brevardfl.gov">Steve.Allen@brevardfl.gov</a>	321-255-4331
Construction	Owen Callard	<a href="mailto:Owen.Callard@brevardfl.gov">Owen.Callard@brevardfl.gov</a>	321-633-2089
Engineering (as needed)	Christi Winn Don Kean Andy Dugan	<a href="mailto:christi.winn@brevardfl.gov">christi.winn@brevardfl.gov</a> <a href="mailto:don.kean@brevardfl.gov">don.kean@brevardfl.gov</a> <a href="mailto:andrew.dugan@brevardfl.gov">andrew.dugan@brevardfl.gov</a>	321-633-2089 321-633-2089 321-633-2089 321-633-2089
Environmental Specialist	Shelley Locklear	<a href="mailto:Shelley.Locklear@brevardfl.gov">Shelley.Locklear@brevardfl.gov</a>	321-633-2093

#### **Section E. COUNTY'S RESPONSIBILITY**

The following shall be provided by the County in order to assist in the completion of the Consultant's tasks:

- Reasonable access to the site.
- Reasonable access to operations, maintenance, and engineering staff.
- Copies of available as-built drawings.
- Copies of available design and construction documents.
- Copies of available operating data, reports and maintenance records.
- Provide existing injection well pressures for testing purposes.
- Aid with regulatory agencies and provide payment for all permit fees, if required.
- Timely reviews of submittals from the Consultant.

#### **Section F. CONSULTANT SERVICES SPECIFICALLY NOT INCLUDED**

- Environmental services related to threatened and endangered species, wetlands, or regulated solid wastes encountered on the site.
- Services related to acquisition of real property, easements, or rights-of way.
- Well rehabilitation activities. In the event these services are necessary, an amendment may be required.

#### **Section G. DELIVERABLES**

The following results shall be delivered by the Consultant:

All deliverables shall be provided only in electronic PDF format unless otherwise noted.

- MIT Plan
- MIT Report

#### **Section H. SCHEDULE**

It is anticipated that the Project will take 5 months to complete, starting within two weeks of receipt of a formal Notice to Proceed (NTP). The estimated schedule by task is shown below. Consultant will prepare an updated detailed schedule within the first two weeks after NTP.

<b>Milestone</b>	<b>Calendar Days to Complete</b>	<b>Sum of Days from NTP</b>
Draft MIT Plan to the County	28	28
Submit Final MIT Plan to FDEP after County comments	14	42
Field Testing of the injection wells shall be completed prior to January 6, 2020 at IW-1 and January 13, 2020 at IW-2	14	56
Submit Draft MIT Report to the County	60	116
Submit Final MIT Report to FDEP after County comments	14	130

NOTE: The County may suspend the Consultant's schedule for real estate acquisition, environmental remediation, coordination with other projects, or unforeseen circumstances causing delay.

#### **Section I. BASIS OF COMPENSATION**

The fee for the scope of work described in Section C, above, shall be on a not to exceed lump sum total of **\$151,240** and shall not exceed the amounts shown in the table below for each specific task. The County shall periodically compensate the Consultant a portion of the task fee based on mutually agreed upon percentages of completion of each task.

<b>Task</b>	<b>Description</b>	<b>Fee</b>
1	Prepare MIT Plan	\$7,740
2	General Testing Services	\$122,180
3	Prepare Final Report	\$21,320
--	Total	\$151,240

**Section J. ACCEPTANCE**

IN WITNESS WHEREOF, this 7 day of MAY, 2019.

Attest

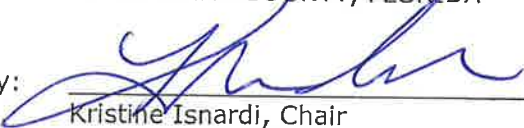
  
\_\_\_\_\_  
Scott Ellis, Clerk

Witness:

  
\_\_\_\_\_  
Michelle Humphries


For: BOARD OF COUNTY COMMISSIONERS  
OF BREVARD COUNTY, FLORIDA

By:

  
\_\_\_\_\_  
Kristine Isnardi, Chair  
As approved by Board 5/7/19

For: CDM Smith Inc.

By:

  
\_\_\_\_\_  
Eric J. Grotke, P.E., BCEE, Vice President



# ATTACHMENT A

## BREVARD COUNTY UTILITY SERVICES DEPARTMENT SYKES CREEK REGIONAL WRF DEEP INJECTION WELL SYSTEM MECHANICAL INTEGRITY TEST ASSISTANCE ESTIMATED LABOR HOURS

Task Description	Officer	Associate	Principal	Senior Professional	Professional II	Professional I	Senior Support Services	Staff Support Services	Project Admin Services	Total
1.0 - Preparation of MIT Plan	2	4	4	6	4	12	0	12	16	60
2.0 - General Testing Services	6	16	0	20	40	40	0	8	16	146
3.0 - Evaluation of Data and Final Report	8	8	12	12	16	60	4	16	32	168
<b>Total</b>	<b>16</b>	<b>28</b>	<b>16</b>	<b>38</b>	<b>60</b>	<b>112</b>	<b>4</b>	<b>36</b>	<b>64</b>	<b>374</b>

**ATTACHMENT B**

**BREVARD COUNTY UTILITY SERVICES DEPARTMENT  
SYKES CREEK REGIONAL WRF DEEP INJECTION WELL SYSTEM  
MECHANICAL INTEGRITY TEST ASSISTANCE  
BUDGET**

**PROJECT:** Brevard County Utility Services Department, Sykes Creek Regional WRF Deep Injection Well System Mechanical Integrity Test Assistance

**PROJECT DESCRIPTION:** Mechanical integrity testing and reporting for deep injection wells.

**CONTRACT REFERENCE:** Agreement between Brevard County and CDM Smith Inc.

<u>Labor Category</u>	<u>Hours</u>	<u>Labor Rate</u>	<u>Total</u>
Officer	16	\$210	
Associate	28	\$200	
Principal	16	\$195	
Senior Professional	38	\$150	
Professional II	60	\$130	
Professional I	112	\$110	
Senior Support Services	4	\$120	
Staff Support Services (Drafting)	36	\$95	
Project Administration (Clerical)	64	\$85	
<b>Total</b>	<b>374</b>		<b>\$47,240</b>

**OTHER DIRECT COSTS**

Copying and Printing  
Computer/CADD  
Travel

**TOTAL OTHER DIRECT COSTS** \$2,500

**OUTSIDE PROFESSIONALS**

Youngquist Brothers, Inc. (Well Testing) \$101,500

**TOTAL ESTIMATED COSTS**

**UPPER LIMIT-NOT TO EXCEED** \$151,240



## Youngquist Brothers, Inc.

Jason Mills, P. G.  
CDM Smith  
101 Southall Ln. Ste. 200  
Maitland, Fl. 32751

March 1, 2019

### Price Proposal for Mechanical Integrity Testing of Brevard County's Sykes Creek Injection Wells 1 & 2

Youngquist Brothers is pleased to quote the following for performance of the five year Mechanical Integrity Testing on the Injection Wells at Brevard Counties Sykes Creek Regional WWTP.

Our price includes the principal elements of the required testing. These include 1) Video Survey, Packer Pressure Test, Background Temperature Log, and Radioactive Tracer Surey (RTS).

Our price includes running a wire brush as a lead component of the packer assembly. This brush should help address areas of scale build-up mentioned in the previous MIT report. This procedure does not insure total cleaning of the casing interior, but should improve the condition of the well.

The sequence of the work quoted is 1) Video Survey, 2) Packer Test, 3) Background Logs & 4) RTS

The price per well is \$47,000.00. The total for 2 wells is \$94,000.00.

If a follow up video is desired after the pressure test, before the RTS, an additional charge of \$7500.00 will apply.

Our price assumes acceptable contract terms, conditions, and schedule.

We hope to be favored with this work and look forward to hearing from you as soon as possible to assure best scheduling.

Sincerely,  


Mike Wilson,  
Project Manager  
Youngquist Brothers  
mwilson@youngquistbrothers.com