

Meeting Date
September 16, 2014



AGENDA	
Section	CONSENT
Item No.	II.A.5

AGENDA REPORT
BREVARD COUNTY BOARD OF COUNTY COMMISSIONERS

SUBJECT:	Task Order No. 2 CDM Smith: Mechanical Integrity Testing of Sykes Creek Injection Well System (\$145,280) - District 2
DEPT/OFFICE:	Utility Services Department

Requested Action:

It is requested that the Board of County Commissioners approve and authorize the Chairman to execute Task Order No. 2 with CDM Smith for necessary engineering services associated with the FDEP permit required Mechanical Integrity Test (MIT) at the Sykes Creek Regional Wastewater Reclamation Facility.

Summary Explanation & Background:

Brevard County owns and operates two injection wells at the Sykes Creek 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 in March of 2015. The permit also requires that a testing plan be submitted to the Underground Injection Control Technical Advisory Committee 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 2012 to provide engineering and consulting services for all of the County's underground injection systems, including the mandatory MITs.

The Sykes Creek 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.

Fiscal Impact: \$145,280. Funds are available in FY15 fund 4150-365140

Contact: Robert G. Adolphe, P.E., Utility Services Director, 321-633-2091, bob.adolphe@brevardcounty.us

Exhibits Attached:

Contract /Agreement (If attached): Reviewed by County Attorney Yes No PR USD FINANCE

County Manager	Assistant County Manager, Mel Scott	Department Director / Extension
Stockton Whitten		Robert G. Adolphe, P.E., Director / x52091



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

Telephone: (321) 637-2001
Fax: (321) 264-6972

September 17, 2014

MEMORANDUM

TO: Robert Adolphe, Utility Service Director

RE: Item II.A.5., Task Order No. 2 with CDM Smith for Mechanical Integrity Testing of Sykes Creek Injection Well System

The Board of County Commissioners, in regular session on September 16, 2014, executed Task Order No. 2 with CDM Smith for necessary engineering services associated with the FDEP permit required Mechanical Integrity Test (MIT) at the Sykes Creek Regional Wastewater Reclamation Facility. Enclosed are two fully-executed copies of the Task Order No. 2 for your action.

Your continued cooperation is always appreciated.

Sincerely,

BOARD OF COUNTY COMMISSIONERS
SCOTT ELLIS, CLERK

Tammy Etheridge, Deputy Clerk

/kg

Encls. (2)

cc: Contracts Administration
Finance
Budget

TASK ORDER NO. 2

**ENGINEERING AGREEMENT, CDM SMITH INC.
BREVARD COUNTY UTILITY SERVICES DEPARTMENT
SYKES CREEK REGIONAL WATER RECLAMATION FACILITY
DEEP INJECTION WELL SYSTEM**

THIS TASK ORDER, made and entered into this _____ day of _____, 2014, 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," is issued under the provisions of the master agreement executed between the COUNTY and CONSULTANT dated September 7, 2012.

WHEREAS, the COUNTY has requested that the CONSULTANT assist with mechanical integrity testing of the deep injection well system at the Sykes Creek Regional Water Reclamation Facility by performing the Scope of Services described in Attachment "A"; and

WHEREAS, the COUNTY and CONSULTANT desire to reduce to writing their understanding and agreement pertaining to such services;

IT IS THEREFORE AGREED AS FOLLOWS:

1. **Scope of Services.** The CONSULTANT shall do, perform, and carry out in a satisfactory and proper manner, assistance with mechanical integrity testing of the deep injection well system, as set forth in the Scope of Services attached hereto and marked as Attachment "A".
2. **Compensation.** In consideration for providing such professional services, the COUNTY shall pay the CONSULTANT a lump sum amount of \$145,280 for the services described in Attachments "B" and "C".
3. **Other Terms and Conditions.** All the terms and conditions of the Master Agreement shall apply to this Task Order as if fully set out herein unless such terms and conditions are specifically superseded by the terms and conditions of the Task Order.

IN WITNESS WHEREOF, the parties hereto have hereunto set their hands and seals the date and year first above written.

ATTEST:



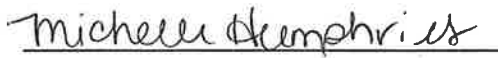
Scott Ellis, Clerk

BOARD OF COUNTY COMMISSIONERS OF
BREVARD COUNTY, FLORIDA

By: 

Mary Bolin Lewis, Chairman

WITNESS:



Michelle Demphries

CDM SMITH INC.

By: 

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

ATTACHMENT B

**BREVARD COUNTY UTILITY SERVICES DEPARTMENT
 SYKES CREEK REGIONAL WATER RECLAMATION FACILITY
 MECHANICAL INTEGRITY TESTING OF INJECTION WELL SYSTEM**

ESTIMATED LABOR HOURS

Task Description	Officer	Associate	Senior Professional	Professional II	Professional I	Senior Support Services	Staff Support Services	Project Admin Services	Total
1.0 – Prepare MIT Plan	2	4	6	4	12	0	12	16	56
2.0 – General Services During Testing	6	16	20	40	40	0	8	16	146
3.0 – Prepare Final Report	8	20	12	16	60	2	16	32	166
Total	16	40	38	60	112	2	36	64	368

ATTACHMENT A

BREVARD COUNTY UTILITY SERVICES DEPARTMENT SYKES CREEK REGIONAL WATER RECLAMATION FACILITY DEEP INJECTION WELL SYSTEM

TASK ORDER NO. 2 MECHANICAL INTEGRITY TEST ASSISTANCE

INTRODUCTION

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 that a mechanical integrity testing plan be submitted to the Underground Injection Control (UIC) Technical Advisory Committee (TAC) 180 days prior to the due date of field testing. 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 wells IW-1 and IW-2 on March 2 and 9, 2015, respectively.

SCOPE OF SERVICES

The scope of services presented in the following sections is designed to assist the Brevard County Utility Services Department (County) in the completion of the Mechanical Integrity Test (MIT) requirement for the County's WWTP.

Task 1.0 – Preparation of Test Plan

A MIT plan will be prepared according to the requirements of the UIC rules (Chapter 62-528) as specified in the FAC. The plan will be submitted to the UIC TAC 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 UIC TAC approval.

Task 2.0 – General Services During Testing

Services to be provided under this task include the performance of the field tests incorporated in the MIT plan and obtaining the services of a testing contractor.

Subtask 2.1 – Specification Development and Testing Services Subcontracting

After receiving MIT plan approval from the TAC, testing specifications will be prepared to be used in subcontracting the services of a well testing company. The Consultant will retain the services of a testing subcontractor for the purposes of providing equipment and labor to perform the actual field testing. Also provided for under this task is subcontract administration including contract execution, invoice processing, and project coordination.

Subtask 2.2 – 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 Florida Department of Environmental Protection (FDEP) staff to witness field activities and certification of the test results by a Florida registered Professional Geologist or Engineer, as appropriate.

Subtask 2.3 – 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 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.

Task 3.0 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 UIC TAC submittal. The final report will include a description of the test procedures and an interpretation of the test results. A draft report will be prepared and five copies will be submitted to the County for review. Upon receipt of review comments, the report will be finalized and submitted to the UIC TAC. Up to ten copies of the final report will be submitted. Included under this task will be addressing up to one response to a request for information.

DATA ASSISTANCE TO BE PROVIDED BY COUNTY

1. Provide copies of existing record drawings of the injection well system not already on file with the Consultant.
2. Provide one copy of the most recent previous MIT report.
3. Field verify existing structures as requested and escort Consultant within project site for field verifications and testing as required.
4. Provide existing and predicted injection well pressures for testing purposes.
5. Provide assistance with regulatory agencies and provide payment for all permit fees, if required.
6. Timely reviews of submittals from the Consultant.

TIME OF COMPLETION

Task 1.0 – The submittal of the draft MIT plan described in Task 1.0 to the County for review shall be completed within four weeks from notice to proceed. The Consultant shall incorporate the review comments and submit the MIT plan to the UIC TAC within two weeks of the receipt of review comments from the County.

Task 2.0 – The Consultant will schedule with the County the mechanical integrity testing of the well within two weeks of the receipt of MIT plan approval from the UIC TAC. Field testing of the system shall be completed prior to March 2, 2015 at IW-1 and March 9, 2015 at IW-2.

Task 3.0 – Within 60 days of the completion of the RTS, the Consultant shall submit to the County for review a draft of the MIT report. The Consultant shall incorporate the County’s review comments and submit the MIT report to the UIC TAC within two weeks of the receipt of review comments from the County.

PAYMENT AND COMPENSATION

CDM Smith proposes to perform the activities associated with this project on a lump sum basis. The total lump sum fee for the above tasks is \$145,280 (as described in Attachments B and C). Invoicing of services will be on a percentage of completion on a monthly basis. The fee for the services of a testing contractor is included in this proposal. For invoice purposes only, the value of each task is as shown on **Table 1**.

Table 1 Task Value for Invoice Purpose Only

Task	Description	Value
Task 1.0	Preparation of Test Plan	\$6,560
Task 2.0	General Services During Testing	\$117,880
Task 3.0	Evaluation of Data and Preparation of Report	\$20,840
TOTAL PROJECT (Lump Sum)		\$145,280

ATTACHMENT C

**BREVARD COUNTY UTILITY SERVICES DEPARTMENT
SYKES CREEK REGIONAL WATER RECLAMATION FACILITY
MECHANICAL INTEGRITY TESTING OF INJECTION WELL SYSTEM**

BUDGET

PROJECT: Brevard County Utility Services Department, Sykes Creek WWTP
Mechanical Integrity Testing Services

PROJECT DESCRIPTION: Mechanical Integrity Testing of IW-1 & IW-2

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

<u>Labor Category</u>	<u>Hours</u>	
Officer	16	
Associate	40	
Senior Professional	38	
Professional II	60	
Professional I	112	
Senior Support Services	2	
Staff Support Services (Drafting)	36	
Project Administration (Clerical)	64	
Total	368	\$46,280
OTHER DIRECT COSTS		
Copying and Printing		
Computer/CADD		
Postage and Shipping		
Travel		
Telephone		
TOTAL OTHER DIRECT COSTS		\$1,000
OUTSIDE PROFESSIONALS		
Youngquist Brothers, Inc.	(Well Testing)	\$98,000
TOTAL ESTIMATED COSTS		\$145,280
LUMP SUM COST - USE		<u>\$145,280</u>

TASK ORDER NO. 2

**ENGINEERING AGREEMENT, CDM SMITH INC.
BREVARD COUNTY UTILITY SERVICES DEPARTMENT
SYKES CREEK REGIONAL WATER RECLAMATION FACILITY
DEEP INJECTION WELL SYSTEM**

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ATTEST:



Scott Ellis, Clerk

BOARD OF COUNTY COMMISSIONERS OF
BREVARD COUNTY, FLORIDA

By: 

Mary Bolin Lewis, Chairman

WITNESS:



Michelle Humphries

CDM SMITH INC.

By: 

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

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**BREVARD COUNTY UTILITY SERVICES DEPARTMENT
 SYKES CREEK REGIONAL WATER RECLAMATION FACILITY
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Total	16	40	38	60	112	2	36	64	368

ATTACHMENT C

**BREVARD COUNTY UTILITY SERVICES DEPARTMENT
SYKES CREEK REGIONAL WATER RECLAMATION FACILITY
MECHANICAL INTEGRITY TESTING OF INJECTION WELL SYSTEM**

BUDGET

PROJECT: Brevard County Utility Services Department, Sykes Creek WWTP
Mechanical Integrity Testing Services

PROJECT DESCRIPTION: Mechanical Integrity Testing of IW-1 & IW-2

CONTRACT REFERENCE: Agreement between Brevard County and
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<u>Labor Category</u>	<u>Hours</u>	
Officer	16	
Associate	40	
Senior Professional	38	
Professional II	60	
Professional I	112	
Senior Support Services	2	
Staff Support Services (Drafting)	36	
Project Administration (Clerical)	64	
Total	368	\$46,280

OTHER DIRECT COSTS

Copying and Printing
Computer/CADD
Postage and Shipping
Travel
Telephone

TOTAL OTHER DIRECT COSTS \$1,000

OUTSIDE PROFESSIONALS

Youngquist Brothers, Inc. (Well Testing) \$98,000

TOTAL ESTIMATED COSTS \$145,280

LUMP SUM COST - USE \$145,280