



1701 Highway A-1-A, Suite 301  
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February 19, 2020

VIA EMAIL

Mr. Himanshu H. Mehta, P.E.  
Managing Director  
Indian River County  
Solid Waste Disposal District  
1325 74<sup>th</sup> Avenue SW  
Vero Beach, Florida 32968

Subject: Indian River County Solid Waste Disposal District  
2019 Annual Permit Compliance and Monitoring (WO No. 3)  
Final Invoice

Dear Mr. Mehta:

Transmitted herewith is a project completion report for the above referenced project. This work was completed in accordance with the Continuing Contract Agreement for Professional Services between Indian River County (IRC) Solid Waste Disposal District (SWDD) and CDM Smith Inc. (CDM Smith), dated April 17, 2018 under Work Order No. CCNA2018-WO No. 3 dated January 15, 2019. This project completion report is to serve as additional information to the final invoice (Invoice No. 90093394).

IRC SWDD is required to perform environmental compliance monitoring and reporting for water and air quality in accordance with the IRC Landfill's operating permits. During calendar year 2019, IRC SWDD was required to submit semi-annual reports of groundwater and surface water quality at the IRC Landfill to the Florida Department of Environmental Protection (FDEP). This was done in accordance with Chapter 62-701.510, Florida Administrative Code (F.A.C.) and the Water Quality Monitoring Plan (WQMP) included as Appendix 3 of Permit Nos. 0128769-022-SC and 0128769-023-SO for the Class I landfill and the WQMP included as Appendix 3 of Permit No. 0128769-025-SO-24 dated July 13, 2017 for the C&D debris disposal facility.

Results of routine semi-annual monitoring of groundwater quality at the C&D debris disposal facility in January 2017 indicated that confirmed concentrations of benzene and sodium exceeded the Primary Drinking Water Standard Maximum Contaminant Levels (MCLs) in samples collected from monitor well MW-21S. MW-21S is one of the 10 detection monitor wells that comprise the monitoring network for the C&D debris disposal facility. In accordance with FDEP rules and the permit for the facility, the IRC SWDD reported the exceedances of the MCLs to the FDEP in March



2017. In a letter dated June 22, 2017, FDEP requested that the IRC SWDD initiate evaluation monitoring in accordance with the requirements of Chapter 62-701.510(6), F.A.C. In July 2017, IRC SWDD installed one monitor well (MW-49S) and performed two quarterly sampling events (July 2017 and October 2017). Quarterly sampling continued to be performed in 2019.

During performance of this Work Order, the IRC Landfill was operating under a Title V Air Operation Permit (Permit No. 0610015-005-AV), which was issued on June 1, 2017, that contains monitoring and reporting requirements related to the landfill gas collection and control system. IRC SWDD is required to prepare and submit the following to FDEP and the U.S. Environmental Protection Agency (USEPA), Region 4:

- Annual Statement of Compliance
- Annual Operating Report
- Annual Emissions Fee
- Semi-Annual Monitoring Report
- Annual Landfill Gas Sulfur Content Test

IRC SWDD is also required to perform miscellaneous sampling and monitoring activities in compliance with the solid waste operation permits and the Multi-Sector Generic Permit (MSGP) for stormwater discharge (FLR05G035-003).

This project included providing the required permit compliance and monitoring services under the following tasks:

- Task 1.0 - Project Quality Management
- Task 2.0 - Semi-Annual Water Quality Sampling and Reporting
- Task 3.0 - Title V Permit Compliance and Reporting
- Task 4.0 – Evaluation Monitoring for the C&D Debris Disposal Facility
- Task 5.0 - General Technical and Miscellaneous Permit Compliance Assistance

## **TASK 1.0 – PROJECT QUALITY MANAGEMENT**

Activities performed under this task consisted of those generally administrative functions required to assure that the project remained on schedule, within budget, and that the quality of the work products defined within this scope was consistent with CDM Smith’s standards and IRC SWDD’s expectations.

CDM Smith coordinated with IRC SWDD staff for project planning. Preparation of invoices and project administration was also performed under this task.

## **TASK 2.0 – SEMI-ANNUAL WATER QUALITY SAMPLING AND REPORTING**

Under this task, CDM Smith assisted IRC SWDD with the semi-annual water quality sampling, monitoring, and reporting in accordance with Chapter 62-701.510, F.A.C. CDM Smith contracted with Ideal Tech Service, Inc. (ITS) to perform the groundwater and surface water sampling. The samples were analyzed by Environmental Conservation Laboratories, Inc. (ENCO) under contract to IRC SWDD.

Semi-annual sampling of the Class I and C&D debris disposal facility groundwater monitor wells was performed in January and July of 2019. The samples collected from the Class I monitoring wells during these events were analyzed for the routine monitoring parameters listed in Paragraph 7 of the WQMP and Chapter 62-701.510(7)(a), F.A.C. The samples collected from the C&D debris disposal facility monitoring wells, except for MW-21, were analyzed for the routine monitoring parameters listed in Paragraph 8 of the WQMP and Chapter 62-701.730(8)(c), F.A.C. In total, 39 wells (29 Class I and 10 C&D) were sampled in January and 26 wells (16 Class I and 10 C&D) were sampled in July. Samples from one surface water site were collected in January and July, if water was discharging from the stormwater pond. The samples, if collected, were analyzed for the parameters listed in Paragraph 13 of the WQMP and Chapter 62-701.510(7)(b), F.A.C.

The January 2019 semi-annual sampling event was conducted from January 28 to 30, 2019. For this event, groundwater samples were collected from the 12 intermediate-depth groundwater wells, 12 shallow groundwater wells, and one deep monitor well at the Class I landfill and 10 groundwater monitor wells at the C&D debris disposal facility. Water levels were measured in 55 monitor wells. A surface water level measurement was taken at Staff Gauge No. 12.

The July 2019 event was conducted from July 15 to 17, 2019. For this event, groundwater samples were collected from the 12 shallow groundwater wells, one intermediate-depth well, and one deep monitor well at the Class I landfill and 10 groundwater monitor wells at the C&D debris disposal facility. A surface water sample was collected from the designated surface water sampling location.

Water levels were measured in 55 monitor wells. A surface water level measurement was taken at Staff Gauge No. 12.

CDM Smith assisted IRC SWDD in coordinating the analytical testing activities with ENCO, notified the FDEP prior to sampling, reviewed and evaluated the analytical test results, and prepared the semi-annual reports. The January 2019 Water Quality Monitoring Report was submitted to the FDEP on April 17, 2019 and the July 2019 Water Quality Monitoring Report was submitted to the FDEP on October 8, 2019.

### **TASK 3.0 – TITLE V PERMIT COMPLIANCE AND REPORTING**

The Title V Air Operation Permit (Permit No. 0610015-005-AV) for the IRC Landfill contains monitoring and reporting requirements related to the landfill gas collection and control system. In accordance with the Title V permit, CDM Smith assisted IRC SWDD, as described below, in fulfilling all air permit requirements and conditions within the required regulatory timeframes.

#### Statement of Compliance

CDM Smith prepared and submitted the Statement of Compliance for the reporting period of January through December of 2018 for the IRC Landfill to the FDEP on February 26, 2019 in accordance with Chapter 62-213.440(3)(a)(2), F.A.C.

#### Electronic Annual Operating Report (EAOR)

CDM Smith prepared and submitted the 2018 reporting year EAOR for the IRC Landfill to the FDEP on March 29, 2019.

#### Semi-Annual Monitoring Report

CDM Smith prepared and submitted two semi-annual monitoring reports to demonstrate compliance with the federal requirements. The report covering July-December 2018 was submitted to FDEP on February 26, 2019. The report covering January-June 2019 was submitted to FDEP on August 28, 2019.

#### Annual Emissions Fee

CDM Smith prepared and submitted the 2018 reporting year Title V fee to the FDEP on March 29, 2019.

#### Annual Landfill Gas Sulfur Content Test

CDM Smith sampled the landfill gas and then sent the samples to a certified air testing laboratory to determine sulfur content in accordance with Method ASTM D5504-12. CDM Smith calculated the sulfur dioxide emissions using the laboratory results and reported it to FDEP in a letter report. The calendar year 2019 report was submitted to FDEP on January 24, 2020.

#### **TASK 4.0 – EVALUATION MONITORING FOR THE C&D DEBRIS DISPOSAL FACILITY**

CDM Smith assisted the IRC SWDD with the quarterly sampling events for Calendar Year 2019 (January 2019, April 2019, and July 2019) for MW-49S and MW-21S. CDM Smith subcontracted with ITS to perform the sampling. The samples collected in January, April and July were analyzed for the parameters listed in Chapter 62-701.510(7)(a), F.A.C. The January 2019 and July 2019 events were performed concurrently with the routine groundwater monitoring scheduled for late January and July 2019. The samples were analyzed by ENCO under contract with IRC SWDD.

The January 2019 sampling event was completed on January 28, 2019. CDM Smith prepared and submitted an Evaluation Monitoring letter report to FDEP on April 5, 2019.

The April 2019 sampling event was completed on April 24, 2019. CDM Smith prepared and submitted an Evaluation Monitoring letter report to FDEP on May 17, 2019.

The July 2019 sampling event was completed on July 16, 2019. CDM Smith prepared and submitted an Evaluation Monitoring letter report to FDEP on August 15, 2019.

Under WO 2, CDM Smith implemented the Contamination Evaluation Plan (CEP) for the C&D Debris Disposal Facility. The results of the CEP implementation were provided to FDEP in the Contamination Evaluation Report (CER) on May 31, 2019. After submittal of the report, CDM Smith provided additional coordination assistance with FDEP under this WO 3. FDEP provided comments on the CER on June 26, 2019. CDM Smith met with IRC on July 1, 2019 to discuss FDEP's comments and determine the best option for IRC. CDM Smith facilitated a call with FDEP and IRC on July 23, 2019. FDEP agreed to CDM Smith's recommendation to proceed with quarterly assessment monitoring. CDM Smith prepared and submitted a letter response to FDEP's CER comments on August 2, 2019. Additional comments were received from FDEP on August 22, 2019. CDM Smith prepared and submitted a letter response to FDEP on September 18, 2019 clarifying the assessment monitoring and requesting to begin in January 2020 with the routine monitoring. On October 14, 2019, FDEP approved the quarterly assessment monitoring program and noted that it would replace the evaluation monitoring moving forward.



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## **TASK 5.0 – GENERAL TECHNICAL AND MISCELLANEOUS PERMIT COMPLIANCE ASSISTANCE**

CDM Smith provided general technical and permit compliance assistance to IRC SWDD staff on an as needed basis including assistance with preparing agenda items, IRC budgetary information, and miscellaneous technical support.

Under this task, CDM Smith performed quarterly monitoring of the landfill gas migration monitoring wells located at the IRC Landfill site boundary, as well as enclosed structures located on site, and submitted reports of the results to the FDEP. The reports were submitted to the FDEP on March 18, 2019, June 14, 2019, September 12, 2019, and November 26, 2019.

CDM Smith provided assistance with responding to FDEP's questions from their facility inspection on November 18, 2019.

CDM Smith contracted with JAEE Environmental Services, Inc. to install one new piezometer for Segment 3 Cell 2 as required by Permit Modification Nos. 0128769-026-SC-IM/0128769-027-SO-MM issued April 2, 2018. The piezometer, PZ-1, was installed on February 12, 2020. CDM Smith staff obtained the required initial field parameters (depth to water, pH, temperature, conductivity, dissolved oxygen, turbidity, color, and odor) after installation. CDM Smith contracted with Masteller, Moler, and Taylor, Inc. to survey the new piezometer location and elevations. The well completion report was submitted to FDEP on February 14, 2020.

CDM Smith appreciates the opportunity to provide these services to the IRC SWDD. If you have any questions or require additional information on the above project, please contact me.

Sincerely,

Amy M. Hightower, P.E., BCEE, PMP  
Project Manager  
CDM Smith Inc.

AMH/jj

File: PW\_PL1\_6706-234990.02.01

cc: Kevin Vann, CDM Smith





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*Please Remit To:*  
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 PO Box 100902  
 Atlanta GA 30384-0902

## INVOICE

INDIAN RIVER COUNTY FLORIDA  
 HIMANSHU H. MEHTA  
 1325 74th AVENUE S.W.  
 VERO BEACH FL 32968

Account Number: 000200418081  
 Wire Routing: 011000138  
 Invoice Number: 90093394  
 Invoice Date: 02/18/2020  
 Project Number: 234990

**Amount Due: \$2,400.00**

**PLEASE INCLUDE INVOICE NUMBER ON ALL CORRESPONDENCE**

SERVICES FROM January 19, 2020 TO February 15, 2020

In accordance with the Continuing Contract Agreement for Professional Services, dated April 17, 2018 and CNNA2018 Work Order No. 3, dated January 15, 2019, between Indian River County and CDM Smith Inc., we are rendering the following invoice for Professional Engineering Services as described below:

Task	Task Amount	% Complete	Total Invoiced	Previously Invoiced	Amount Due This Period
PERM COMP MONT&RPT19	\$25,190.00	100.00%	\$25,190.00	\$25,190.00	\$0.00
SEMI-ANNUAL WQS RPT	\$46,700.00	100.00%	\$46,700.00	\$46,700.00	\$0.00
TITLE V PERMIT	\$26,380.00	100.00%	\$26,380.00	\$26,380.00	\$0.00
EVALUATION MONITOR	\$28,510.00	100.00%	\$28,510.00	\$28,510.00	\$0.00
GEN TECH & MISC COMP	\$24,000.00	100.00%	\$24,000.00	\$21,600.00	\$2,400.00
<b>Total</b>	<b>\$150,780.00</b>		<b>\$150,780.00</b>	<b>\$148,380.00</b>	
<b>AMOUNT DUE THIS PERIOD</b>					<b>\$2,400.00</b>