

**Indian River County, Florida
Solid Waste Disposal District
Board Memorandum**

Date: May 11, 2020

To: Jason E. Brown, County Administrator

From: Vincent Burke, PE, Director of Utility Services

Prepared By: Himanshu H. Mehta, PE, Managing Director, Solid Waste Disposal District (SWDD)

Subject: Indian River County Landfill Gas Expansion – Work Order No. 2 to CDM Smith, Inc.

Descriptions and Conditions:

On June 6, 2017, the Solid Waste Disposal District (SWDD) Board authorized negotiations with the top ranked firm, CDM Smith, Inc. (CDM Smith), in accordance with Florida Statutes (FS) 287.055, Consultant's Competitive Negotiation Act, per the Request for Qualification #2017048 for Engineering Consulting Services for Landfill Closure, Landfill Gas System Expansion, and Cell Construction. The Board approved the contract agreement with CDM Smith on July 18, 2017.

Staff requested a proposal from CDM Smith to provide professional engineering services for the proposed expansion of the landfill gas collection system (Project). The existing Segment 3, Cell 1 is nearing full capacity based on the practical approach to filling the cell from the top. There is additional capacity in the cell that will be filled during the filling of the new Segment 3, Cell 2. However, there are no gas wells in Segment 3, Cell 1 and no specific plans for the installation of gas wells in Segment 3, Cell 2 as it begins to fill.

This project will be completed in multiple phases. Phase I includes final design, drawings, specifications and Opinion of Probable Construction Cost as well as permitting/regulatory agency support and bidding assistance. Phase II will include engineering services during construction.

This agenda item requests authorization to CDM Smith to initiate Phase 1 of the Project under Work Order No. 2.

Analysis:

CDM Smith has prepared Indian River County (IRC) Landfill Work Order No. 2, provided in Attachment 1, for engineering services detailing the scope of work, budget, and schedule for the project. The fees to be paid by SWDD for the execution of this work authorization are in accordance with the engineer's continuing consulting services master agreement. The table below shows the expected completion date and their estimated fees.

SWDD Item

TASK	DESCRIPTION	AMOUNT
Phase 1	Task 1 – Project Quality Management	\$26,990
	Task 2 – Meetings and Data Collection	\$13,935
	Task 3 – Final Design, Drawings, Specifications, and Opinion of Probable Construction Cost Estimate	\$96,180
	Task 4 – Permitting Assistance	\$24,375
	Task 5 – Bidding Assistance	\$18,330
	Total Work Order (Lump Sum Amount)	\$179,810
	Task 6 – Additional Engineering Services (Not To Exceed)	\$20,000
		\$199,810

The costs above are consistent with what SWDD has paid historically for these services.

Please note, the current proposed Phase 1 and the future Phase 2 work for the expansion of the landfill gas system does not include any optimization analysis or infrastructure upgrades of our blower system or the automation of the control panel system. This additional work will need to be evaluated and performed in order to maximize the reliability of the quantity and quality of gas that is provided to IRED.

Since the Indian River County Landfill has a voluntary gas collection system, the installation of landfill gas wells have generally occurred during the closure of landfill gas cells. Our primary reason for gas collection is to minimize odors, reduce the potential for fires and protect the environment by capturing and flaring the gas as carbon dioxide rather than pure methane, which is 22 times more harmful as a greenhouse gas.

Per guidance from CDM Smith in April 2018, the landfill gas expansion into Segment 3 Cell 1 and Segment 3 Cell 2 was contemplated as part of the closure work for these areas along with the construction of Segment 3 Cell 4 several years in the future. However, once SWDD entered into a Landfill Gas Agreement with the Indian River Eco-District, LLC in July 2019, it became more prudent to expedite just the gas portion of the work as to maximize the flow and quality for the development of a potential landfill gas to electricity or a landfill gas to Renewable Natural Gas (RNG) project.

Funding:

Funding for this work is budgeted and available in the Engineering Services account number (41121734-033130), which is funded from SWDD assessments and user fees.

DESCRIPTION	ACCOUNT NO.	AMOUNT
Engineering Services	41121734-033130	\$199,810

Staff has recommended a landfill gas expansion capital improvement project of \$2.5 million in the upcoming Fiscal Year (FY) 20/21 budget. If approved, the expense for these engineering costs will be moved to the project expense.

Recommendation:

Solid Waste Disposal District staff recommends that its Board approve the following:

SWDD Item

- a) Approve Indian River County Landfill Work Order No. 2 with CDM Smith Inc. in the amount of \$199,810 to provide engineering services related to Phase 1 of the Class I Landfill Segment 3 Cell 1 expansion of the landfill gas collection system.
- b) Authorize the Chairman to execute the same, as presented.

Attachment:

- 1) IRC Landfill Work Order No. 2