

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

Date: October 5, 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

Subject: CCNA-2018 Work Order No. 8 to Geosyntec for Engineering Services with 2020 Groundwater Technical Support Services

Descriptions and Conditions:

On December 10, 2019, the Solid Waste Disposal District (SWDD) Board approved CCNA-2018 Work Order No. 6 to Geosyntec Consultants (Geosyntec) for \$176,511.29 to provide engineering services related to the 2020 SWDD Annual Permit Compliance Monitoring and Reporting.

On May 6, 2020, the Florida Department of Environmental Protection (FDEP) provided comments regarding the results of the January 2020 Semi-Annual Water Quality Monitoring Report for the Class 1 landfill. Based on the correspondence provided by Geosyntec on May 28, 2020, the FDEP provided notification to SWDD to initiate evaluation monitoring of four (4) monitoring wells with detected exceedances above applicable groundwater cleanup target levels (GCTLs) for pH, ammonia, chloride, sodium, TDS and arsenic. The FDEP approved this request in a letter dated August 14, 2020, and the 90-day evaluation-monitoring period was initiated on September 17, 2020.

The FDEP has also requested a supplemental groundwater assessment to evaluate the groundwater conditions between the Construction and Demolition (C&D) debris landfill and the Residual Dewatering Facility (RDF) and the Lateral C Canal to the east. Specifically, groundwater with elevated conductivity and nutrients needs to be characterized in order to assess potential remedial alternatives.

Per staff request, Geosyntec has provided the attached CCNA-2018 Work Order No. 8 for additional technical services to respond to the FDEP's request.

Analysis:

Geosyntec has prepared CCNA-2018 Work Order No. 8, provided in Attachment 1, for engineering services detailing the scope of work, budget, and schedule for each of the phases. 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 phases are listed below along with their estimated fees.

<i>PHASE</i>	<i>DESCRIPTION</i>	<i>AMOUNT</i>
Phase 1	Project Management / Meetings	\$ 24,705.40
Phase 2	Database Preparation	\$ 14,759.90
Phase 3	C&D Facility Supplemental Groundwater Assessment	\$ 58,794.40
Phase 4	Class 1 Landfill Evaluation Monitoring	\$ 36,713.00
TOTAL (Lump Sum) =		\$134,972.70

Besides the routine landfill compliance monitoring and reporting that SWDD performs on an annual basis, it is becoming evident that the FDEP is requesting more and more in order to show regulatory compliance of our facility. Although our C&D landfill was originally permitted as an unlined facility in 1994, the FDEP now requires all new C&D landfills to be lined to reduce and minimize groundwater impacts. Nevertheless, SWDD is committed to evaluating and remediating such impacts in full cooperation with the FDEP.

The work outlined in this work order by Geosyntec will assist in establishing a robust historical database going back to 1978 when the Class 1 Landfill originally started. Historical trends and establishing background groundwater quality is essential in evaluating the path forward. In addition, Geosyntec is evaluating alternative remedial technologies that are passive in nature, effective and overall least costly. They have proposed to evaluate their patented *TreeWell* phytoremediation technology, which is a plant-based remediation technology.

Funding:

Funding for the compliance monitoring and reporting is budgeted and available in the Engineering Services account in the SWDD Landfill Fund, which is funded from SWDD assessments and user fees. The account has a total budget of \$415,000 for the 2020/2021 fiscal year.

Description	Account Number	Amount
Engineering Services	41121734-033130	\$134,972.70

Recommendation:

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

- a) Approve CCNA-2018 Work Order No. 8 with Geosyntec for \$134,972.70 to provide engineering services related to Groundwater Technical Support Services.
- b) Authorize the Chairman to execute the same, as presented.

Attachment(s):

CCNA-2018 Work Order No. 8 – Geosyntec