

WORK ORDER NUMBER 5
South Gifford Road Landfill

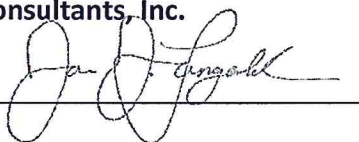
This Work Order Number 5 is entered into as of this ____ day of ____, 2017, pursuant to that certain Continuing Contract Agreement for Professional Services, dated November 15, 2011, and that certain Extension and Amendment of Continuing Contract Agreement for Professional Services entered into as of this 4th day of November, 2014 (collectively referred to as the "Agreement"), by and between INDIAN RIVER COUNTY, a political subdivision of the State of Florida ("COUNTY") and Geosyntec Consultants, Inc. ("Consultant").

The COUNTY has selected the Consultant to perform the professional services set forth on Exhibit 1 (Scope of Work), attached to this Work Order and made part hereof by this reference. The professional services will be performed by the Consultant for the fee schedule set forth in Exhibit 1 (Fee Schedule), attached to this Work Order and made a part hereof by this reference. The Consultant will perform the professional services within the timeframe more particularly set forth in Exhibit 1 (Time Schedule), attached to this Work Order and made a part hereof by this reference all in accordance with the terms and provisions set forth in the Agreement. Pursuant to paragraph 1.4 of the Agreement, nothing contained in any Work Order shall conflict with the terms of the Agreement and the terms of the Agreement shall be deemed to be incorporated in each individual Work Order as if fully set forth herein.

IN WITNESS WHEREOF, the parties hereto have executed this Work Order as of the date first written above.

CONSULTANT
Geosyntec Consultants, Inc.

By:



Title:

Sr. Principal

BOARD OF COUNTY COMMISIONERS
OF INDIAN RIVER COUNTY

By: _____

, Chairman

BCC Approved Date: _____

Attest: Jeffrey R. Smith, Clerk of Court and Comptroller

By: _____

Deputy Clerk

Approved: _____

Approved as to form and legal sufficiency: _____

Dylan T. Reingold, County Attorney

EXHIBIT 1

PROFESSIONAL SERVICES

5 May 2017

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

**Subject: Proposal to Provide One Year of Groundwater Monitoring/Reporting and Related Consulting Services
Former South Gifford Road Landfill
Vero Beach, Indian River County, Florida**

Dear Mr. Mehta:

Geosyntec Consultants (Geosyntec) is pleased to submit this letter proposal to the Indian River County (IRC) Solid Waste Disposal District (SWDD) to provide professional services for Florida Department of Environmental Protection (FDEP)-required activities associated with continued implementation of the groundwater monitoring for the chlorinated volatile organic compound (CVOC) plume at the Former South Gifford Road Landfill located in Vero Beach, Indian River County, Florida (Site). This fee proposal is based on correspondence with the FDEP and discussions with IRC. As requested by IRC, this fee proposal includes budget to complete two semi-annual monitoring and reporting events for the plume monitoring well network, as well as related consulting services to prepare an annual pollution liabilities evaluation report for identified IRC-owned environmental liabilities and represent IRC during interactions with regulatory agencies. Geosyntec has prepared this proposal (professional services as Exhibit 1) as Work Order No. CCNA-2014 WO No. 5 for the Continuing Contract Agreement for Professional Services between IRC SWDD and Geosyntec. The remainder of this letter provides an overview of the project background, a description of the proposed scope of work, a budget estimate, and a discussion of the schedule for accomplishment of the work described herein.

PROJECT BACKGROUND

As part of the long-term monitoring activities for the identified CVOC plume associated with the South Gifford Road Landfill, a network of monitoring wells will require sampling on an annual or semi-annual basis to: (i) confirm that the CVOC plume is not migrating by monitoring the lateral and vertical extent; (ii) evaluate the impact of source and dissolved plume bioremediation to assess CVOC plume centerline concentrations over time; and (iii) assess the impact of biological and physical natural attenuation processes on CVOC plume degradation.

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In consideration of the ongoing natural attenuation processes occurring at the site, the enhancement of these biological processes via the injection of an electron donor was proposed, and agreed to in concept by the FDEP in correspondence dated 2 August 2006. In response to FDEP's request and supported by groundwater monitoring results, Geosyntec prepared a RAP Modification (RAPM) Addendum No. 3 (RAPM3) in May 2016 to propose a focused injection of EOS® in the vicinity of GR-MW30B and implemented the injection activities in April 2017.

PROPOSED SCOPE OF WORK

The proposed scope of work consists of semi-annual groundwater monitoring and reporting and related activities to be performed on behalf of IRC SWDD at the Former South Gifford Road Landfill. For the purpose of budgeting, the scope of work has been divided into the following tasks:

- Task 1 – Project Management;
- Task 2 – Meetings/Regulatory Interaction;
- Task 3 – Annual Pollution Remediation Liabilities Evaluation;
- Task 4 – Semi-Annual Sampling Activities; and
- Task 5 – Data Evaluation and Semi-Annual Reporting.

The remainder of this section presents a general description of the activities to be performed in each task.

Task 1 – Project Management: Under this task, Geosyntec will perform project planning and management responsibilities, such as correspondence with IRC SWDD and FDEP, invoice review, project coordination, and project administration. The budget includes eight hours per sampling/reporting event for the project manager and two hours for the principal-in-charge.

Task 2 – Meetings/Regulatory Interaction: Under this task, Geosyntec will prepare for and attend up to two meetings, with IRC SWDD, FDEP, and/or IRC Board of County Commission, as necessary. It has been assumed that one of these meetings will be in person and one meeting will be attended by conference call. Also, under this task, four hours has been included for the project manager to provide ongoing support to IRC SWDD related to interaction and negotiation with FDEP.

Task 3 – Annual Pollution Remediation Liabilities Evaluation: As requested by IRC SWDD, under this task, Geosyntec will prepare the annual environmental liability evaluation. This document is prepared annually in response to Governmental Accounting Standards Board Statement No. 49 (GASB No. 49), Accounting and Financial Reporting for Pollution Remediation Obligations, which requires the inclusion and calculation of pollution remediation obligations. The

objective of GASB No. 49 is to enhance the usefulness and comparability of pollution remediation obligation information reported by state and local governments. It has been assumed that the report will include evaluation of two sites, including South Gifford Road Closed Landfill (4701 41st Street) and Old Administration Building (1840 25th Street).

Task 4 – Semi-Annual Sampling Activities: Under this task, Geosyntec will perform 2017 field activities related to the plume groundwater monitoring. The semi-annual activities will include field preparation, groundwater sampling, and water level measurements. Field preparation activities will include scheduling and staffing, subcontracting, coordination with the analytical laboratory, field equipment preparation, procurement of Passive Diffusion Bag (PDB) samplers, and notifying FDEP and Vero Beach Municipal Airport of the field schedule. In addition, as required by Chapter 62-528 of the Florida Administrative Code (F.A.C.), underground injection control (UIC) monitoring of GR-MW30B will be completed. A single performance monitoring well (MW-37C) was installed in conjunction with the RAPM3 implementation and will be included in the semi-annual sampling plan for analysis of bioremediation performance parameters, including dissolved gasses, total organic carbon, and dechlorinating microbial concentration.

Geosyntec will perform the groundwater sampling activities associated with the CVOC plume monitoring wells. Sampling activities will be completed with a combination of PDB samplers and traditional low-flow sampling techniques. PDBs are anticipated to be purchased from EON Products, one of the few suppliers of this type of passive sampling device. Groundwater sampling activities will be executed using a two-person sampling crew and will be performed in general accordance with the FDEP Standard Operating Procedures (SOPs). The proposed annual field event will be conducted in summer 2017 (tentatively in June) and will include sampling of nine monitoring wells (five wells using PDBs and four wells with traditional sampling techniques). The annual field event is budgeted to include one day for groundwater sampling activities and one day for PDB deployment for the next sampling event (total of two field days each with two persons). The proposed semi-annual field event will be conducted in winter 2017 (tentatively in December) and will include sampling of 47 monitoring wells (38 wells using PDBs and nine wells with traditional sampling techniques). The semi-annual field event is budgeted to include a total of three days (with two persons) for groundwater sampling activities and PDB deployment for the next sampling event. Consistent field documentation and field protocols will be utilized to develop reliable data to support the natural attenuation evaluation for the groundwater plume. The groundwater samples will be analyzed in accordance with the sampling plan summarized in the December 2016 Semi-Annual Groundwater Monitoring Report and RAPM3 implementation plan.

Geosyntec will conduct a complete round of groundwater level measurements coincident with each semi-annual groundwater sampling event (budgeted for one day with two-person field team for each event). Depth to groundwater measurements will be recorded to the nearest 0.01-ft in each

monitoring well, including existing monitoring wells and applicable City of Vero Beach wells (assumed up to 88 wells per event).

It is anticipated that purge water (investigation-derived waste [IDW]) will be containerized in 55-gallon polyethylene drums and temporarily staged on Site for characterization prior to removal and disposal. Costs are included herein for two 55-gallon polyethylene drums and oversight of drum disposal concurrent with one of the sampling events.

Overall, budget has been included for seven field days with a two-person team (i.e., 14 man days) and associated field expenses for sampling, plus four hours for IDW management.

Task 6 – Data Evaluation and Semi-Annual Reporting: Under this task, Geosyntec will perform data evaluation activities and reporting. The reporting includes preparation of one semi-annual report (simplified format) and one annual report for submittal to FDEP.

The annual report will be consistent with the groundwater monitoring reports historically submitted to FDEP for this Site and the data evaluation activities will include database management, screening results against applicable regulatory criteria, GIS figure preparation, time trend analyses, and/or statistical data analyses. This report will be prepared following the summer groundwater sampling event. The annual report will be supported by attachments containing Chain-of-Custody sheets, field notes and observations, water sampling logs, maps, graphs, analytical results, and any other applicable materials.

The semi-annual report will be a letter report with attachments, including a monitoring well location map and tables of the field and laboratory results. Data evaluation activities for the semi-annual report will include database management, screening results against applicable regulatory criteria, and summary data table preparation. This report will be prepared following the fall/winter groundwater sampling event.

The draft annual and semi-annual reports will be submitted to IRC SWDD for review prior to submittal to FDEP. Each final report will be signed and sealed by a Florida registered professional engineer or geologist.

SCHEDULE

Geosyntec will conduct the groundwater monitoring and reporting activities on a semi-annual basis as described herein. The semi-annual groundwater monitoring events will be tentatively conducted in June and December 2017.

BUDGET ESTIMATE

A budget estimate for the scope of work outlined in Tasks 1 through 5 of this proposal is summarized in the following table, and a detailed budget estimate is provided as Attachment A. The budget estimate presented in this proposal is based on Geosyntec's understanding of the project requirements, our experience gained from executing similar tasks for SWDD since 2002 at the Site, and experience with groundwater monitoring and reporting activities at similar facilities. Geosyntec will not exceed the budget estimate without prior approval and written authorization from IRC SWDD.

Task 1 – Project Management	\$4,726
Task 2 – Meetings/Regulatory Interaction	\$5,142
Task 3 – Annual Pollution Remediation Liabilities Evaluation	\$2,111
Task 4 – Semi-Annual Sampling Activities	\$43,567
Task 5 – Data Evaluation and Semi-Annual Reporting	\$15,910
TOTAL	\$71,456

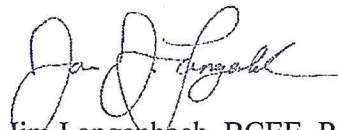
CLOSURE

Geosyntec appreciates this opportunity to offer our services. If this proposal is acceptable, please indicate your agreement by signing the attached work authorization, which references this proposal. Please return one signed work authorization to Ms. Johnson's attention. Please call either of the undersigned with questions you may have as you review this proposal.

Sincerely,



Jill W. Johnson, P.G.
Senior Hydrogeologist



Jim Langenbach, BCEE, P.E.
Senior Principal

Attachments

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ATTACHMENT A
BUDGET ESTIMATE

Table 1

**MAY 2017 BUDGET ESTIMATE
SOUTH GIFFORD ROAD LANDFILL**

PHASE 1: Project Management

ITEM	BASIS	RATE	QUANTITY	ESTIMATED BUDGET
A. Professional Services				
Senior Principal	hr	\$226	2	\$452
Senior Project Geologist	hr	\$188	18	\$3,384
Subtotal Professional Services				\$3,836
B. Technical/Administrative Services				
Administrative Assistant	hr	\$94	8	\$752
Subtotal Technical/Administrative Services				\$752
C. Reimbursables				
Communications Fee	3% labor	0.03	4,588	\$138
Subtotal Reimbursables				\$138
TOTAL ESTIMATED BUDGET : PHASE 1				\$4,726

Table 2

MAY 2017 BUDGET ESTIMATE
SOUTH GIFFORD ROAD LANDFILL

PHASE 2: Meetings/Regulatory Interaction

ITEM	BASIS	RATE	QUANTITY	ESTIMATED BUDGET
A. Professional Services				
Senior Project Geologist	hr	\$188	18	\$3,384
Engineer	hr	\$134	12	\$1,608
Subtotal Professional Services				\$4,992
C. Reimbursables				
Communications Fee	3% labor	0.03	4,992	\$150
Subtotal Reimbursables				\$150
TOTAL ESTIMATED BUDGET : PHASE 2				\$5,142

Table 3

MAY 2017 BUDGET ESTIMATE
SOUTH GIFFORD ROAD LANDFILL

PHASE 3: Annual Pollution Remediation Liabilities Evaluation

ITEM	BASIS	RATE	QUANTITY	ESTIMATED BUDGET
A. Professional Services				
Senior Principal	hr	\$226	2	\$452
Senior Project Geologist	hr	\$188	2	\$376
Project Engineer	hr	\$154	0	\$0
Geologist	hr	\$134	0	\$0
Senior Staff Geologist	hr	\$119	0	\$0
Staff Engineer	hr	\$101	10	\$1,010
Subtotal Professional Services				\$1,838
B. Technical/Administrative Services				
Designer/GIS	hr	\$138	0	\$0
Administrative Assistant	hr	\$94	2	\$188
Subtotal Technical/Administrative Services				\$188
C. Reimbursables				
Communications Fee	3% labor	0.03	2,026	\$61
CADD Computer System	hr	\$15	0	\$0
8.5"x11" Photocopies	each	\$0.12	199	\$24
Subtotal Reimbursables				\$85
TOTAL ESTIMATED BUDGET : PHASE 3				\$2,111

Table 4

MAY 2017 BUDGET ESTIMATE
SOUTH GIFFORD ROAD LANDFILL

PHASE 4: Semi-Annual Sampling Activities

ITEM	BASIS	RATE	QUANTITY	ESTIMATED BUDGET
A. Professional Services				
Senior Project Geologist	hr	\$188	4	\$752
Geologist	hr	\$134	16	\$2,144
Senior Staff Geologist	hr	\$119	100	\$11,900
Subtotal Professional Services				\$14,796
B. Technical/Administrative Services				
Field Superintendent	hr	\$119	100	\$11,900
Administrative Assistant	hr	\$94	2	\$188
Subtotal Technical/Administrative Services				\$12,088
C. Subcontractors				
Laboratory Analysis for VOCs	each	\$59	62	\$3,649
Laboratory Analysis for TOC	each	\$27	5	\$134
Laboratory Analysis for Dissolved Gases	each	\$80	6	\$482
Laboratory Analysis for UIC parameters	each	\$163	2	\$325
Laboratory Analysis for Dhc	each	\$305	2	\$610
Laboratory Analysis for vcrA	each	\$90	2	\$180
Subtotal Subcontractor Services				\$5,379
D. Reimbursables				
PDBs for Summer event	quote	\$32	5	\$160
PDBs for Winter event	quote	\$32	38	\$1,218
Drums	each	\$50	2	\$100
Drum Transport	each	\$963	2	\$1,926
Lodging	day	\$134	14	\$1,876
Per Diem	day	\$59	14	\$826
Communications Fee	3% labor	0.03	\$26,884	\$807
Field Vehicle	day	\$80	14	\$1,120
8.5"x11" Photocopies	each	\$0.12	160	\$19
Overnight Cooler	each	\$95	4	\$380
Groundwater Sampling Kit (per sampler)	day	\$300	8	\$2,400
Water Level Measurement Kit (2 person team)	day	\$55	2	\$110
PDB Deployment Kit	day	\$100	2	\$200
Equipment Shipping	each	\$54	3	\$162
Subtotal Reimbursables				\$11,304
TOTAL ESTIMATED BUDGET : PHASE 4				\$43,567

Notes:

- Lodging and per diem rates were taken from the GSA website for the Vero Beach area (www.gsa.gov).
- Groundwater Sampling Kit includes two sets of the following: water level indicator, peristaltic pump, water quality meter (pH, temperature, conductivity, dissolved oxygen, and oxidation reduction potential), turbidity meter, tubing, and miscellaneous field supplies
- Water Level Measurement Kit includes: water level indicator and miscellaneous field supplies.
- PDB Deployment Kit includes: miscellaneous field supplies necessary to suspend and deploy PDBs.
- UIC parameters include total recoverable petroleum hydrocarbons, polysorbate 80 surfactant, sodium, chloride, and total dissolved solids

Table 5

MAY 2017 BUDGET ESTIMATE
SOUTH GIFFORD ROAD LANDFILL

PHASE 5: Data Evaluation and Semi-Annual Reporting

ITEM	BASIS	RATE	QUANTITY	ESTIMATED BUDGET
A. Professional Services				
Senior Principal	hr	\$226	2	\$452
Senior Project Geologist	hr	\$188	12	\$2,256
Geologist	hr	\$134	30	\$4,020
Senior Staff Geologist	hr	\$119	40	\$4,760
Subtotal Professional Services				\$11,488
B. Technical/Administrative Services				
Designer/GIS	hr	\$138	18	\$2,484
Technical/Administrative Assistant	hr	\$94	8	\$752
Subtotal Technical/Administrative Services				\$3,236
C. Reimbursables				
Communications Fee	3% labor	0.03	\$14,724	\$442
GIS Computer System	hr	\$10	18	\$180
Specialized GIS/Database Computer Systems	hr	\$20	18	\$360
8.5"x11" Photocopies	each	\$0.12	500	\$60
GIS Photocopies	each	\$3	48	\$144
Subtotal Reimbursables				\$1,186
TOTAL ESTIMATED BUDGET : PHASE 5				\$15,910