

## WORK ORDER 2

This Work Order Number 2 is entered into as of this \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, pursuant to that certain Continuing Contract Agreement, dated May 2, 2023 (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 A (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 mutually agreed upon lump sum or maximum amount not-to-exceed professional fee. Any additional costs must be approved in writing, and at a rate not to exceed the prices set forth in Exhibit B (Rate Schedule) of the Agreement, made a part hereof by this reference. The Consultant will perform the professional services within the timeframe more particularly set forth in Exhibit A (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:

By: Joseph 1. Applegate

Print Name: Joseph Applegate

Title: Senior Principal

### BOARD OF COUNTY COMMISSIONERS OF INDIAN RIVER COUNTY

By: \_\_\_\_\_  
Joseph H. Earman, Chairman

BCC Approval Date: \_\_\_\_\_

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

By: \_\_\_\_\_  
Deputy Clerk

By: \_\_\_\_\_  
John A. Titkanich, Jr., County Administrator

Approved as to form and legal sufficiency:

\_\_\_\_\_  
Dylan T. Reingold, County Attorney

**EXHIBIT A**

**SCOPE OF WORK**  
**TIME SCHEDULE**  
**FEE SCHEDULE**

2 June 2023

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

**Subject: Proposal to Provide One Year of Groundwater Monitoring/Reporting and Related Consulting Services and to Complete Remedial Action Plan Modification Addendum No. 4 Pre-Injection Investigation and Design  
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 scope and fee proposal is based on correspondence with the FDEP and discussions with IRC. As requested by IRC, this fee proposal includes budget for the following activities:

- Complete two semi-annual monitoring and reporting events for the plume monitoring well network,
- Provide related consulting services,
- Represent IRC during interactions with regulatory agencies,
- Prepare an annual pollution liabilities evaluation report for identified IRC-owned environmental liabilities, and
- Prepare Remedial Action Plan Modification (RAPM) Addendum No. 4.

Geosyntec has prepared this proposal (professional services as Exhibit A) as Work Order No. 2 for the 2023 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 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.

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 conducted previous bioremediation injection events in 2008, 2009, 2012, and 2017 to remediate recalcitrant CVOC groundwater impacts in the former source area and downgradient biobarriers. Groundwater monitoring results in 2022 suggest that reductive dechlorination has slowed significantly in groundwater at the Site and it is appropriate to plan for an injection event in 2024. In addition to bioremediation activities, semi-annual groundwater monitoring and reporting for CVOCs at 42 monitoring well locations will be conducted in 2023.

## **PROPOSED SCOPE OF WORK**

For the purpose of budgeting, the scope of work has been divided into the following phases:

- Phase 1 – Project Management;
- Phase 2 – Meetings/Regulatory Interaction;
- Phase 3 – Annual Pollution Remediation Liabilities Evaluation;
- Phase 4 – Semi-Annual Sampling Activities;
- Phase 5 – Data Evaluation and Semi-Annual Reporting;
- Phase 6 – Pre-RAPM Addendum No. 4 Injection Activities; and
- Phase 7 – Prepare RAPM Addendum No. 4.

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

**Phase 1 – Project Management:** Under this phase, 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 two hours per month for the project manager (24 hours total) and one hour per month (12 hours total) for the project administrator.

**Phase 2 – Meetings/Regulatory Interaction:** Under this phase, Geosyntec will prepare for and attend up to one meeting, with IRC SWDD, FDEP, and/or IRC Board of County Commissioners, as necessary. It has been assumed that this meeting will be in person. Also, under this phase, four hours has been included for the Senior Principal-in-charge to provide ongoing support to IRC SWDD related to interaction and negotiation with FDEP.

**Phase 3 – Annual Pollution Remediation Liabilities Evaluation:** As requested by IRC SWDD, under this phase, 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 Former South Gifford Road Landfill (4701 41<sup>st</sup> Street) and Former Premier Citrus Property (375 82<sup>nd</sup> Street). In addition, two hours have been included for a Florida-registered Professional Engineer to conduct an independent review of the liability evaluation.

**Phase 4 – Semi-Annual Sampling Activities:** Under this phase, Geosyntec will perform 2023 routine semi-annual groundwater monitoring. The semi-annual activities will include field preparation, water level measurements, and groundwater sampling. Field preparation activities will include scheduling and staffing, subcontracting, coordination with the analytical laboratory, field equipment preparation, procurement of Passive Diffusion Bag (PDB) samplers, coordination with Vero Beach Municipal Airport for water level measurement, and notifying FDEP of the field schedule.

Geosyntec will perform the groundwater sampling activities associated with the CVOC plume monitoring well network. Sampling activities in 2023 will be completed with a combination of PDB samplers, as a cost-savings measure, and traditional low-flow sampling techniques, to evaluate groundwater quality and the occurrence of intrinsic biodegradation. 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 2-person sampling crew and will be performed in general accordance with the FDEP Standard Operating Procedures (SOPs).

The proposed Summer 2023 field event (tentatively scheduled for June 2023) will include sampling and analyses of groundwater from 9 monitoring wells. The Summer 2023 field event is budgeted to include 1 day for groundwater sampling activities and 1 day for PDB deployment for the next sampling event (total of 2 field days each with 2 persons). The proposed Winter 2023 field event (tentatively

scheduled for December 2023) will include sampling of 42 monitoring wells (31 using PDBs and 11 wells via traditional purging techniques) to collect field water quality parameters. The Winter 2023 field event is budgeted to include a total of 3 days (with 2 persons) for groundwater sampling activities and PDB deployment for the Summer 2024 field 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 *2022 Annual Groundwater Monitoring Report*. Quality control samples are proposed to be collected at a rate of 5% of total samples as required by the most recent FDEP SOPs.

Geosyntec will conduct a complete round of groundwater level measurements concurrent with each semi-annual groundwater sampling event (budgeted for 1 day with 2-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 95 wells per event). Overall, for field activities, budget has been included for 7 field days with 2 persons, mobilization time for field personnel, and associated field expenses for sampling.

Due to wet site conditions and difficult access to certain well clusters, costs for rental of a utility phase vehicle are included for 1 day of groundwater level measurements and 1 day of sampling per event (4 total days).

It is anticipated that purge water (investigation-derived waste [IDW]) will be containerized in a 55-gallon polyethylene drum and temporarily staged on Site for characterization prior to removal and disposal. Costs are included herein for purchase of one 55-gallon polyethylene drum, drum removal and disposal by a licensed subcontractor, and for 4 hours of drum removal oversight for 1 person.

**Phase 5 – Data Evaluation and Semi-Annual Reporting:** Under this phase, Geosyntec will perform data evaluation activities and reporting. The reporting includes preparation of the Summer 2023 report (simplified format entitled *Summer 2023 Semi-Annual Groundwater Sampling Results*) and the Winter 2023 report (*2023 Annual Groundwater Monitoring Report*) for submittal to FDEP.

The Summer 2023 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 Summer 2023 report will include database management, screening results against applicable regulatory criteria, and summary data table preparation. This report is due to FDEP by 31 July 2023.

The Winter 2023 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. The Winter 2023 annual report will be supported by attachments containing Chain-of-Custody sheets, field notes and observations, water sampling logs, maps, graphs, analytical results, quantitative statistical evaluation, and other applicable materials. As part of the

statistical analysis, trend analysis graphs showing temporal concentrations of constituents and a summary of the Mann-Kendall statistics will be included to identify increasing, decreasing, or no trends in groundwater constituent concentrations. Historical data summaries will be included for monitoring wells recommended for removal from the monitoring plan.

The draft Summer and Winter 2023 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.

**Phase 6 – Pre-RAPM Addendum No. 4 Injection Activities:** Upon review of data from 2022 sampling events, elevated concentrations of trichloroethene (TCE), *cis*-1,2-dichloroethene (*cis*-1,2-DCE), and vinyl chloride (VC) suggest that reductive dechlorination has slowed significantly in groundwater at the Site, and aquifer conditions (low pH and slightly higher ORP) are less favorable for the occurrence of intrinsic biodegradation. To develop the treatment area that will be presented in the RAPM Addendum No. 4, groundwater samples will be collected in the vicinity of the former source area (near GR-MW30B) and northwest of the former source area (near GR-MW26B) using temporary sampling techniques utilizing a drilling rig. Data from these locations will be used to develop a high resolution CVOC concentration horizontal/vertical profile of the aquifer from which injection intervals will be selected.

Prior to the commencement of field sampling activities, Geosyntec will update the site-specific task hazard analysis (THA). Geosyntec will provide oversight for a contractor to clear brush in the former source area and around select well clusters in preparation for drilling rig mobilization and groundwater sample collection. A private underground utility survey of all proposed drilling locations will also be performed prior to the field event. Costs are included for 1 day oversight (with 1 person) and for subcontractor costs.

DPT drilling will be used to conduct top-down groundwater sample collection at the proposed 12 locations shown on **Figure 1** in the Attachment. Groundwater samples will be collected at 4-foot (ft) discrete intervals beginning at 10-ft below land surface (BLS) to 80-ft BLS (5 samples per location). Groundwater stabilization parameters will be collected during sampling and samples will be submitted to a fixed-base laboratory for analysis of volatile organic compounds (VOCs) by EPA Method 8260B. A continuous soil boring will be advanced in each of the two drilling areas to record site lithology and evaluate mass distribution using a photoionization detector (PID). The proposed discrete groundwater sampling intervals will be selected based upon the area-specific lithologic observations and PID responses from the continuous soil borings.

Upon completion at each drilling location, the borehole will be pressure or tremie grouted from total depth to land surface. A geographical positioning system (GPS) will be used to record horizontal coordinates of all drilling locations. Drilling activities are estimated to take 5 field days with 1 person providing oversight.

During the June 2023 mobilization for the semi-annual groundwater monitoring event, Geosyntec personnel will collect groundwater samples from monitoring wells GR-MW20B, MW26B, MW30B, MW37B, MW02D, MW10D, and MW30CC. Groundwater samples will be collected using conventional low flow purging methods to evaluate concentrations of dechlorination indicators including dissolved gases, total organic carbon, and dehalococcoides (Dhc) and VC- and TCE-reductase analyses (FGA [*vcrA/bvcA/tceA*]). Proposed groundwater sample analyses are provided in Table 10 of the *2022 Annual Groundwater Monitoring Report*. Groundwater sampling activities are estimated to take 2 field days with 1 person to complete.

### **Investigation-Derived Waste (IDW) Management**

Soil removed from the top 5 feet of the subsurface during utility clearing at each location will be returned to the borehole. IDW consisting of purge water and decontamination water from the drilling equipment will be drummed and staged for off-site disposal. Soil cuttings from two DPT soil borings will also be drummed and stored for off-site disposal. IDW characterization samples will be collected and submitted to a fixed-base laboratory for analysis of VOCs by EPA Method 8260B (for liquid IDW) and TCLP VOCs (EPA Method 8260B) and TCLP RCRA 8 metals (EPA Method 6010D and 7470A for mercury) (for solid IDW), as required by the waste disposal facility. The analytical results will be used to profile the IDW prior to transport and disposal. It is assumed that IDW will be characterized as non-hazardous.

The estimated hours and associated breakdown of hours in Phase 6 are as follows:

Staff professional – a total of 20 hours, including:

- 4 hours to prepare the THA;
- 8 hours to prepare for the field event; and
- 8 hours oversight of IDW pickup for off-site disposal.

Senior Staff professional – a total of 100 hours, including:

- 4 hours to prepare for the field event;
- 12 hours to mark locations and oversee the brush clearing and utility locate prior to the field event;
- 60 hours DPT groundwater and soil sampling (five 12-hour days);
- 20 hours monitoring well sampling; and
- 4 hours to return equipment, complete documentation, etc. after the field event;

Senior professional – a total of 20 hours, including:

- 2 hours to review the THA;
- 2 hours for a Senior Geologist to develop the scope of work;
- 4 hours for a Senior Engineer to review the scope of work;
- 10 hours to provide field support and data analysis (2 hours per drilling day); and
- 2 hours of project management/communication with the client.



**Phase 7 – Prepare RAPM Addendum No. 4:** Under this task, supported by results from pre-RAPM Addendum No. 4 injection sampling activities, Geosyntec will prepare RAPM Addendum No. 4 to propose a focused injection of enhanced in situ bioremediation amendments (e.g., electron donor, dechlorinating microbial cultures, and/or buffering agent) to address CVOC impacts in the vicinity of the former source area (near GR-MW30B) and northwest of the former source area (near GR-MW26B). Geosyntec will finalize the bioremediation design based upon the results of the investigation to optimize implementation by providing both an economical and practical approach to meeting the long-term goals of the Site. The draft bioremediation design package will be provided to IRC SWDD electronically via email for review and comment prior to submittal to FDEP. The draft RAPM Addendum No. 4 will include, at a minimum, a proposed injection location figure, dosing calculations specifying the amount of bioremediation amendments required, and summary text outlining the design approach. Effort is included for one round of revisions based on client comments. Within 2 weeks of receiving comments from IRC SWDD on the draft RAPM Addendum No. 4, Geosyntec will submit the final design package to FDEP.

(Note: Budget for the implementation of the bioremediation injection activities that will be proposed in the RAPM has not been included and will be presented under a separate Proposal following Agency approval of the RAPM Add. No. 4).

## **ASSUMPTIONS**

The following assumptions were made in developing this fee proposal:

- IDW for off-site disposal (decontamination water and soil cuttings) will be characterized as non-hazardous.
- If needed, changes to the proposed scope of work, budget or schedule will be agreed upon in writing in advance of the work being performed.
- Adverse weather conditions that require operations to be halted may affect the proposed schedule and budget. Adverse weather conditions may include, but are not limited to, a tornado watch/warning, lightning in the area, and a hurricane or threat of a hurricane.
- If a stop work order is issued for reasons outside of Geosyntec's control, the budgeted cost and schedule shall be subject to revision due to changed circumstances.

## **TIME SCHEDULE**

The semi-annual groundwater sampling events will be tentatively conducted in June and December 2023 as described herein. Reports will be submitted to FDEP to meet required deadlines. RAPM Addendum No. 4 monitoring well sampling activities will be conducted concurrently with the Summer 2023 semi-annual groundwater sampling event. DPT drilling activities will be scheduled within 90 days of approval, given driller availability. The RAPM Addendum No. 4 will be submitted to FDEP within 90 days of receipt of laboratory analytical results.

## BUDGET ESTIMATE

Geosyntec proposes to complete the scope of work described herein on a Total Cost Not to Exceed Price with Fee at risk basis in accordance with the terms of the Continuing Contract Agreement for Consulting Engineering Services between our Indian River County and Geosyntec. The total cost for this work is **\$171,433.02**. Breakdown of the costs by category and by phase is provided below. Detailed costs tables (fee schedule) are included in the Attachment as **Table 1**. Geosyntec will not exceed the budget estimate without prior approval and written authorization from IRC SWDD.

• Personnel Labor	\$121,634.00
• Subcontractors	\$30,613.00
• General Conditions (ODCs)	\$19,186.02
Phase 1 – Project Management	\$7,663.20
Phase 2 – Meetings/Regulatory Interaction	\$4,552.60
Phase 3 – Annual Pollution Remediation Liabilities Evaluation	\$6,087.30
Phase 4 – Semi-Annual Sampling Activities	\$56,242.70
Phase 5 – Data Evaluation and Semi-Annual Reporting	\$17,492.76
Phase 6 – Pre-RAPM Injection Activities	\$60,165.90
Phase 7 – Prepare RAPM Addendum No. 4	\$19,228.56
<b>TOTAL</b>	<b>\$171,433.02</b>

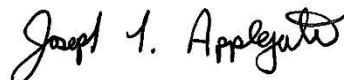
## CLOSURE

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. Please call Crystal Wilson at 850.483.5102 with questions you may have as you review this proposal.

Sincerely,



Crystal Wilson, P.G.  
Senior Geologist



Joseph Applegate, P.G.  
Senior Principal Geologist

## **ATTACHMENT**

### **TABLE 1: GEOSYNTEC PROJECT COST ESTIMATE SUMMARY (FEE SCHEDULE)**

### **FIGURE 1: PROPOSED SAMPLING LOCATIONS**

**Table 1: Geosyntec Project Cost Estimate Summary**

**Client:** Indian River County Solid Waste Disposal District  
**Site:** South Gifford Road Landfill  
**Task:** Groundwater Monitoring/Reporting and Remedial Action Plan  
**Modification Addendum No. 4 Pre-Injection Investigation and Design**  
**Date:** 06/02/23

Phase	Cost Estimate
<b>Personnel Labor</b>	
PHASE 1: Project Management	\$7,440
PHASE 2: Meetings/Regulatory Interaction	\$4,420
PHASE 3: Annual Pollution Remediation Liabilities Evaluation	\$5,910
PHASE 4: Semi-Annual Sampling Activities	\$40,590
PHASE 5: Data Evaluation and Semi-Annual Reporting	\$16,692
PHASE 6: Pre-RAPM Injection Activities	\$28,030
PHASE 7: Prepare RAPM Addendum No. 4	\$18,552
Personnel Labor Total	<b>\$121,634.00</b>
<b>Subcontractor</b>	
PHASE 1: Project Management	\$0
PHASE 2: Meetings/Regulatory Interaction	\$0
PHASE 3: Annual Pollution Remediation Liabilities Evaluation	\$0
PHASE 4: Semi-Annual Sampling Activities	\$4,908
PHASE 5: Data Evaluation and Semi-Annual Reporting	\$0
PHASE 6: Pre-RAPM Injection Activities	\$25,705
PHASE 7: Prepare RAPM Addendum No. 4	\$0
Subcontractor Total	<b>\$30,613</b>
<b>General Conditions - ODCs</b>	
PHASE 1: Project Management	\$223.20
PHASE 2: Meetings/Regulatory Interaction	\$132.60
PHASE 3: Annual Pollution Remediation Liabilities Evaluation	\$177.30
PHASE 4: Semi-Annual Sampling Activities	\$10,744.70
PHASE 5: Data Evaluation and Semi-Annual Reporting	\$800.76
PHASE 6: Pre-RAPM Injection Activities	\$6,430.90
PHASE 7: Prepare RAPM Addendum No. 4	\$676.56
General Conditions Total	<b>\$19,186.02</b>
<b>Estimated Project Cost:</b>	<b>\$171,433.02</b>

**PHASE 1: Project Management**  
**2023 BUDGET ESTIMATE**  
**SOUTH GIFFORD ROAD LANDFILL**

ITEM	BASIS	RATE	QUANTITY	ESTIMATED BUDGET
<b>A. Professional Services</b>				
Senior Professional	hr	\$265	24	\$6,360
<b>Subtotal Professional Services</b>				<b>\$6,360</b>
<b>B. Technical/Administrative Services</b>				
Project Administrator	hr	\$90	12	\$1,080
<b>Subtotal Technical/Administrative Services</b>				<b>\$1,080</b>
<b>C. Reimbursables</b>				
Communications Fee	3% labor	0.03	7,440	\$223.20
<b>Subtotal Reimbursables</b>				<b>\$223.20</b>
<b>TOTAL ESTIMATED BUDGET : PHASE 1</b>				<b>\$7,663.20</b>

**PHASE 2: Meetings/Regulatory Interaction**  
**2023 BUDGET ESTIMATE**  
**SOUTH GIFFORD ROAD LANDFILL**

ITEM	BASIS	RATE	QUANTITY	ESTIMATED BUDGET
<b>A. Professional Services</b>				
Senior Principal	hr	\$310	4	\$1,240
Senior Professional	hr	\$265	12	\$3,180
Subtotal Professional Services				<b>\$4,420</b>
<b>B. Technical/Administrative Services</b>				
Subtotal Technical/Administrative Services				<b>\$0</b>
<b>C. Reimbursables</b>				
Communications Fee	3% labor	0.03	4,420	\$132.60
Subtotal Reimbursables				<b>\$132.60</b>
<b>TOTAL ESTIMATED BUDGET : PHASE 2</b>				<b>\$4,552.60</b>

**PHASE 3: Annual Pollution Remediation Liabilities Evaluation**  
**2023 BUDGET ESTIMATE**  
**SOUTH GIFFORD ROAD LANDFILL**

ITEM	BASIS	RATE	QUANTITY	ESTIMATED BUDGET
<b>A. Professional Services</b>				
Senior Principal	hr	\$310	4	\$1,240
Senior Professional	hr	\$265	6	\$1,590
Senior Staff Professional	hr	\$184	16	\$2,944
<b>Subtotal Professional Services</b>				<b>\$5,774</b>
<b>B. Technical/Administrative Services</b>				
Clerical	hr	\$68	2	\$136
<b>Subtotal Technical/Administrative Services</b>				<b>\$136</b>
<b>C. Reimbursables</b>				
Communications Fee	3% labor	0.03	5,910	\$177.30
<b>Subtotal Reimbursables</b>				<b>\$177.30</b>
<b>TOTAL ESTIMATED BUDGET : PHASE 4</b>				<b>\$6,087.30</b>

**PHASE 4: Semi-Annual Sampling Activities**  
**2023 BUDGET ESTIMATE**  
**SOUTH GIFFORD ROAD LANDFILL**

ITEM	BASIS	RATE	QUANTITY	ESTIMATED BUDGET
<b>A. Professional Services</b>				
Senior Principal	hr	\$310	2	\$620
Senior Professional	hr	\$265	16	\$4,240
Senior Staff Professional	hr	\$184	100	\$18,400
Staff Professional	hr	\$160	104	\$16,640
<b>Subtotal Professional Services</b>				<b>\$39,900</b>
<b>B. Technical/Administrative Services</b>				
Designer	hr	\$165	2	\$330
Project Administrator	hr	\$90	4	\$360
<b>Subtotal Technical/Administrative Services</b>				<b>\$690</b>
<b>C. Subcontractors</b>				
Drum Transport/Disposal	each	\$288	1	\$288
Laboratory Analysis for VOCs	each	\$84	55	\$4,620
<b>Subtotal Subcontractor Services</b>				<b>\$4,908</b>
<b>D. Reimbursables</b>				
Communications Fee	3% labor	0.03	\$40,590	\$1,217.70
Miscellaneous Supplies - Summer (3), Winter (4)	day	\$50	7	\$350
PDBs for Winter 2023 event (includes shipping)	quote	\$34	35	\$1,190
PDBs for Summer 2024 event (includes shipping)	quote	\$34	12	\$408
Drum for Purge Water	each	\$50	1	\$50
Lodging - Summer (2x2), Winter (3x2)	day	\$185	10	\$1,850
Per Diem - Summer (3x2), Winter (4x2)	day	\$59	14	\$826
Utility Task Vehicle Rental (daily rate plus delivery fee)	day	\$210	4	\$840
Field Vehicle - Summer (3x2), Winter (4x2), IDW (1)	day	\$100	15	\$1,500
Overnight Cooler-Test America - Summer (1), Winter (2)	each	\$95	3	\$285
Groundwater Sampling Kit (per sampler) - Summer (1x2), Winter (2x2)	day	\$300	6	\$1,800
Water Level Measurement Kit - Summer (1), Winter (1)	day	\$60	2	\$120
PDB Deployment Kit - Summer (1), Winter (1)	day	\$100	2	\$200
Equipment Shipping - Summer (1), Winter (1)	each	\$54	2	\$108
<b>Subtotal Reimbursables</b>				<b>\$10,744.70</b>
<b>TOTAL ESTIMATED BUDGET : PHASE 5</b>				<b>\$56,242.70</b>

Notes:

- Lodging rates were taken from the GSA website for the Vero Beach area (<https://www.gsa.gov/travel/plan-book/per-diem-rates/>).
- 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.



**PHASE 5: Data Evaluation and Semi-Annual Reporting**  
**2023 BUDGET ESTIMATE**  
**SOUTH GIFFORD ROAD LANDFILL**

ITEM	BASIS	RATE	QUANTITY	ESTIMATED BUDGET
<b>A. Professional Services</b>				
Senior Principal	hr	\$310	4	\$1,240
Senior Professional	hr	\$265	24	\$6,360
Senior Staff Professional	hr	\$184	30	\$5,520
<b>Subtotal Professional Services</b>				<b>\$13,120</b>
<b>B. Technical/Administrative Services</b>				
Designer	hr	\$165	20	\$3,300
Clerical	hr	\$68	4	\$272
<b>Subtotal Technical/Administrative Services</b>				<b>\$3,572</b>
<b>C. Reimbursables</b>				
Communications Fee	3% labor	0.03	\$16,692	\$500.76
Specialized Computer Applications	hr	\$15	20	\$300
<b>Subtotal Reimbursables</b>				<b>\$800.76</b>
<b>TOTAL ESTIMATED BUDGET : PHASE 6</b>				<b>\$17,492.76</b>

**PHASE 6: Pre-RAPM Injection Activities  
2023 BUDGET ESTIMATE  
SOUTH GIFFORD ROAD LANDFILL**

ITEM	BASIS	RATE	QUANTITY	ESTIMATED BUDGET
<b>A. Professional Services</b>				
Senior Principal	hr	\$310	2	\$620
Senior Professional	hr	\$265	20	\$5,300
Senior Staff Professional	hr	\$184	100	\$18,400
Staff Professional	hr	\$160	20	\$3,200
<b>Subtotal Professional Services</b>				<b>\$27,520</b>
<b>B. Technical/Administrative Services</b>				
Designer	hr	\$165	2	\$330
Project Administrator	hr	\$90	2	\$180
<b>Subtotal Technical/Administrative Services</b>				<b>\$510</b>
<b>C. Subcontractors</b>				
Brush Clearing Contractor	each	\$2,300	1	\$2,300
Utility Scanning Services	half-day	\$863	1	\$863
Drilling Contractor	each	\$14,220	1	\$14,220
Laboratory Analysis for VOCs (DPT GW [60], QC [1], liquid IDW [1])	each	\$84	62	\$5,208
Laboratory Analysis for TOC	each	\$37	4	\$148
Laboratory Analysis for Dissolved Gases	each	\$106	7	\$742
Laboratory Analysis for <i>Dehalococcoides</i>	each	\$310	3	\$930
Laboratory Analysis for VC-reductases/TCE-reductase	each	\$100	3	\$300
Laboratory Analysis for TCLP VOCs (solid IDW)	each	\$115	1	\$115
Laboratory Analysis for TCLP RCRA 8 (solid IDW)	each	\$129	1	\$129
Drum Transport/Disposal	each	\$150	5	\$750
<b>Subtotal Subcontractor Services</b>				<b>\$25,705</b>
<b>D. Reimbursables</b>				
Communications Fee	3% labor	0.03	\$28,030	\$840.90
Miscellaneous Supplies - Brush Clearing/Utility Scan (1), DPT (5), MW Sampling (2)	day	\$50	8	\$400
Drum for Purge Water	each	\$50	1	\$50
Lodging - DPT (4), MW Sampling (1)	day	\$185	5	\$925
Per Diem - Brush Clearing/Utility Scan (1), DPT (5), MW Sampling (2)	day	\$59	8	\$472
Field Vehicle - Brush Clearing/Utility Scan (1), DPT (5), MW Sampling (2), Drum Disposal (1)	day	\$100	9	\$900
Overnight Cooler-Test America - DPT (1), MW Sampling (1)	each	\$95	2	\$190
Overnight Cooler-SIREM	each	\$100	1	\$100
Groundwater Sampling Kit	day	\$500	2	\$1,000
Water Quality Multi-Meter	week	\$490	1	\$490
Photoionization Detector	week	\$315	1	\$315
GPS - Handheld	day	\$320	2	\$640
Equipment Shipping - DPT (1), MW Sampling (1)	each	\$54	2	\$108
<b>Subtotal Reimbursables</b>				<b>\$6,430.90</b>
<b>TOTAL ESTIMATED BUDGET : PHASE 5</b>				<b>\$60,165.90</b>

Notes:

- Lodging rates were taken from the GSA website for the Vero Beach area (<https://www.gsa.gov/travel/plan-book/per-diem-rates/>).
- Groundwater Sampling Kit includes water level indicator, peristaltic pump, water quality meter, turbidity meter, and tubing for use during monitoring well (MW) sampling.
- Water Quality Multi-Meter and Photoionization Detector for use during DPT sampling event.

**PHASE 7: Prepare RAPM Addendum No. 4**  
**2023 BUDGET ESTIMATE**  
**SOUTH GIFFORD ROAD LANDFILL**

ITEM	BASIS	RATE	QUANTITY	ESTIMATED BUDGET
<b>A. Professional Services</b>				
Senior Principal	hr	\$310	4	\$1,240
Senior Professional	hr	\$265	40	\$10,600
Staff Professional	hr	\$160	32	\$5,120
<b>Subtotal Professional Services</b>				<b>\$16,960</b>
<b>B. Technical/Administrative Services</b>				
Designer	hr	\$165	8	\$1,320
Clerical	hr	\$68	4	\$272
<b>Subtotal Technical/Administrative Services</b>				<b>\$1,592</b>
<b>C. Reimbursables</b>				
Communications Fee	3% labor	0.03	18,552	\$556.56
Specialized Computer Applications	hr	\$15	8	\$120.00
<b>Subtotal Reimbursables</b>				<b>\$676.56</b>
<b>TOTAL ESTIMATED BUDGET : PHASE 3</b>				<b>\$19,228.56</b>

