



22 April 2024

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

Subject: Project Completion Report

Groundwater Monitoring/Reporting and RAPM No. 4 Pre-Injection Investigation and

Design, IRC Work Order No. 2 South Gifford Road Landfill

Dear Mr. Mehta:

Geosyntec Consultants (Geosyntec) is pleased to present to you this project completion report for Geosyntec Project No. FR0766U – Groundwater Monitoring/Reporting and RAPM No. 4 Pre-Injection Investigation and Design for the South Gifford Road Landfill site. This project was completed under Work Order No. 2, authorized on 11 July 2023, pursuant to the 2023 Continuing Contract Agreement for Professional Services between IRC SWDD and Geosyntec, authorized on 16 May 2023. This report has been prepared as a supplement to our final Invoice No. 556429 dated 10 April 2024, which is attached.

SCOPE OF WORK

The scope of work authorized under Work Order No. 2 addressed the FDEP-required semi-annual groundwater monitoring and reporting for one year (two sampling and reporting events) and related consulting services. The project was executed under the following phases (tasks): (i) Project Management; (ii) Meetings/Regulatory Interaction; (iii) Annual Pollution Remediation Liabilities Evaluation; (iv) Semi-Annual Sampling Activities; (v) Data Evaluation and Semi-Annual Reporting; (vi) Pre-Remedial Action Plan Modification (RAPM) Addendum No. 4 Injection Activities; and (vii) Prepare RAPM Addendum No. 4. Below is a summary of the work by phase that Geosyntec performed under this work authorization.

Phase 1 – Project Management

Under this phase, Geosyntec performed project planning and management responsibilities, such as correspondence with IRC SWDD and FDEP, invoice review and completion, project coordination, and project administration.

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<u>Phase 2 – Meetings/Regulatory Interaction</u>

Under this phase, Geosyntec provided ongoing support to IRC SWDD related to interaction and negotiation with FDEP.

Phase 3 – Annual Pollution Remediation Liabilities Evaluation

Under this phase, Geosyntec prepared the annual environmental liability evaluation 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 report included the evaluation of two sites, South Gifford Road Closed Landfill (4701 41st Street) and Former Premier Citrus – Commander Groves Property (375 82nd Avenue) and was submitted to IRC on 31 October 2023.

Phase 4 – Semi-Annual Sampling Activities

Under this phase, Geosyntec conducted field preparation and groundwater sampling activities for two semi-annual groundwater monitoring events in June and December 2023. Throughout these sampling events, a total of 52 groundwater samples for analysis for volatile organic compounds (VOCs) were collected under this work authorization.

Phase 5 – Data Evaluation and Semi-Annual Reporting

Under this phase, Geosyntec prepared the semi-annual reports for the June and December 2023 groundwater sampling events. As part of the report preparation, Geosyntec completed database management, data evaluation, trend evaluation, table preparation, and GIS figure preparation. Groundwater monitoring results in 2023 suggested that the plume monitoring well network could be reduced to account for plume shrinkage since the previous 2017 bioremediation injection targeting chlorinated VOCs (CVOCs). In the 2023 Annual Groundwater Monitoring Report (GMR) submitted to FDEP on 28 February 2024, Geosyntec recommended to remove 16 monitoring wells from the 2024 sampling and analysis plan, reducing the number of monitoring wells sampled from 42 to 26, a 38% decrease. Geosyntec also recommended to change the reporting frequency from semi-annual to annual. FDEP approved these recommendations to reduce sampling and reporting frequency in an approval letter dated 18 March 2024.

Phase 6 - Pre-RAPM Addendum No. 4 Injection Activities

Under this phase in June 2023, Geosyntec personnel collected groundwater samples from seven monitoring wells to evaluate concentrations of dechlorination indicators including dissolved gases, total organic carbon, and microbial populations.

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Under this phase in October 2023, Geosyntec provided oversight for a contractor to clear brush in the former source area in preparation for drilling rig mobilization and groundwater sample collection. Geosyntec also provided oversight for a private underground utility survey of the proposed drilling locations. Sixty groundwater samples were collected using direct push technology (DPT) drilling in the vicinity of the former source area and northwest of the former source area. Two continuous soil borings were advanced to record site lithology and evaluate mass distribution using a photoionization detector (PID).

Investigative-derived waste generated during 2023 and 2024 field activities was containerized in 55-gallon polyethylene drums, characterized as non-hazardous by laboratory analyses, and removed and disposed of by a licensed subcontractor in March 2024.

Phase 7 - Prepare RAPM Addendum No. 4

Initial analysis of the pre-RAPM Addendum No. 4 DPT groundwater analytical and soil screening data indicated inconsistencies when compared to nearby monitoring well data. Although not originally scoped in Work Order No. 2, Geosyntec personnel mobilized to the site and redeveloped three monitoring wells and collected confirmation samples within the budget of the current approval. Confirmation groundwater samples were more consistent with historical results and indicated that enhanced bioremediation processes are actively occurring and additional injection to stimulate these processes is not prudent at this time. A *Groundwater Investigation Memorandum* documenting DPT groundwater data collected in October 2023, as well as groundwater data collected in June and December 2023 and February 2024 from monitoring wells was submitted to FDEP as Appendix A to the 2023 Annual GMR.

BUDGET

The approved budget for Work Order No. 2 was \$171,433.02. The total invoiced amount, including the final invoice, is \$171,393.92. Geosyntec completed this project below the approved budget.

CLOSURE

Geosyntec appreciates the opportunity to provide services to Indian River County. If you have any question regarding this correspondence, please feel free to contact the undersigned at 850 483-5102.

Sincerely,

Crystal Wilson, P.G. (FL, AL)

Captal Wilson

Senior Geologist

Joseph Applegate, P.G. (FL) Senior Principal Geologist

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Table 1
Summary of Invoices Submitted for Geosyntec's Project Number FR0766U
South Gifford Road Landfill

Geosyntec Project Number/IRC Work Authorization Number	Invoice No.	Invoice Date	Amount
	523379	08/18/2023	\$26,350.03
	526406	09/12/2023	\$3,964.73
	529810	10/11/2023	\$3,458.23
	534081	11/16/2023	\$56,262.77
FR0766U	537558	12/15/2023	\$7481.76
(IRC Work Order No. 2)	541229	01/16/2024	\$24,667.47
	546449	02/16/2024	\$20,222.93
	549022	03/04/2024	\$28,123.50
	556429	04/10/2024	\$862.50
	TOTAL		\$171,393.92



6770 South Washington Avenue, Suite 3 Titusville, Florida 32780 PH 321.269.5880 www.geosyntec.com

22 April 2024

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

Subject: Project Management Report and Transmittal of Invoice

South Gifford Road Landfill – Work Order No. 2

Dear Mr. Mehta:

Geosyntec Consultants (Geosyntec) prepared this project management report to address the Plume Groundwater Monitoring and Remedial Action Plan Modification Addendum Number 4 (RAPM No. 4) Design project being conducted by Geosyntec on behalf of Indian River County (IRC) Solid Waste Disposal District (SWDD) at the South Gifford Road Landfill site. This report presents: (i) a budget overview for this project; (ii) a summary of activities completed to date; (iii) a discussion of the work reflected on the enclosed invoice; and (iv) recommended actions for the site. The enclosed invoice reflects labor and expenses through 31 March 2024 for work being performed at the South Gifford Road Landfill. Table 1 provides invoicing details for the project.

Work Order No. 2 was approved by IRC on 11 July 2023 and the budget for the project was developed using labor rates that were approved by IRC in 2023 (Continuing Contract Agreement for Consulting Engineering Services dated 16 May 2023).

PROJECT MANAGEMENT SUMMARY

<u>Geosyntec's Project No. FR0766U</u>: Groundwater Monitoring/Reporting and RAPM No. 4 Pre-Injection Investigation and Design (IRC Work Order No. 2)

Budget Overview

Invoice No. 556429 dated 10 April 2024 for \$862.50, Project No. FR0766U is enclosed. Listed below is a summary of the budget, including invoiced amount, and remaining budget. Geosyntec is within the budget appropriated for this project.

Approved Budget: \$ 171,433.02 Invoiced Amount to-date: \$ 171,393.92 Remaining Budget: \$ 39.10

Work Completed to Date

The summer 2023 semi-annual groundwater monitoring event was completed the week of 26 June 2023. The semi-annual groundwater monitoring report was submitted to Florida Department of Environmental Protection (FDEP) on 31 July 2023 and approved by FDEP on 21 August 2023.

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Geosyntec personnel and a drilling subcontractor mobilized to the site the week of 9 October 2023 for field activities related to the RAPM No. 4. Groundwater samples were collected using direct push technology (DPT) drilling in the vicinity of the former source area and northwest of the former source area. Data from the RAPM No. 4 field activities and next step recommendations were submitted to FDEP at the same time as the 2023 Annual Groundwater Monitoring Report (GMR). The Annual Pollution Remediation Liabilities Evaluation was submitted to IRC on 31 October 2023. The winter 2023 semi-annual groundwater monitoring event was completed the week of 4 December 2023. Due to inconsistencies in the groundwater analytical data reported in December 2023 at three monitoring wells, Geosyntec personnel remobilized to the Site on 6 and 7 February 2024 to redevelop the wells and collect confirmation groundwater samples. This additional effort is covered under the current authorization. The 2023 Annual GMR was submitted to FDEP on 28 February 2024 and recommended to significantly reduce the plume monitoring well network. Investigation-derived waste (IDW) generated during 2023 and 2024 field activities and containerized in a 55-gallon polyethylene drum was removed and disposed of by a licensed subcontractor in March 2024.

Work Reflected on Enclosed Invoice

Reimbursable expenses (\$862.50) reflected on the enclosed invoice are associated with subcontractor costs for offsite transport and disposal of six 55-gallon drums of nonhazardous liquids.

CLOSURE

Geosyntec appreciates the opportunity to provide services to Indian River County. If you have any questions regarding this correspondence, please feel free to contact me at (850) 483-5102.

Sincerely,

Crystal Wilson, P.G. (FL) Senior Geologist

Cuptal Wilson

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	TOTAL		\$171,393.92





900 Broken Sound Parkway NW, Suite 200 Boca Raton, Florida 33487-3575 USA Tel (561) 995-0900 Fax (561) 995-0925

INDIAN RIVER COUNTY 1325 74TH AVENUE, S.W. VERO BEACH, FL 32968 Attention: HIMANSHU MEHTA

Invoice #: 556429 Invoice Date: 4/10/2024 Project: FR0766U

Project Name: 2023 GIFFORD GWM PRE RAPM

For Professional Services Rendered through transaction date: 3/31/2024

IF YOU HAVE QUESTIONS ABOUT THIS INVOICE, PLEASE CONTACT CRYSTAL WILSON AT 850-483-5102.

WORK ORDER #2 DATED JULY 11, 2023

Reimbursable Expenses \$862.50

Current Invoice \$862.50

**Amount Due This Invoice ** \$862.50

Statement			
Prior Billings	\$170,531.42	Project Budget	\$171,433.02
Current Invoice	\$862.50	Expended to Date	\$171,393.92
Billed To Date	\$171,393.92	Contract Balance	\$39.10
Paid To Date	\$170,531.42	**Amount Due This Invoice **	\$862.50

Geosyntec and its subsidiaries will not send updated bank information without a follow up telephone conversation. Any bank information update received without verbal confirmation from the appropriate Geosyntec employee should not be relied upon for payment. It is Client's responsibility to verify the change in bank information prior to issuing payment. Client will remain liable for full payment of Geosyntec's invoices where Geosyntec does not receive payment as a result of Client's use of unconfirmed bank information.

When making payment via bank, please include our invoice number in ACH information; Please email invoice payment remittance/details to CorporateAR@Geosyntec.com.

Bank Details: Citibank N.A. Coconut Creek Branch 0529

4807 Coconut Creek Pkwy ABA/Routing: 067004764 (ACH) 266086554 (Wire)

Coconut Creek, FL 33063 Swift: CITI US 33

When making payment via check, please remit payment to: Mail Code 11160

P.O. Box 70280

Account #: 2195223812

Philadelphia, PA 19176-0280

Project :	FR0766U 2023 GIFFORD GWM PRE RAPM	Invoice # :556429
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endor Name	Doc Nbr	Date	Cost	Multiplier	Amount
Subcontractors-Billable ERWIN REMEDIATION, INC.	GEOS139	03/26/2024	750.00 1	1.15	862.50
Total Phase: 04) SEMI-ANNUAL SA	MPLING ACTIVITES	Phase Exper		kpense	862.50
		Total Project Expense			
Total Project: FR0766U 2023 GIFFORD GWM PRE RAPM					862.50

INCPMGEOPH Page 2

Invoice



P.O. Box 884 Gulf Breeze, FL 32562 (850) 292-6511 ErwinRemediation@gmail.com 3/26/2024 GEOS139

Geosyntec Consultants 19321 US Highway 19 N Building C, Suite 200 Clearwater, FL 33764 invoicesflorida@geosyntec.com

Site Name		Site City			
Grifford Landfill Vero Beach					
		WO #1000	57549 Proj #FR0	766U	
Date	Quantity	Item		Rate	Amount
3/19/2024	6	Drum Disp - Non-Haz Groun	dwater	125.00	750.00
			Total		\$750.00