

CCNA2018 WORK ORDER _8_

2020 GROUNDWATER TECHNICAL SUPPORT SERVICES

This Work Order Number _8_ is entered into as of this ____ day of _____, 2020_, pursuant to that certain Continuing Consulting Engineering Services Agreement for Professional Services entered into as of this 17th day of April, 2018 (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 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 fee schedule set forth in Exhibit A (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 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: 

Jim Langenbach, P.E.

Title: _____
Vice-President

BOARD OF COUNTY COMMISSIONERS OF INDIAN RIVER COUNTY

By: _____
Susan Adams, Chairman

BCC Approved Date: _____

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

By: _____
Deputy Clerk

Approved: _____
Jason E. Brown, County Administrator

Approved as to form and legal sufficiency: _____
Dylan T. Reingold, County Attorney

EXHIBIT A

PROFESSIONAL SERVICES

Scope, Schedule and Fee

29 September 2020

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 Groundwater Compliance Technical Support Services
 Class I Landfill and C&D Debris Disposal Facility
 Indian River County Landfill Facility
 Vero Beach, Indian River County, Florida**

Dear Mr. Mehta:

Geosyntec Consultants, Inc. (Geosyntec) is pleased to submit this letter proposal to the Indian River County (IRC) Solid Waste Disposal District (SWDD) to provide professional services supporting the operation of the Class I landfill and Construction and Demolition (C&D) debris disposal facility at the IRC Landfill (IRCL) site located in Vero Beach, Indian River County, Florida (Site). The proposal presents the scope of work, schedule, and budget estimate for the technical support services relating to groundwater compliance at the Class I Landfill and the C&D disposal facility.

Geosyntec has prepared this proposal (professional services as Exhibit A of CCNA-2018-WO No. 8, pursuant to that certain Continuing Contract Agreement for Professional Services, dated April 17, 2018 (collectively referred to as the “Agreement”), by and between INDIAN RIVER COUNTY, a political subdivision of the State of Florida (“COUNTY”) and Geosyntec (“Consultant”).

The remainder of this proposal presents: (i) project background; (ii) proposed scope of services; (iii) schedule; and (iv) budget estimate.

PROJECT BACKGROUND

The IRCL site is located south of Oslo Road, west of Range Line Road (74th Avenue) and east of Interstate 95 in Section 25, Township 33 South, Range 38 East in Indian River County, Florida. The IRCL site occupies 276 acres, with approximately 141.5 acres permitted for Class I disposal,

19 acres is comprised of Cell 1 C&D debris disposal facility, and 2.5 acres consists of a C&D debris recycling facility.

The Class I landfill currently accepts both Class I waste and C&D debris for disposal under the Florida Department of Environmental Protection (FDEP) Construct and Operate Permit Modification Nos. 0128769-026-SC-IM and 0128769-027-SO-MM, dated April 2, 2018 (Class I Permit). The C&D debris disposal facility operates under FDEP Permit No. 0128769-025-SO-24, dated July 13, 2017 (C&D Permit).

The Water Quality Monitoring Plan (WQMP) for each of the IRCL facilities permits (which is listed as Appendix 3 of each permit) indicates that groundwater and surface water quality monitoring are required. Semi-annual sampling of the Class I landfill and C&D debris disposal facility groundwater monitoring wells shall be conducted in January and July 2020. The samples collected from the Class I landfill and C&D debris disposal facility monitoring wells shall be analyzed for the routine monitoring parameters listed in Section II.3 (Class I Permit) and Paragraph 8 (C&D Permit) of the WQMP, respectively, as required by paragraphs 62-701.510(5)(c) & (7)(a) and 62-701.730(8)(d), Florida Administrative Code (F.A.C.). Samples from one surface water monitoring site (SW-2) shall be collected semi-annually in January and July, if water is discharging from the stormwater pond. The samples, if collected, shall be analyzed for the list of parameters listed in Section III.2 of the Class I Landfill WQMP, as required by paragraphs 62-701.510 (5)(d) and (7)(b), F.A.C.

Semi-Annual Water Quality Compliance Monitoring for the Class I Landfill

A comment letter from FDEP dated 6 May 2020 provided comments regarding the results of the January 2020 Semi-Annual Water Quality Monitoring Report for the Class I landfill. The FDEP provided notification to SWDD to initiate evaluation monitoring at all monitoring wells with detected exceedances above applicable groundwater cleanup target levels (GCTLs) for pH, ammonia, chloride, sodium, TDS and arsenic. Geosyntec provided a response to comments (RTC) letter the FDEP comment letter on 28 May 2020 which focused on the long-term trends with the dataset available from the FDEP Water Assurance Compliance System (WACS) database and requested a reduction of evaluation monitoring locations from 25 locations (as originally requested by the FDEP in the 8 May 2020 letter) to 4 locations (specifically downgradient of MW-3S, MW-14S, MW-44S and MW-44I). The FDEP approved this request in a letter dated 14 August 2020 and the 90-day evaluation monitoring period was initiated on 17 September 2020 through a second RTC letter provided to FDEP.

Quarterly Assessment Water Quality Compliance Monitoring for the C&D Debris Disposal Facility

Results of routine sampling of C&D debris disposal facility groundwater monitoring well (MW-21S) in January 2017 indicated exceedances of benzene and sodium GCTLs. As a result, SWDD was requested by FDEP to initiate evaluation monitoring in accordance with subsection 62-701.510(6), F.A.C. Pursuant to this request SWDD installed one groundwater monitoring well (MW-49S) in July 2017. These and other wells (MW-21S, MW-33S, MW-35S, MW-40S, MW-49S, MW-50S, MW-51S, and MW-52S) and three surface water (SW) Lateral Canal (LC) sample sites (SW-LC1, SW-LC2, and SW-LC3) have been sampled quarterly from July 2017 to October 2019 under an evaluation monitoring program with FDEP. However, in correspondence from FDEP to SWDD dated 14 October 2019, the FDEP approved SWDD's request to replace the evaluation monitoring of the eight groundwater wells and three surface water sample sites with quarterly assessment monitoring and with the addition of other parameters (arsenic, benzene, naphthalene, and other semi-volatile organic compounds [VOCs]) to the suite of parameters to be analyzed for at these wells. The FDEP also requested establishing background water quality for seven (7) additional surface water sampling sites (LC4-SW to LC10-SW) along the Lateral C canal. SWDD sampled and analyzed water-quality for these surface water sites in the January and April 2020 quarterly water-quality assessment events. Following, the April 2020 quarterly sampling event, FDEP approved (via e-mail on 17 July 2020) SWDD's request to limit the monitoring of the surface water sites to SW-LC1, SW-LC2, SW-LC3 and SW-LC4.

Results of the quarterly sampling downgradient of the C&D debris disposal facility have indicated persistent detections of ammonia, arsenic, sodium, iron, TDS, TN and TP in groundwater and persistent detections of ammonia, sodium, iron, TDS, TN and TP in surface water sampling locations in the Lateral C Canal adjacent to the evaluation groundwater monitoring locations. Geosyntec completed a site visit on 21 July 2020 as summarized in a 10 August 2020 memorandum to SWDD. One of the objectives of the site visit was to visually observe the site conditions on the east side of the C&D debris disposal facility and the Residuals Dewatering Facility (RDF) relative to the current monitoring wells and surface water monitoring locations. A stormwater management ditch located between the C&D debris disposal facility and the RDF is suspected to be a potential source area for the persistent detections. A supplemental groundwater assessment is recommended in this area to identify the lateral and vertical extent of the groundwater impacts and to collect information to evaluate the remedial alternatives including groundwater extraction via *TreeWell*® phytoremediation technology. The information collected will be valuable with respect to other areas at the Site should additional assessment be required.

TreeWell systems are engineered phytoremediation plantings designed to aggressively draw groundwater from the saturated zone, thereby increasing groundwater extraction rates and meaningfully controlling the flow dynamics of an aquifer. It is an active remedial system that operates in a passive manner, with no external energy requirement, resulting in significantly reduced operation and maintenance (O&M) costs. Geosyntec has the experience to design and implement these systems and is licensed to provide *TreeWell* units to our clients. We have successfully implemented these systems in Florida and across North America.

PROPOSED SCOPE OF SERVICES

The proposed scope of services includes activities to be performed on behalf of SWDD for the evaluation monitoring downgradient of the four wells for the Class I landfill and supplemental groundwater assessment at the C&D debris disposal facility. For the purpose of budgeting, the scope of work has been divided into the following four (4) main phases:

- Phase 1 – General Consulting/Meeting Support/Project Management;
- Phase 2 – Database Preparation;
- Phase 3 – C&D Debris Disposal Facility Supplemental Groundwater Assessment; and
- Phase 4 – Class I Landfill Evaluation Monitoring.

The above scope of services is based on current regulations and reporting requirements for the IRCL facility as previously discussed above. An amendment to this scope of services may be needed should there be any regulatory changes that result in additional work. The remainder of this section presents a general description of the activities to be performed in each phase.

Phase 1 – General Consulting/Meeting Support/Project Management

Under this phase, Geosyntec will perform project planning and management responsibilities, such as correspondence with SWDD and FDEP, invoice review, project coordination, prepare a site-specific Health and Safety Plan, preparation of a work plan for FDEP approval for the tasks outlined in Phase 3 of this proposal and project administration. Geosyntec has also included budget for preparation and attendance (by three Geosyntec personnel) at two meetings with SWDD and/or FDEP, as needed.

Phase 2 – Database Preparation

The historical groundwater and surface water analytical data collected at both the Class I landfill and the C&D debris disposal facility is not currently in a database for long-term trend analysis which will be required to justify background demonstrations needed in the future and to address specific FDEP issues raised as summarized below.

- The FDEP comment letter dated 6 May 2020 indicated evaluation monitoring was required at 25 of the Class I landfill monitoring wells, however, when presented with an evaluation of the long-term groundwater concentration trends generated from the WACS database the requirement was reduced to 4 wells. It should be noted that the WACS database is not complete and will need to be supplemented with additional data.
- The FDEP letter dated 14 August 2020 indicated the enforcement of a groundwater standard for ammonia based upon regional surface water analytical results. In order to effectively address this FDEP comment in the future, a complete database will be needed which includes the Site and regional surface water analytical data.

To supplement the existing WACS database, groundwater and surface water data from the following sources will be integrated into a new database:

1. Baseline analytical data from initial Hydrogeologic and Geotechnical reports from both the Class I landfill and C&D debris disposal facility;
2. Biennial reports from both the Class I landfill and C&D debris disposal facility (dating back to 1978);
3. Contamination Evaluation Reports or any other Assessment Monitoring Report from both the Class I landfill and C&D debris disposal facility; and
4. Information from the STORET database from surface water and groundwater monitoring locations within a one-mile radius of the Site and all surface water monitoring locations within the Lateral C Canal between the Site and the Indian River Lagoon.

Geosyntec will have to retool most of this information from a table that was presented in a report to an electronic form (in Microsoft® Excel) that can be uploaded into this format. Geosyntec has assumed that 47 reports will need to be retooled.

The deliverable for this task will be a Microsoft® Access format of the database and two (2) figures indicating the local and regional data collection locations. The Microsoft® Access will include various queries and reports that will allow Geosyntec to perform the trend analysis on the

historical groundwater and surface water quality data. It should be noted that upon the generation of this database, it will be easier to analyze trends going forward at the Site as part of the groundwater monitoring program.

Phase 2 – C&D Debris Disposal Facility Supplemental Groundwater Assessment

Quarterly assessment is currently being performed on the eastern side of the C&D debris disposal facility to monitor conditions of groundwater and surface water to meet objectives outlined by FDEP electronic mail (e-mail) correspondence dated 10 June 2019, 22 August 2019, and 3 October 2019. A supplemental groundwater assessment is required to evaluate the groundwater conditions between the C&D debris disposal facility/RDF and the Lateral C Canal to the east. Specifically, the dimensions of the plume consisting of elevated conductivity and nutrients need to be characterized in order to assess remedial alternatives including groundwater extraction via *TreeWell* phytoremediation technology.

In order to accomplish this objective, a supplemental groundwater assessment is recommended consisting of groundwater screening followed by the installation of temporary piezometers at targeted intervals. Groundwater screening will be completed by advancing a 5-foot stainless steel slotted screen and using direct push technology (DPT) methods. The focus of the groundwater screening will span from the water table to an approximate depth of 25 feet (ft) below ground surface (bgs). Groundwater will be purged from each 5-ft interval and screened with a water quality probe capable of monitoring temperature, pH, conductivity, oxidation reduction potential (ORP) and ammonium. Turbidity will also be monitored using a turbidimeter. Each groundwater screening interval will be purged at least 3 equipment volumes until stability of field parameters is achieved per FDEP Standard Operating Procedures (SOPs) or a maximum purging period of 30 minutes. It is estimated a total of six (6) locations will be screened with the approximate locations summarized below. Locations may be adjusted based upon the results of the initial screening locations. The intent is to delineate the north/south extent of the elevated conductivity and nutrients in groundwater. Each location will be abandoned with tremie applied cement grout slurry.



Figure 1: Groundwater Screening Locations

Temporary piezometers will be installed at three (3) locations within the groundwater assessment area using hollow stem auger (HSA) methods to enable further subsequent sampling. A continuous soil sample will be collected prior to monitoring well installation and logged. Selected horizon/lithologic units will be sampled and submitted to the agronomic laboratory, ServiTech, for analysis of select soil agronomic test parameters¹ to evaluate the feasibility of the

¹ Soil agronomic parameters to be analyzed by ServiTech will include: nitrate-nitrogen, phosphorus, potassium, sulfur, calcium, magnesium, sodium, zinc, iron, manganese, copper, organic matter, soil pH, buffer pH, soluble salts, cation exchange capacity, base saturation percentage

application of engineered phytoremediation techniques as a potential remedial approach. The temporary piezometers will be constructed of 2-inch (in.) schedule (SCH) 40 poly-vinyl chloride (PVC) well materials including a 10-slot (0.001-in.) screen including a 20/30 graded silica sand filter pack, 30/65 graded silica sand seal and cement grout slurry to surface. The completion interval of the temporary piezometers will be based upon the groundwater screening results. Each temporary piezometer will be completed with an above ground protective casing and three steel bollards. Each temporary piezometer will be developed for a period of one hour either prior to grouting or at least 24 hours after grouting. Slug testing will be completed at each of the three (3) new temporary piezometers to estimate the aquifer permeability which is needed to evaluate the groundwater velocity to assess remedial alternatives including groundwater extraction via *TreeWell* phytoremediation technology.

A single round of groundwater samples will be collected from each of the three (3) new temporary piezometers for the parameters as required by paragraphs 62-701.510(5)(a) and (c), F.A.C., and will also include TN and TP. Additionally, a groundwater sample from each temporary piezometer will be submitted to ServiTech for analysis of select groundwater agronomic test parameters² to evaluate the feasibility of the application of engineered phytoremediation techniques as a potential remedial approach. The intention is to collect the temporary piezometer groundwater samples during the October 2020 quarterly C&D debris disposal facility assessment monitoring event. Any subsequent sampling at the three (3) temporary piezometers will be included in a subsequent proposal for the 2021 water-quality compliance monitoring program.

The result of the supplement groundwater assessment will be summarized in a technical memorandum which will include:

1. Summary of field methods;
2. Summary of field and analytical laboratory results;
3. Evaluation of remedial options including feasibility of groundwater extraction via *TreeWell* phytoremediation technology; and
4. Recommendation for path forward for remediation.

Geosyntec will oversee the DPT groundwater screening and HSA soil sampling and temporary piezometer installation. The subcontracted driller will be JAEE of Davie, Florida. Geosyntec

² Groundwater agronomic parameters to be analyzed by ServiTech will include: nitrate-nitrogen, chloride, sulfate-sulfur, carbonate, bicarbonate, calcium, magnesium, sodium, potassium, boron, total hardness, total dissolved solids, alkalinity, electrical conductivity, sodium adsorption ratio (SAR), adjusted SAR (SARa), sodium, % of cations, water pH, pHc, nutrients in lb/acre-foot, potassium as K20, ammonia, phosphorus as P205, total nitrogen (Calc), total phosphorus, total Kjeldahl nitrogen.

will re-install staff gauges at the surface water sampling locations LC-SW5 and LC-SW6. Peavy & Associates Survey & Mapping, PA (Peavy) will conduct a top-of-casing survey at the three (3) new evaluation monitoring wells and survey the two (2) re-installed staff gauges. Geosyntec will subcontract the field sampling activities to Ideal Technical Services (ITS). ITS is currently performing the sampling for the semi-annual compliance and quarterly assessment monitoring events at the IRCL facility. Where noted, the agronomic analytical analysis will be completed by ServiTech of Dodge City, Kansas. The other analytical testing will be conducted by ENCO Laboratories (ENCO) of Orlando, Florida, the analytical laboratory contracted with, and direct bill to, SWDD.

A work plan detailing the scope of work detailed in this task will be provided to FDEP for approval at least 45 days prior to anticipated start date of the scope of work detailed in this Task. The results of the initial temporary piezometer water-quality monitoring event will be integrated into the October 2020 quarterly assessment report for the C&D debris disposal facility and will be reported to FDEP within 60 days of receipt of analysis from the laboratory. The technical memorandum will be submitted to FDEP within 90 days of receipt of analytical data.

Geosyntec assumes the areas where the groundwater screening and temporary piezometers need to be installed will be cleared by SWDD and SWDD will provide assurance that the drilling areas are clear of subsurface utilities; otherwise, a subsurface utility survey will be performed prior to initiating work.

Phase 4 –Class I Landfill Evaluation Monitoring

The installation and sampling of four (4) evaluation monitoring wells is required per correspondence with FDEP dated 17 September 2020 as noted above. The evaluation monitoring wells must be installed at the edge of the zone of discharge (ZOD) which is located 100 ft from the edge of waste and downgradient of existing detection monitoring wells: MW-3S, MW-14S, MW-44S and MW-44I. The evaluation monitoring wells will be installed with identical construction to the detection monitoring wells where the evaluation monitoring is to occur.

The evaluation monitoring wells will be installed using HSA methods and constructed of 2-in. diameter SCH 40 PVC well materials including a 10-slot (0.001-in.) screen including a 20/30 graded silica sand filter pack, 30/65 graded silica sand seal and cement grout slurry to surface. Each evaluation monitoring well will be completed with an above ground protective casing and three steel bollards and will be developed for a period of one hour either prior to grouting or at least 24 hours after grouting.

A single round of groundwater samples will be collected initially from each of the four (4) new evaluation monitoring wells for the parameters as required by paragraphs 62-701.510(5)(a) and (c), F.A.C. It is currently planned that this sampling will be performed during the same mobilization as the October 2020 C&D debris disposal facility evaluation monitoring. Coincident with the evaluation groundwater monitoring, surface water samples will also be collected from sampling locations C5-SW1 and C5-SW3 and field screened for pH. A single sample total ammonia nitrogen (TAN) value will be calculated at each evaluation monitoring location using the average pH and temperature from the contemporaneously collected surface water samples from sampling locations C5-SW1 and C5-SW3. Subsequent rounds of quarterly evaluation groundwater monitoring for the parameters as required by paragraph 62-701.510(5)(a), F.A.C. will be completed, however, the charges associated with these events will be included in our 2021 groundwater monitoring proposal

Geosyntec will oversee the evaluation monitoring well installation. The subcontracted driller will be JAEE of Davie, Florida. Geosyntec will install a staff gauge at the surface water sampling locations C5-SW1 and C5-SW3. Peavy & Associates Survey & Mapping, PA (Peavy) will conduct a top-of-casing survey at the three (3) new evaluation monitoring wells and survey the two (2) new staff gauges. Geosyntec will subcontract the field sampling activities to Ideal Technical Services. Analytical testing will be conducted by ENCO Laboratories (ENCO) of Orlando, Florida, the analytical laboratory contracted with, and direct bill to, SWDD. The results of the October 2020 quarterly evaluation water-quality monitoring event will be reported to FDEP within 60 days of receipt of analysis from the laboratory.

Geosyntec assumes the areas where the evaluation monitoring wells need to be installed will be cleared by SWDD and SWDD will provide assurance the drilling areas are clear of subsurface utilities; otherwise, a subsurface utility survey will be performed prior to initiating work.

SCHEDULE

Geosyntec will initiate work immediately upon receipt of Notice to Proceed (NTP) from SWDD. The compliance reports required by each permit will be completed and submitted to FDEP before the deadlines discussed above. Other technical and miscellaneous permit compliance support services will be provided on an as-needed basis.

BUDGET ESTIMATE

Geosyntec proposes to perform the above-referenced work on a lump sum basis for \$134,972.70. A budget estimate for the scope of work outlined in Phases 1 through 4 of this proposal is summarized in the following table, and a detailed budget estimate is provided as Attachment 1. 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 during 2007 and 2008, and experience with compliance monitoring, and reporting at similar facilities.

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 I Landfill Evaluation Monitoring	\$36,713.00
TOTAL	\$134,972.70

Geosyntec will invoice SWDD each month of the project on a lump sum, percent complete basis in accordance with our Agreement. Additional services or any significant change in the scope of work will be performed using the Rate Schedule included in our Agreement. Geosyntec will not exceed the budget estimate without prior approval and written authorization from SWDD.

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 Dr. Badu-Tweneboah's attention. Please call either of the undersigned with questions you may have as you review this proposal.

Sincerely,



Cristina Chiera Graver, P.E.
Project Engineer



Kwasi Badu-Tweneboah, Ph.D., P.E.
Principal Engineer



Matt Wissler, P.G.
Principal Hydrogeologist



Richard Tedder, P.E.
Senior Consultant

Attachments

ATTACHMENT 1

BUDGET ESTIMATE

Table 1

BUDGET ESTIMATE
GROUNDWATER COMPLIANCE TECHNICAL SUPPORT SERVICES
CLASS I LANDFILL AND C&D DEBRIS DISPOSAL FACILITY
INDIAN RIVER COUNTY, FLORIDA

PHASE 01: General Consulting/Meeting Support/Project Management

ITEM	BASIS	RATE	QUANTITY	ESTIMATED COST
A. Professional Services				
a. Senior Principal	Hr	\$240	0	\$0.00
b. Principal	Hr	\$225	48	\$10,800.00
c. Senior Professional	Hr	\$205	0	\$0.00
d. Project Professional	Hr	\$185	50	\$9,250.00
e. Professional	Hr	\$160	0	\$0.00
f. Senior Staff Professional	Hr	\$140	0	\$0.00
g. Staff Professional	Hr	\$120	8	\$960.00
Subtotal Professional Services				\$21,010.00
B. Technical/Administrative Services				
a. Designer	Hr	\$130	0	\$0.00
b. Senior Drafter/Senior CADD Operator	Hr	\$115	0	\$0.00
c. Project Administrator	Hr	\$65	18	\$1,170.00
d. Clerical	Hr	\$50	0	\$0.00
Subtotal Technical/Administrative Services				\$1,170.00
C. Reimbursables				
a. Lodging	Day	\$100	0	\$0.00
b. Per Diem	Day	\$55	0	\$0.00
c. Communications Fee	3% Labor	\$0.03	\$22,180	\$665.40
d. CADD Computer System	Hr	\$15	0	\$0.00
e. Vehicle Rental & Fuel	Day	\$150	12	\$1,800.00
f. 8"x11" Photocopies	Each	\$0.12	500	\$60.00
g. CADD Drawings	Each	\$3	0	\$0.00
Subtotal Reimbursables				\$2,525.40
TOTAL ESTIMATED BUDGET : PHASE 01				\$24,705.40

Table 2

**BUDGET ESTIMATE
GROUNDWATER COMPLIANCE TECHNICAL SUPPORT SERVICES
CLASS I LANDFILL AND C&D DEBRIS DISPOSAL FACILITY
INDIAN RIVER COUNTY, FLORIDA**

PHASE 02: DATABASE PREPARATION

ITEM	BASIS	RATE	QUANTITY	ESTIMATED COST
A. Professional Services				
a. Senior Principal	Hr	\$240	0	\$0.00
b. Principal	Hr	\$225	8	\$1,800.00
c. Senior Professional	Hr	\$205	0	\$0.00
d. Project Professional	Hr	\$185	24	\$4,440.00
e. Professional	Hr	\$160	0	\$0.00
f. Senior Staff Professional	Hr	\$140	46	\$6,440.00
g. Staff Professional	Hr	\$120	0	\$0.00
Subtotal Professional Services				\$12,680.00
B. Technical/Administrative Services				
a. Designer	Hr	\$130	0	\$0.00
b. Senior Drafter/Senior CADD Operator	Hr	\$115	10	\$1,150.00
c. Project Administrator	Hr	\$65	0	\$0.00
d. Clerical	Hr	\$50	10	\$500.00
Subtotal Technical/Administrative Services				\$1,650.00
C. Reimbursables				
a. Vehicle Rental & Fuel	Day	\$150	0	\$0.00
b. Communications Fee	3% Labor	\$0.03	\$14,330	\$429.90
c. Lodging	Day	\$100	0	\$0.00
d. Per Diem	Day	\$55	0	\$0.00
e. CADD Computer System	Hr	\$15	0	\$0.00
f. 8"x11" Photocopies	Each	\$0.12	0	\$0.00
g. CADD Drawings	Each	\$3	0	\$0.00
h. Subcontractor	LS	\$0	1.07	\$0.00
Subtotal Reimbursables				\$429.90
TOTAL ESTIMATED BUDGET : PHASE 03				\$14,759.90

Table 3

**BUDGET ESTIMATE
GROUNDWATER COMPLIANCE TECHNICAL SUPPORT SERVICES
CLASS I LANDFILL AND C&D DEBRIS DISPOSAL FACILITY
INDIAN RIVER COUNTY, FLORIDA**

PHASE 03: C&D FACILITY SUPPLEMENTAL GROUNDWATER ASSESSMENT

ITEM	BASIS	RATE	QUANTITY	ESTIMATED COST
A. Professional Services				
a. Senior Principal	Hr	\$240	0	\$0.00
b. Principal	Hr	\$225	50	\$11,250.00
c. Senior Professional	Hr	\$205	0	\$0.00
d. Project Professional	Hr	\$185	48	\$8,880.00
e. Professional	Hr	\$160	0	\$0.00
f. Senior Staff Professional	Hr	\$140	0	\$0.00
g. Staff Professional	Hr	\$120	100	\$12,000.00
Subtotal Professional Services				\$32,130.00
B. Technical/Administrative Services				
a. Designer	Hr	\$130	10	\$1,300.00
b. Senior Drafter/Senior CADD Operator	Hr	\$115	0	\$0.00
c. Project Administrator	Hr	\$65	0	\$0.00
d. Clerical	Hr	\$50	0	\$0.00
Subtotal Technical/Administrative Services				\$1,300.00
C. Reimbursables				
a. Vehicle Rental & Fuel	Day	\$150.00	13	\$1,950.00
b. Communications Fee	3% Labor	\$0.03	\$33,430	\$1,002.90
c. Lodging	Day	\$100	13	\$1,300.00
d. Per Diem	Day	\$55	13	\$715.00
e. CADD Computer System	Hr	\$15	0	\$0.00
f. 8"x11" Photocopies	Each	\$0.12	500	\$60.00
g. CADD Drawings	Each	\$3	20	\$60.00
h. Field Supplies (WQ meter, staff gauges and supplies)	LS	\$3,000	1.07	\$3,210.00
i. Subcontractor (Ideal Technical Services)	LS	\$1,350	1.07	\$1,444.50
j. Subcontractor (Agronomic Lab)	LS	\$1,200	1.07	\$1,284.00
k. Subcontractor (Peavy)	LS	\$2,500	1.07	\$2,675.00
l. Subcontractor (JAEE)	LS	\$10,900	1.07	\$11,663.00
Subtotal Reimbursables				\$25,364.40
TOTAL ESTIMATED BUDGET : PHASE 03				\$58,794.40

Table 4

**BUDGET ESTIMATE
GROUNDWATER COMPLIANCE TECHNICAL SUPPORT SERVICES
CLASS I LANDFILL AND C&D DEBRIS DISPOSAL FACILITY
INDIAN RIVER COUNTY, FLORIDA**

PHASE 04: CLASS I LANDFILL EVALUATION MONITORING

ITEM	BASIS	RATE	QUANTITY	ESTIMATED COST
A. Professional Services				
a. Senior Principal	Hr	\$240	0	\$0.00
b. Principal	Hr	\$225	12	\$2,700.00
c. Senior Professional	Hr	\$205	0	\$0.00
d. Project Professional	Hr	\$185	30	\$5,550.00
e. Professional	Hr	\$160	0	\$0.00
f. Senior Staff Professional	Hr	\$140	0	\$0.00
g. Staff Professional	Hr	\$120	70	\$8,400.00
Subtotal Professional Services				\$16,650.00
B. Technical/Administrative Services				
a. Designer	Hr	\$130	10	\$1,300.00
b. Senior Drafter/Senior CADD Operator	Hr	\$115	0	\$0.00
c. Project Administrator	Hr	\$65	0	\$0.00
d. Clerical	Hr	\$50	0	\$0.00
Subtotal Technical/Administrative Services				\$1,300.00
C. Reimbursables				
a. Lodging	Day	\$100	2	\$200.00
b. Per Diem	Day	\$55	2	\$110.00
c. Communications Fee	3% Labor	\$0.03	\$17,950	\$538.50
d. CADD Computer System	Hr	\$15	0	\$0.00
e. Vehicle Rental & Fuel	Day	\$150	2	\$300.00
f. 8"x11" Photocopies	Each	\$0.12	500	\$60.00
g. CADD Drawings	Each	\$3	20	\$60.00
h. Field Supplies (staff gauges and supplies)	LS	\$1,000	1.07	\$1,070.00
i. Subcontractor (Ideal Technical Services)	LS	\$4,050	1.07	\$4,333.50
j. Subcontractor (JAEE)	LS	\$8,300	1.07	\$8,881.00
k. Subcontractor (Peavy)	LS	\$3,000	1.07	\$3,210.00
Subtotal Reimbursables				\$18,763.00
TOTAL ESTIMATED BUDGET : PHASE 04				\$36,713.00