



BOARD OF COUNTY COMMISSIONERS

DATE: December 14, 2010
AGENDA ITEM NO. 15

Consent Agenda ☐

Regular Agenda ☒

Public Hearing ☐

County Administrator's Signature:

Subject:

Approval of Final Agreement- Lake Seminole Sediment Removal
Contract No. 090-0271-NC (AM)

Department:

Public Works / Purchasing

Staff Member Responsible:

Pete Yauch / Joe Lauro

Recommended Action:

I RECOMMEND THE BOARD OF COUNTY COMMISSIONERS (BOARD) APPROVE THE FINAL NEGOTIATED AGREEMENT WITH BCI ENGINEERS & SCIENTISTS, INC., LAKELAND, FLORIDA FOR THE LAKE SEMINOLE SEDIMENT REMOVAL PROJECT.

IT IS FURTHER RECOMMENDED THAT AFTER PROPER EXECUTION OF THE AGREEMENT BY THE CONTRACTOR, AND AFTER WRITTEN APPROVAL AS TO FORM BY THE OFFICE OF THE COUNTY ATTORNEY, THE CHAIRMAN BE AUTHORIZED TO SIGN AND THE CLERK BE AUTHORIZED TO ATTEST.

Summary Explanation/Background:

On July 27, 2010, the Board approved the ranking of firms pertaining to a contract for the Lake Seminole sediment removal project and authorized staff to negotiate a final contract with the number one ranked firm BCI Engineers & Scientists, Inc. The firm will assist with the necessary services required for the Lake Seminole sediment removal project. The project is to be funded with assistance from the Southwest Florida Management District (SWFWMD).

A final contract has been negotiated by staff from the Engineering and Environmental Services Department and is being presented to the Board for consideration. The contract includes a negotiated scope of work for Phase 1 and Phase 2 with detailed invoices for tasks listed in the agreement. The base fees, reimbursable fees and contingency fees negotiated by staff are listed in Appendix B of the agreement.

The contract will be for a period of six (6) years from the date of execution of the agreement.

Fiscal Impact/Cost/Revenue Summary:

The cost of the agreement is \$1,127,160.00 funded in FY11-FY15 as currently scheduled.
Funding source is PID #922025
SWFWMD funding is 50%

Exhibits/Attachments Attached:

Final Negotiated Agreement

PROFESSIONAL SERVICES NON-CONTINUING SERVICES AGREEMENT

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SECTION 1
INTENT OF AGREEMENT
AGREEMENT FOR PROFESSIONAL ENGINEERING AND ENVIRONMENTAL SERVICES FOR
THE LAKE SEMINOLE DREDGING PROJECT

THIS AGREEMENT, entered into on the ____ day of _____, 20____, between PINELLAS COUNTY, a political subdivision of the State of Florida, hereinafter referred to as the COUNTY, represented by its Board of County Commissioners, and BCI Engineers and Scientists, Inc., with offices in Lakeland, Florida, hereinafter referred to as the CONSULTANT

WITNESSETH, That:

WHEREAS, Lake Seminole, a 684 acre lake in Pinellas County, Florida is negatively impacted by nuisance sediments that impair water quality, cause habitat degradation, and impede recreational uses;

WHEREAS *The Lake Seminole Watershed Management Plan* (2001) and *The Lake Seminole Reasonable Assurance Plan* (2007) recognize that the organic sediments are linked to the lake's nutrient-related impairment;

WHEREAS, the COUNTY desires the CONSULTANT provide professional environmental and engineering services requisite to the development of the Lake Seminole Dredging Project to remove the nuisance sediments, hereinafter referred to as the PROJECT; and

WHEREAS, the CONSULTANT has expressed the willingness and ability to provide the aforementioned Services; and

NOW THEREFORE, the COUNTY and the CONSULTANT, in consideration of the mutual covenants hereinafter set forth, agree as follows:

SECTION 2 SCOPE OF PROJECT

2.1 PROJECT BACKGROUND OBJECTIVES, APPROACH AND PROFESSIONAL REQUIREMENTS

For the purposes of this Agreement the term PROJECT shall include all areas of proposed improvements, all areas that may reasonably be judged to have an impact on the PROJECT, and all PROJECT development phases and the services and activities attendant thereto. It is not the intent of this Agreement to identify the exact limits or details involved in providing satisfactorily completed PROJECT construction documents. The CONSULTANT shall provide the following professional services to prepare construction plans, specifications, and complete applications for and receive all federal, state, and local permits required for construction of the PROJECT. The PROJECT design shall be based on the following data:

PROJECT BACKGROUND

Lake Seminole is a moderately large (684 acre), shallow (average depths between 4.1 and 5.5 feet) fresh water body located in west-central Pinellas County (SWFWMD 1992). It has an hourglass shape, with distinct northern and southern lobes that are connected by a narrow channel known locally as the "Narrows". The lake's approximately 3,500 acre watershed is highly urbanized, with commercial and residential land uses comprising most of the land surface. The western lake shoreline is entirely urban, consisting of mobile home parks, apartment complexes, and single family dwellings. Seawalls and docks are common and residential canal networks branch off the lake in various locations. The east shoreline has been restored to a native plant community through restoration projects undertaken in 2004 and 2008 with a few residences along the north lobe. The southeast shoreline has a large county park providing public access to the lake.

Prior to the mid-1940s Lake Seminole was an estuarine water body, the northern portion of the Long Bayou embayment of Boca Ciega Bay. It was converted to a freshwater system by the construction of a roadway (Park Boulevard) which acted as a dam. In addition to altering the lake's salinity regime from brackish to fresh, the construction of the dam and several additional hydrologic modifications in the watershed have substantially reduced its flushing rate and increased its hydraulic residence time (SWFWMD 1992).

Although concerted efforts have been made to improve stormwater treatment levels in recent years, a large proportion of the watershed was developed prior to the adoption of modern stormwater treatment requirements. As a result, the lake received discharges of untreated or minimally treated stormwater runoff from a variety of urban land uses for many decades. Prior to 1971 it also received discharges of nutrient-rich treated effluent from the City of Largo municipal wastewater treatment plant (SWFWMD 1992).

Lake Seminole is a highly eutrophic lake that is currently listed by the Florida Department of Environmental Protection (FDEP) and the U.S. Environmental Protection Agency (USEPA) as an impaired waterbody pursuant to Section 303(d) of the federal Clean Water Act. The pollutants linked to the impairment are nutrients (primarily phosphorus forms) that are present at elevated levels in the lake's water column and sediments. Nitrogen forms are also present in the lake at elevated levels, but in freshwater lakes these are more likely to be a result rather than a primary cause of excessive eutrophication (e.g., Schindler et al. 2008).

In accordance with USEPA reporting guidelines, impaired waters can be classified as either Category 4 or Category 5 waters. Category 5 waters are those for which at least one designated use (DU) is not being supported or is threatened, and a Total Maximum Daily Load (TMDL) is needed. Category 4 waters are those for which at least one designated use (DU) is not being supported or is threatened, but a TMDL is not needed. Waters can be classified in Category 4 with approval of USEPA if they fall into one of three subcategories; Category 4a, 4b, or 4c. Category 4b includes those waters for which a TMDL is not needed because other pollution control requirements are expected to result in the attainment of an

applicable water quality standard (WQS) in a reasonable period of time. On a state level, the Florida Watershed Restoration Act (Section 403.067(4)) explicitly allows FDEP to list impaired waters in Category 4 rather than Category 5.

Lake Seminole's listing as a Category 4b water has been approved by both the USEPA and FDEP based on the Lake Seminole Reasonable Assurance Plan (RAP) (2007) and supporting documents, which provides a framework for addressing the Lake Seminole impairment. The Lake Seminole Sediment Removal Project (PROJECT) is an important element of the Lake Seminole RAP. The primary purpose of the PROJECT is to remove nutrient rich ("muck") sediments present within the lake basin that have been linked to its nutrient-related impairment (e.g., SWFWMD 1992).

PROJECT OBJECTIVES

Pinellas County (COUNTY) has selected BCI Engineers and Scientists, Inc. (CONSULTANT) to accomplish the PROJECT objectives outlined in the COUNTY's Request for Professional Services dated April 23, 2010 (RFP) which specifies assistance with the logistical, analytical, design, permitting, and administrative support services associated the removal, processing, and disposal of nuisance, nutrient rich sediments from within Lake Seminole which have degraded water quality and lake habitats. The Lake Seminole Watershed Management Plan (WMP) (2001), the state and federally approved RAP, and the Lake Seminole Sediment Removal Feasibility Study (2006) estimate that there are approximately 1 million cubic yards of sediments in the lake.

PROJECT APPROACH

The PROJECT will be organized in two general phases as outlined in the RFP. Phase 1 of the PROJECT generally consists of design and permitting related tasks. Phase 2 of the PROJECT generally consists of PROJECT implementation related tasks. As noted in the RFP, CEI related tasks are not included in this scope of work.

The work to be performed by the CONSULTANT to accomplish the PROJECT objectives is described by task in Section 4.0 "Phase 1 - Scope of Work" and Section 5.0 "Phase 2 – Scope of Work" below. Section 6.0 "Optional Scope of Work Items" includes scope items that could potentially be required but will not be confirmed until additional information is developed through completion of various Phase 1 efforts. Task efforts will be executed in an adaptive phased manner to assure that PROJECT activities are necessary and carried out in the most efficient manner possible. As such, the task efforts described in the following sections are indicative of the foreseeable efforts that may be necessary during the course of the PROJECT. Scope changes including substitutions, clarifications, and additions of optional scope items will be requested by the CONSULTANT and will require approval by the COUNTY prior to initiation.

2.2 PROJECT TASKS

The CONSULTANT will complete the PROJECT Tasks as described below. Specific services related to each task to be provided are described in Section 3.

- Task 1 – Preliminary Design (Phase 1)
- Task 2 – Project Design and Permitting (Phase 1)
- Task 3 – Final Design (Phase 1)
- Task 4 – Project Management (Phase 1)
- Task 5 – Project Bid (Phase 2)
- Task 6 – Construction Operational Oversight and Technical Guidance (Phase 2)

2.3 CONSULTING RESPONSIBILITIES

- A. It is the intention of the COUNTY that the CONSULTANT is held accountable for its work, including checking and review of plans, and that submittals are complete.
- B. The CONSULTANT shall be responsible for the accuracy of the work and shall promptly correct its errors and omissions without additional compensation. Acceptance of the work by the COUNTY will not relieve the CONSULTANT of the responsibility for subsequent correction of any errors and the clarification of any ambiguities.
- C. The CONSULTANT represents that it has secured or will secure, at its own expense, all personnel necessary to complete this Agreement; none of whom shall be employees of or have any contractual relationship with the COUNTY. Primary liaison with the COUNTY will be through the CONSULTANT'S Project Manager. All of the services required hereunder will be performed by the CONSULTANT or under the CONSULTANT'S supervision, and all personnel engaged in the work shall be fully qualified and shall be authorized or permitted under law to perform such services.
- D. The CONSULTANT shall endorse all reports, calculations, contract plans, and survey data. Services shall be prepared under the direction of an engineer registered in the State of Florida and qualified in the required discipline. Products or services performed or checked shall be signed and sealed by the CONSULTANT'S Florida registered engineer.
- E. The CONSULTANT shall be responsible for the preparation of a PROJECT design schedule, which shows a breakdown of all tasks to be performed, and their relationship in achieving the completion of each phase of work. A bar chart schedule showing overall PROJECT time frames should also be prepared. These schedules must be submitted for COUNTY approval within ten (10) days of the initial PROJECT Notice to Proceed. These schedules will be used to verify CONSULTANT performance in relationship to Fees claimed and to allow the COUNTY'S Project Manager to monitor the CONSULTANT'S efforts. The CONSULTANT shall be responsible for any updates to these schedules and for documenting in writing to the COUNTY any major deviations in the actual versus estimated PROJECT time frames.
- F. The CONSULTANT shall respond, in writing, to all review comments made by the COUNTY, and shall incorporate appropriate design adjustments into the PROJECT, in a timely manner, resulting from the review exchange.

2.4 GENERAL DESIGN CONDITIONS

2.4.1 The CONSULTANT shall coordinate and solicit appropriate input, with the knowledge of the COUNTY.

2.4.2 All design data, plans, and drawings shall be delivered electronically or on CD ROM formatted to .DXF or .DWG utilizing Land Desktop Civil 3D; as well as providing reproducible hard copies of plans and drawings as specified in Section 3. All specifications, reports and other documents shall be delivered electronically or via CD ROM, Windows Office 2003 format, as well as the reproducible hard copies. All GIS data shall be delivered electronically or on CD ROM as ESRI formatted work products.

2.4.3 The number of copies of all deliverables is specified in Section 3.

2.4.4 The CONSULTANT shall develop acceptable alternates to any and all design recommendations that may be declared unacceptable.

2.5 GOVERNING SPECIFICATIONS REGULATIONS AND PERTINENT DOCUMENTS

The PROJECT shall be designed by the CONSULTANT in accordance with applicable industry standards. The CONSULTANT shall be responsible for utilizing and maintaining current knowledge of any laws, ordinances, codes, rules, regulations, standards, guidelines, special conditions, specifications, or other mandates relevant to the PROJECT or the services to be performed.

SECTION 3 SERVICES TO BE FURNISHED BY THE CONSULTANT

3.1 PHASE I AND 2 SCOPE OF WORK

TASK 1: PRELIMINARY DESIGN (PHASE 1) OVERVIEW

The CONSULTANT will review the existing project related data, perform field reconnaissance of the lake and adjacent areas to confirm existing site conditions and assess potential sites for upland spoil containment and project staging. The CONSULTANT will determine additional surveying, sampling, and other data collection needs necessary to prepare a preliminary design for the PROJECT. The CONSULTANT will perform the needed sampling, survey, and data collection efforts. The CONSULTANT will assess the data collected under this task and develop a preliminary design recommendations report which will include a summary of the available data and a description of conceptual recommendations for PROJECT design. This task will include evaluation of the Largo Landfill for project staging and as the final disposal site for sediments removed from the lake. Subtasks associated with this effort are discussed in detail in the following sections.

1.1 Existing Data Review, Field Reconnaissance, and Data Needs Assessment

1.1.1 Existing Data Review: The CONSULTANT will review existing data related to the PROJECT to assess past work efforts, refine the work plan for subsequent tasks and services, and collect pertinent existing data to be used in preparing the PROJECT preliminary design recommendations report. The review will be performed in a forward-looking manner and will be considerate of future design needs, potential environmental constraints, permitting requirements, stakeholder concerns, project implementation implications, cost estimate needs, and schedule implications. The review will specifically include evaluation of the following data sources along with an initial pre-application conference with regulatory agencies.

- Lake Seminole Watershed Management Plan (PBS&J 2001)
- Lake Seminole Sediment Removal Feasibility Study (PBS&J 2006)
- Lake Seminole Reasonable Assurance Plan
- Lake Seminole Sediment Characterization and Analysis (Schelske 1991)
- Lake Seminole Sediment Characterization Study (BCI 1997)
- Largo Landfill Reports (various)
- Historic Aerials
- Lake Seminole Diagnostic Feasibility Study (SWFWMD 1992)
- Ambient Monitoring Program Data for Lake Seminole
- State and Federal permitting rules and guidance documents
- Other relevant information as directed by the COUNTY.

1.1.2 Field Reconnaissance: Based on the review of existing data, the CONSULTANT will perform cursory field reconnaissance activities of the lake, surrounding areas, the Largo Landfill site, and other potential staging and disposal sites as available and at the direction of the COUNTY. Reconnaissance activities will be directed toward establishing the general needs for additional data and site information which will be collected and refined in subsequent tasks. Field reconnaissance will focus on gaining a general understanding of various project aspects such as the presence of ecological resources, potential staging areas, sediment disposal site options, the spatial distribution of sediments, municipal infrastructure, and implementation concerns such as potential pipeline routing options, return water options, etc.

1.1.3 Additional Data Needs Assessment: Based on the review of existing information and field reconnaissance results, the CONSULTANT will determine needs for additional survey work, sediment sampling and characterization, evaluation of subsurface conditions associated with potential sediment disposal and dewatering plant sites, and ecological resources such as wildlife and vegetative communities. The evaluation will include an assessment of available methods and technologies for obtaining the required information with respect to cost, schedule, and benefits. Based on the

CONSULTANT's current understanding of the available existing information and the length of time that has passed since its collection, the following types of additional / updated data will be required to be collected and developed during the course of the PROJECT and will serve as the general basis for the assessment activities conducted as part of this subtask.

- General survey (structure locations and dimensions, etc.)
- Lake bathymetry
- Spatial and volumetric delineation of sediments
- Physical properties of sediments
- Chemical properties of sediments and elutriate
- Settling characteristics of sediments
- Polymer studies
- Return water quality associated with potential dewatering methods
- Subsurface conditions for disposal and staging sites
- Ecological resources
- Permitting requirements

The effort described above is intended to establish a starting point for the project. Data needs will continue to be assessed throughout the project. These assessments will be integrated with subsequent task efforts as the project progresses toward completion.

1.1.4 Deliverables: The CONSULTANT will prepare a project status memorandum which will summarize the data review, field reconnaissance, and additional data needs assessment activities conducted under this task. The memo will include a compilation of the data collected in the CONSULTANT's review of existing data and specification of details regarding proposed methods to obtain additional data. The CONSULTANT will provide up to four hard copies and up to four electronic copies (pdf format) of the status memo to the COUNTY.

TASK 1.2 SURVEYING, MAPPING, AND SAMPLING

The CONSULTANT will provide land and hydrographic surveying services as needed to accomplish the PROJECT objectives. Surveys will be performed in accordance with the standards of the Pinellas County Land Survey Division unless otherwise agreed upon in advance by the COUNTY or otherwise specified in this Scope of Work. For certain types of data, the Engineer of Record for the PROJECT may determine that field measurements using handheld GPS equipment or aerial interpretations may be of sufficient accuracy to accommodate design needs. This determination will be made in accordance with generally accepted engineering practice and regulatory standards. Topographic data will be based on SWFWMD LiDAR datasets for the PROJECT area with field truthing in areas where evidence of dense vegetative cover or development and/or disturbance post-dating the effective date of the LiDAR dataset is evident based on field and/or desktop reconnaissance efforts.

1.2.1 Land Surveys: Up to one week of land survey using real time kinematic (RTK) GPS equipment is anticipated to collect various types of information such as the locations, elevations, and dimensions of features of interest such as hydraulic structures, bridges, utilities, etc. The CONSULTANT's Scope of Work does not include any survey work associated with marine structures such as docks and seawalls as the PROJECT specifically excludes work in and around these types of features. Where necessary these types of features will be located via aerial interpretation and buffered appropriately to determine work limits associated with the PROJECT.

Horizontal precision for the PROJECT shall conform to the Federal Geographic Data Committee, Geospatial Positioning Accuracy Standards – Part 4: Standards for A/E/C and Facility Management (FGDC-STD-007.4-2002), Second-Order, Class 1. Vertical accuracy shall conform to FGDC-STD-007.4-2002 standards for Second-Order, Class II elevation difference accuracy standards for relative positioning techniques. Horizontal data will be referenced to the State Plane Coordinate System, Florida West Zone, North American Datum of 1983 (NAD83). Vertical data will be referenced to the North American Vertical Datum of 1988 (NAVD88).

1.2.2 Hydrographic Surveys: Survey of the lake bathymetry along with the location of the top and bottom of sediments will be accomplished through the co-utilization of sonar and ground penetrating radar (GPR) survey methods. Hydrographic surveys will be conducted along transects spaced approximately 200 ft. apart and extending 2,000 ft +/- across the width of the lake, resulting in approximately 85 transects in total. Sonar and GPR data will be verified at selected locations by calibrated pole sounding and Vibecore Plexiglas tube sampling. Up to 170 pole soundings and up to 50 Vibecore samples will be taken throughout the project extents. Differential global positioning (DGPS) will be used to navigate along pre-determined transect lines and record the position and depth simultaneously. Data will be collected as outlined in the U.S. Army Corps of Engineers manual EM 1110-2-1003 – Engineering and Design, HYDROGRAPHIC SURVEYING.

1.2.3 Volumetric Calculations: Hydrographic survey data will be compiled and interpolated to develop top and bottom of sediment surface models using the AutoCAD Civil 3D software package. The resulting surfaces will be utilized to develop sediment thickness maps and estimates of sediment volumes. The results of this effort will be used as the basis for subsequent sampling and project design efforts.

1.2.4 Sediment Sampling: Sediment cores will be collected at up to 48 locations (either from Vibecore samples from Task 1.2.2 when possible or under separate effort) distributed through Lake Seminole in accordance with FDEP SOP 4000, with a greater density of sampling in areas with relatively thick accumulations of organic sediments. At locations where organic sediments are more than 5 feet thick or where distinct differences in characteristics are apparent through visual examination, core samples will be "split" into separate samples prior to analysis. Sediment samples will extend up to 5 feet below the presumed sediment surface to facilitate definition of the natural lake bottom and composited to produce up to 8 samples for laboratory characterization of the post dredging lake bottom.

As previously noted, up to 48 sediment samples are anticipated in this effort. This quantity results in a volumetric representation of the presumed sediment body (based on the 2006 Feasibility Study) that would be equivalent to approximately 2 to 3 week increments of dredging in the implementation phase. This quantity is necessary to adequately define the variability in characteristics that would be expected to occur in the dewatering process such that the various unit processes that will be considered in the design of the dewatering process can be evaluated. The actual number of samples collected will be determined upon review of the results of the hydrographic survey and the sediment samples collected as part of that subtask. Where appropriate, verification samples from the hydrographic survey will be utilized in lieu of separate sampling collection efforts.

1.2.5 Deliverables: Survey data will be provided digitally and on hard copy maps in AutoCAD format (up to four copies of each format will be provided). The survey map set will include a plan view map, cross sections illustrating the tops and bottoms of sediments, and an isopach map illustrating the spatial distribution of sediment thicknesses. A map of additional sample locations will also be provided along with graphic depictions of the sediment cores. The total surveyed sediment volume will be calculated and noted within the map set.

TASK 1.3 PHYSICAL AND CHEMICAL CHARACTERIZATION

The CONSULTANT will perform physical and chemical characterization analyses to develop the data required to support the project design and permitting efforts. There are several distinct objectives of the sediment testing and characterization program:

Determine physical characteristics of sediments and lake bottom materials (overcut) that affect dredging operations and dredged materials management such as mechanical separation, dewatering, and disposal.

Determine chemical characteristics of sediments that can indicate which sediments have the greatest detrimental effect on Lake Seminole trophic status – these analyses emphasize nutrient chemistry and will be used to assess various sediment removal alternatives and the benefits of the overall project.

Determine chemical characteristics that affect how the dredged material will be managed at disposal. These analyses will consider compliance with FDEP Soil Cleanup Target Levels (SCTLs) for direct residential exposure and potential impacts to pre-existing conditions at the Largo Landfill.

Determine chemical characteristics that affect the in-lake dredging operations, dewatering operations, and upland disposal of sediments in terms of compliance with groundwater and surface water standards. These analyses will include determination of toxicity of sediment elutriates with and without treatment by flocculating agents (polymers) that may be used in the dewatering process.

Physical and chemical characterization analyses for up to 56 samples, or sample composites, collected under Task 1.2. will be conducted as described in the following sections. Where possible, samples will be composited to reduce the overall level of analytical effort associated with the project. Based on existing information regarding the spatial distribution of sediments and variability in characteristics, up to 8 composites samples are anticipated for analysis for select properties / characteristics.

Analyses will be conducted in one or more NELAC certified labs following appropriate FDEP SOPs.

1.3.1 Physical Characterizations: The CONSULTANT will conduct the following analyses to determine physical characteristics of the sediment samples collected under Task 1.2.

- Moisture content (up to 56 analyses, 48 raw sediment samples and 8 lake bottom composites)
- Solids content (up to 56 analyses, 48 raw sediment samples and 8 lake bottom composites)
- Organic content (up to 56 analyses, 48 raw sediment samples and 8 lake bottom composites)
- Specific gravity (up to 72 analyses, 48 raw sediment samples plus coarse and fine fraction composites [up to 8 each] and lake bottom composites [up to 8 each])
- Mechanical gradation analysis (up to 56 analyses, 48 raw sediment samples and 8 lake bottom composites)
- 30 Day Settling Test (up to 8 composite analyses, fine fraction)
- Atterberg Limits (up to 24 composite analyses, fines, coarse, and combined fractions)
- Hydrometer analysis (gradation of -200 mesh material) (up to 24 composite analyses)
- One-Dimensional Consolidation Testing (up to 24 composite analyses, fines)

The above analyses will be conducted on up to 56 unprocessed sediment samples and various derivative composite samples as noted above.

1.3.2 Nutrient Characterizations: The CONSULTANT will conduct up to 56 analyses (48 sediment samples plus 8 lake bottom sample composites) to determine the following nutrient characteristics of the sampled sediments.

- Total phosphorous (up to 56 analyses)
- Phosphorous speciation (phosphorous fractions associated with saloid, aluminum-bound, iron-bound and calcium-bound fractions). This speciation allows an evaluation of the availability of phosphorus in lake sediments and provides additional information on potential for internal recycling of phosphorus in the water column. (up to 56 analyses)
- Total nitrogen (up to 56 analyses)
- Nitrate nitrite nitrogen (up to 56 analyses)
- Total Kjeldahl Nitrogen (TKN) (up to 56 analyses)
- Ammonium nitrogen (up to 56 analyses)

1.3.3 Chemical Contaminant Characterizations: The available data indicates that the lake sediments are non-hazardous, and can be managed in an upland disposal facility in the watershed. However, past characterization of Lake Seminole sediments has been limited to analysis of metals and leachable metals. Lake Seminole sediments have not been analyzed for other potentially hazardous constituents such as pesticides, PCBs, or semivolatile organic compounds, nor has the leachability of constituents been measured using either the Synthetic Precipitation Leaching Procedure (SPLP) or the Toxicity Characteristic Leaching Procedure (TCLP). These analyses are necessary to determine; (1) the contamination characteristics of the dredged sediments with respect to various regulatory threshold values such as the FDEP Soil Cleanup Target Levels (SCTLs), (2) the likely in-lake water quality during dredging at the point of dredging, (3) the likely quality of the water(s) released during dewatering and disposal, and (4) the long term potential for mobilization of contaminants via leaching at the disposal site.

Additionally, the available information does not indicate that the sediments are likely to be contaminated for hazardous organic chemicals, but sufficient testing has not been performed to permit the dredging and dredged materials management operations.

To address the above data needs, the CONSULTANT will conduct analyses on up to 16 sediment samples (fine and coarse fractions of up to 8 sediment composites), eight sediment elutriate samples, and up to 16 sediment leachate samples (SPLP or TCLP). Additionally, the Largo Landfill site may be contaminated, which could confound identification of impacts from the dredged material management operation. To address this concern, the CONSULTANT will conduct analyses on up to 8 landfill soil leachate samples. The following classes of analytes will be examined.

- Metals (Aluminum, Arsenic, Barium, Cadmium, Chromium, Copper, Iron, Lead, Mercury, Nickel, Selenium, Silver, Zinc)
- Polynuclear aromatic hydrocarbons (PAHs),
- Organochlorine pesticides (OCPs), and
- Polychlorinated biphenyls (PCBs).

Surface water bodies potentially affected by the disposal site and dredging activities will also be sampled and characterized for comparison. Additionally, elutriates will be subjected to chronic toxicity testing using two characteristic freshwater organisms (*Ceriodaphnia dubia* and *Pimephales promelas*) before and after treatment with one or more selected polymers to be used in the dewatering process.

The specific analytical testing regime to be used in this effort will be confirmed in consultation with regulatory review staff.

1.3.4 Deliverables: The results of the various characterization efforts described in this task will be summarized in a brief report which will include maps depicting sampling locations and comparative tables containing analytical results and applicable standards. Lab reports will be included as appendices to the report. Up to four hard copies and four electronic copies of the report will be submitted to the County.

TASK 1.4 GEOPHYSICAL AND GEOTECHNICAL SITE INVESTIGATIONS

The CONSULTANT will conduct geophysical and geotechnical investigations of the Largo Landfill site to assess subsurface conditions and to develop design parameters to be used in subsequent design of the dewatering and disposal facilities for the PROJECT. This task will build on the CONSULTANT's knowledge of site conditions and fill in information gaps identified in Task 1.1. The efforts described in this task will focus primarily on a +/- 20-acre portion of the Largo Landfill site. The exact extent of the investigation will be refined prior to initiation of this task based on data and information gathered under other tasks in this Scope of Work and through consultation with the COUNTY and other PROJECT stakeholders.

1.41 Geophysical Testing: A preliminary screening of the site will be conducted by the CONSULTANT using ground penetrating radar (GPR) and or electrical resistivity survey techniques to identify the potential extent and character of historic landfill activities such as the extent of cover, locations and orientation of fill-trenches, the general depth and location of refuse, and subsurface anomalies. The results of this effort will be utilized to guide the development of subsequent boring plans and in the ultimate design of the dredged material management area.

1.42 Geotechnical Investigation: The CONSULTANT will utilize a combination of Standard Penetration Test (SPT) borings, auger borings, and bulk sampling to gain an understanding of subsurface conditions and to obtain samples for laboratory testing efforts. Up to 5 temporary piezometers will be installed and monitored to document water levels within the surficial aquifer in the proposed work areas. The laboratory testing program on selected soil samples obtained from the borings and bulk sampling program will include testing for index properties, compaction characteristics, and shear strength. The following site investigation items are proposed.

- Auger Borings (up to 20 @ 20' Deep)
- SPT Borings (up to 15 @ 50' Deep)

- Temporary 2" Piezometer (up to 5 @ 30' Deep)
- Double Ring Infiltration Test (up to 3 tests)
- Shelby Tube Samples (up to 4)
- The proposed laboratory testing program will include the following tests performed on material collected as part of the geotechnical site investigation in support of geotechnical design elements.
 - Natural Moisture Content (up to 150)
 - Percent Passing No. 200 (up to 135)
 - Organic Content (up to 20)
 - Modified Proctor Compaction (up to 3)
 - Gradation Analysis (includes #200 Sieve) (up to 15)
 - Constant Head Permeability (up to 5)
 - Hydrometer (up to 10)
 - Atterberg Limits (up to 5)
 - Triaxial - CU with Pore Pressure (up to 3)

1.4.2 Deliverables: The CONSULTANT will summarize the results of the field investigation and laboratory testing program in a preliminary report for review by the COUNTY and incorporation into subsequent project tasks. The report will include summary tables of results, maps showing the locations of field activities, and interpretations of results with respect to subsequent design tasks. Up to four hard copies and up to four electronic copies of the report will be prepared for submitted to the COUNTY.

TASK 1.5 - TASK 1 SUMMARY AND PRELIMINARY DESIGN RECOMMENDATIONS REPORT

The CONSULTANT will prepare a summary report based on the information developed in Tasks 1.1 through 1.4. The report will included conceptual descriptions of up to three design alternatives to be considered for further evaluation in subsequent design tasks. This report will form the basis for the final pre-application meeting to be held with FDEP and the ACOE.

TASK 2 - PROJECT DESIGN AND PERMITTING (PHASE 1)

The CONSULTANT will provide design and permitting services for the PROJECT based on Phase 1, Task 1 review comments provided by the COUNTY and reviewing stakeholders. The design effort will include engineering, survey, environmental, biological, GIS, public interaction, and technical support tasks necessary to acquire permits and to develop plans and technical specifications for the PROJECT. Subtasks associated with this task are described in the following sections.

TASK 2.1 DREDGING AND PROCESS DESIGN

The PROJECT design will be developed in an iterative manner to ensure that the final design is optimized with respect to the PROJECT objectives. The design will build on the summary report from Task 1 and will consider feedback from the COUNTY and stakeholders for refinement and development of additional design details at the 30%, 60%, and 90% milestones. The various design components that will be developed by the CONSULTANT are described in the following sections. This task will be summarized in a design report prepared under Task 2.7 and in the engineering plan set prepared under Task 2.5.

2.1.1 Prioritization of Sediment Laden Areas: The CONSULTANT will evaluate the various chemical and physical sediment attributes developed in Phase 1, Task 1 with respect to contaminant levels, achievement of water quality improvement goals, processing and disposal characteristics, resource impacts, and their spatial distribution with respect to project costs and efficiencies to arrive at a prioritized

list of sediment laden areas for inclusion in the PROJECT. Ranking criteria will be developed with feedback from the COUNTY and will be updated at the 30%, 60%, and 90% design milestones.

2.1.2 Evaluation of Sediment Characteristics, Volumes, and Material Balance: The CONSULTANT will evaluate the overall volumes, thicknesses, and spatial distribution of sediments targeted for removal from the lake. This evaluation will include an analysis of the variability of various physical and processing characteristics of the sediments. The purpose of this evaluation is to define the overall range and frequency of occurrence of operating conditions for consideration in design of dredging, dewatering, and disposal aspects of the PROJECT. Specific factors that will be evaluated include:

- In-situ percent solids
- Bulk density
- Organics content
- Fines content and corresponding coarse fraction content
- Anticipated overcut volume

As part of this task, the CONSULTANT will develop an overall material balance for the project for utilization in the planning and design of the disposal facility. This task will be updated to reflect design refinements at the 30%, 60%, and 90% design milestones.

2.1.3 Definition of Dredging Operations Parameters: Dredging operations parameters will be defined based on the results of subtask 2.1.3 and the overall PROJECT schedule. Various operating schedules (hours per day / days per week) will be evaluated considering typical mechanical availabilities and various operating factors such as start up and shutdown periods, scheduled maintenance needs, etc. to arrive at performance based standards for the combined dredging and pumping systems. The dredging operations design will consider downstream processes such as pumping systems, dewatering systems, disposal implications, and other considerations such as impacts to residents and local ordinance requirements. This task will be updated to reflect design refinements at the 30%, 60%, and 90% design milestones.

2.1.4 Dredge and Pumping System Design: The CONSULTANT will develop design details for dredging and pumping systems. Design elements will include pipeline routes, booster pump locations, pumping distances, pumping system head requirements, suggested pipeline sizes, suggested pump specifications, suggested dredge specifications, navigational maintenance requirements, and public safety specifications (signage, pipeline crossings, etc.), and measures to protect water quality and other natural resources within the lake and adjacent areas. This task will be updated to reflect design refinements at the 30%, 60%, and 90% design milestones.

2.1.5 Design of Dewatering and Disposal Operations: The CONSULTANT will develop performance based design details for dewatering and disposal operations. Specifications will include mass balance designation of operating ranges for various unit operations including separation of the coarse and fines fractions, dewatering of fine and coarse sediment fractions, polymer dosage rates, supernatant handling requirements, etc. This task will include specification of the general nature of the dewatering process and disposal site limitations and will include recommendations regarding equipment types and configurations. In order to provide reasonable assurance for permitting purposes, dewatering and disposal specifications will be modeled after demonstrated technologies.

The CONSULTANT will consider up to two alternate technologies for size separation, dewatering, and disposal in addition to the recommended process design specified in the 2006 feasibility study at the 30% design milestone. The number of alternatives will be reduced to no more than two alternatives at the 60% design milestone. A single design alternative will be included at the 90% design milestone.

TASK 2.2 GEOTECHNICAL DESIGN - DISPOSAL AREA AND FOUNDATIONS

The CONSULTANT will provide geotechnical design services for earthen structures associated with the disposal of dredged materials, foundations associated with dewatering operations, and operating specifications associated with the placement and loading of materials at the disposal site. The services provided under this task will utilize subsurface condition information collected under Task 1.4 and 90% design information from Task 2.1. Services under this task will be conducted with regard to a single disposal site candidate. Unless otherwise determined in tasks subsequent to Task 2.2, the disposal and dewatering site for the PROJECT will be the Largo Landfill property located immediately north of the lake. The CONSULTANT will summarize the Task 2.2 design components in a report to the COUNTY under Task 2.7 below and in the engineering plan set under Task 2.5.

2.2.1 Disposal Area Design: The disposal area will be designed to contain pre-thickened dredged materials and will consider affects of the PROJECT to underlying landfill materials and groundwater conditions. Depending on the final methods of dewatering and disposal chosen, the disposal area design may include perimeter dikes constructed around the perimeter of the disposal site to contain materials and to control both surface water runoff and water released from the dredge sediments. The disposal area design will comply with the applicable requirements of Chapter 62-701 F.A.C., the FDEP guidance document titled "Guidance for Disturbance and Use of Old Closed Landfills or Waste Disposal Areas in FL", and other review criteria developed in consultation with the State Dam Safety Officer and permit reviewers. Specific evaluations included in this task include the following.

- Determination of the overall size and configuration of the dewatering and disposal site.
- Analysis of freeboard requirements.
- Development of design cross sections for containment berms.
- Analysis of seepage through containment berms and underlying landfill materials.
- Evaluation of stability of embankment cross sections
- Design of geosynthetic systems such as liners, caps, and underdrain / collection systems.
- Closure details
- Intake/outlet structure design

2.2.2 Structure Foundations: The CONSULTANT will evaluate foundation conditions and provide recommendations for structural loading within an approximately 5-acre site adjacent to the disposal site. Evaluations and recommendations will also be provided for access roads and parking areas.

TASK 2.3 STORM AND SEDIMENT WATER MANAGEMENT DESIGN

The CONSULTANT will design surface water treatment facilities to handle stormwater generated at the disposal site and at the dewatering plant site based on the 90% design milestone of Task 2.1. The facilities are also anticipated to be designed to handle the containment and treatment of water(s) generated from the continued dewatering of dredged sediments post disposal (water(s) generated as an immediate consequence of the defined "dewatering" process will be handled separately under Task 2.1).

The CONSULTANT's design will address water management and treatment needs at the disposal area and dewatering plant site during the PROJECT implementation phase and under long-term post implementation conditions.

Task 2.3 deliverables will include a Stormwater Management Plan to be included in 90% design report to be provided to the COUNTY under Task 2.7. The stormwater management plan will include stormwater calculations for the 25 year- 24 hour design storm as well as storm water quality calculations. Design details will be included in the plan set prepared under Task 2.5.

2.3.1 Implementation Phase Conditions: As a result of modifications to the site associated with construction of the disposal area and dewatering plant coupled with the proposed site activities, a stormwater management facility (SMF) will be required for the combined disposal area and dewatering plant site footprint. The proposed peak discharge rate for a 25 year- 24 hour design storm will be limited to the existing peak rate that currently discharges from the footprint. In addition to the stormwater runoff volume, it is anticipated that additional water associated with the continued dewatering of sediments after placement at the disposal site will be generated and co-mingled with stormwater. The CONSULTANT will design the implementation phase SMF to handle the combined stormwater/sediment-dewatering volume to meet current open basin design criteria for an Environmental Resource Permit (ERP).

2.3.2 Post-PROJECT Conditions: Upon completion of the PROJECT, the dewatering plant and associated infrastructure will be decommissioned and the combined disposal / dewatering site footprint will be returned to a land use to be designated in the course of designing the overall PROJECT. The CONSULTANT will design a post-PROJECT SMF (or modify the design of the implementation phase SMF) to provide treatment of the post-PROJECT stormwater runoff volume to current presumptive stormwater quality best management practice design criteria as codified in ERP regulations.

TASK 2.4 RESOURCE IMPACTS ASSESSMENT

Upon completion of the Task 1, the sites which will be potentially impacted by the project will be evaluated to determine and quantify potential primary and secondary impacts to natural and cultural resources. Evaluations will be conducted using a combination of desktop and field methods.

2.4.1 Desktop Evaluations: The CONSULTANT will complete a desktop evaluation of the potential PROJECT impacts consisting of assemblage and analysis of readily available information such as soil surveys, topographic maps, landuse / landcover maps, the Florida Natural Areas Inventory (FNAI), aerial photography, etc. This task will also include consultation with the State Historic Preservation Office to determine if any significant cultural resources exist within the project area. This scope of work does not include any potential Phase II investigations of cultural resources based on the fact that neither County staff nor any of the members of BCI's team are aware of listed resources within the presumed project area.

2.4.2 Field Assessments: The results of the desktop evaluation will be used to direct field survey efforts as required. Using existing studies and anecdotal information as a guide, the CONSULTANT anticipates that field efforts will consist primarily of identification of and location of threatened and endangered species within and adjacent to the project boundary, baseline surveys of emergent and submerged aquatic vegetation, and delineation of potential wetland impacts that may occur (primarily along pipeline corridors and the processing and disposal site).

As indicated by desktop evaluations, the presence of threatened and endangered species within the project footprint will be confirmed in the field using appropriate procedures and methodologies. Relevant information such as habitat extents, nests, etc. will be located using hand held GPS equipment. As appropriate, field conditions and observations will be photo documented. This subtask will also include preparation of management plans as appropriate.

Submerged aquatic vegetation will be surveyed using a methodology appropriate to field conditions and agreed upon by permitting agencies in the pre-application meeting(s). The location and extent of vegetative communities within and adjacent to potential impact sites will be mapped using handheld GPS equipment.

This information will be utilized in the Task 2.1 to assist in ranking the various spatially grouped sediment removal area options. Each spatially distinct area will be assessed using the Uniform Mitigation Assessment Method (UMAM) to determine a general understanding of the types and quantities of mitigation that might be associated for each distinct sediment laden area and in support of permitting requirements such as identification of compensatory mitigation plans.

2.4.3 Deliverables: A summary report will be prepared which describes the results of the natural and cultural resources assessment. The report will include verbal descriptions of methodologies, results, conclusions, and recommendations. Field mapping conducted as part of this subtask will be presented as a series of maps and figures. Up to four hard copies of the report and four electronic copies of the report will be provided.

TASK 2.5 PROJECT PLANS

The CONSULTANT will prepare project plans for permitting and construction purposes. The plan set will include the following items at a minimum and will comply with Pinellas County Public Works Department standards unless otherwise determined and agree to by the COUNTY.

- Cover sheet and index (1 sheet)
- General construction notes and specifications (up to 5 sheets)
- Project location (1 sheet)
- Bathymetric survey details (up to 6 sheets)
- Sediment mapping details (up to 6 sheets)
- Plan and profile details of proposed dredging activities (up to 20 sheets)
- Locations of natural and cultural resources (up to 6 sheets)
- Site plans (pipelines, staging areas, dewatering and disposal areas, stormwater details, utilities, etc.) (up to 25 sheets)
- Construction details for the disposal and dewatering plant (up to 10 sheets)
- Compensatory mitigation details (up to 6 sheets)
- Typical details (up to 4 sheets)

Plans will be scaled appropriately for full size plotting on 22x34" paper. Plans will be developed / updated at the 30%, 60%, and 90% design milestones. Up to four 11x17" hard copies of the plan set will

be provided to the County at each of the designated milestones along with up to four electronic copies in pdf format.

TASK 2.6 COST ESTIMATES

The CONSULTANT will prepare estimated costs for the PROJECT at the 60% and 90% design milestones. The estimates will be based on costs from similar projects, budgetary quotes from vendors and contractors, and published regional construction cost data. Cost estimates will be summarized in the design report to be provided to the COUNTY under Task 2.7 below.

TASK 2.7 DESIGN REPORT

The CONSULTANT will prepare a PROJECT design report at the 30%, 60%, and 90% design milestones. The report will consist of detailed descriptions of the various tasks completed through Phase 1 - Task 2 of the PROJECT including summaries and interpretations of the data collected and developed by the CONSULTANT. The report along with the plan set from Task 2.5 will provide the majority of the supporting information necessary for the preparation of permit applications for the PROJECT. Up to four hard copies and four electronic copies of the report will be provided to the COUNTY at each of the 3 design milestones.

TASK 2.8 PERMITTING

The general assumption for this project is that the dredging and disposal activities will require regulatory approvals from both the Florida Department of Environmental Protection (FDEP) and the U. S. Army Corps of Engineers (ACOE). At a minimum, it is anticipated that an Environmental Resource Permit (ERP) and authorization for sovereign submerged lands from FDEP will be required along with a standard individual permit through the ACOE. It is also possible that utilization of the Largo Landfill will require a separate Solid Waste Management Facility (SWMF) permit through FDEP. This determination will be dependent on sediment characteristics and is expected to be made during review of the ERP application by FDEP staff. Costs associated with the SWMF permit are included separately under the contingency items section of this Scope of Work (Section 4).

2.8.1 Agency Communication and Coordination: In addition to the initial pre-application meeting(s) conducted in Task 1, the CONSULTANT's permitting team will meet with agency staff for a final "pre-application" meeting(s) to confirm the overall permitting strategy and establish the general submittal requirements in terms of information, assurances, and design details. This meeting will form the basis for subsequent design and application preparation efforts. Additionally, to ensure that the overall permitting process is conducted as efficiently as possible, pre-submittal meetings will be conducted prior to submittal of initial permit applications and responses to agency RAIs.

In total, up to 8 agency meetings are anticipated throughout the permitting process. Due to the multi-disciplinary nature of the project, these meetings will be attended by the team's lead engineers and scientists associated with each discipline along with representatives from the COUNTY and appropriate staff from regulatory agencies.

2.8.2 Permit Applications and RAI Responses: The CONSULTANT will prepare permit application materials, including supporting documentation, which is expected to consist primarily of the project plan set and design report prepared in Tasks 2.5 and 2.7. This task will entail preparation of the joint FDEP ERP (standard general) / FDEP Authorization to Use State Owned Submerged Lands / ACOE Dredge and Fill (standard individual) application.

Due to the potential complexity of this project as related to the utilization of the Largo Landfill and recent regulatory / political scrutiny of similar projects, the scope and budget for this project includes preparation of up to 6 RAI response documents (3 FDEP ERP, and 3 ACOE).

Additionally, the CONSULTANT will coordinate permitting efforts across the various disciplines / team members. Examples of the types of coordination required include formulation and communication of various application preparation requirements, tracking of regulatory time schedules, review, coordination, and assignment of tasks associated with agency RAIs, maintenance of electronic files, etc.

The scope and budget for this subtask does not include payment of application fees which are assumed to be provided by the COUNTY independent of this Scope of Work.

2.8.3 Deliverables: Up to four hard copies of the permit submittals and RAI responses will be provided to the COUNTY along with up to four electronic copies in pdf format (draft for review and final). Five hard copies of each permit submittal and RAI response will be provided for agency review.

TASK 2.9 PUBLIC OUTREACH

2.9.1 Website Communications: The CONSULTANT will work with the COUNTY to update the Pinellas Water Atlas and County Lake Seminole website with project information, project updates, background on the dredging project, and notices of any upcoming public meetings. Updates are expected to occur at major project milestones (up to 13 updates). The CONSULTANT will submit posting information to the County for approval before any updates to the web pages. If desired, the CONSULTANT can create a Twitter account or Facebook page for the PROJECT to further engage homeowners and stakeholders on developments during both the design phase and dredging process.

2.9.2 Public Meeting: The CONSULTANT will organize and host a town hall-style public meeting for interested stakeholders to gather feedback regarding the project design. The CONSULTANT will provide an agenda, signage for the workshop, notices, promotion, and equipment for any presentations. The CONSULTANT will work with the COUNTY to determine the best time, date, and location.

TASK 3 - FINAL DESIGN (PHASE 1 AND 2)

Upon receipt of the permit approvals necessary for the PROJECT, the CONSULTANT will provide final plans and technical specifications for the PROJECT along with updated probable costs for the PROJECT.

TASK 3.1 FINAL PLANS

The CONSULTANT will revise the PROJECT plan set to incorporate any changes to the PROJECT that occurred during the permitting process. The CONSULTANT will provide up to four hard copies of the final plan set (one 22x34" and three 11x17") and up to four electronic copies of the final plan set to the COUNTY. The plan set will be signed and sealed by the appropriate Professional Engineer (or Professional Geologist as appropriate) of record for preparation of the design elements.

TASK 3.2 FINAL SPECIFICATIONS

The CONSULTANT will revise the PROJECT design report to incorporate any changes to the PROJECT that occurred during the permitting process. The CONSULTANT will also prepare technical

specifications for the PROJECT based on the final plan set, design report, and permit conditions. Up to four hardcopies of the final design report and technical specifications will be provided to the COUNTY along with up to four electronic copies of the design report and technical specifications.

TASK 3.3 FINAL ESTIMATES OF PROBABLE COSTS

The CONSULTANT will prepare probable costs for the PROJECT based on the final design and permit conditions. The estimate will be based on costs from similar projects, budgetary quotes from vendors and contractors, and published regional construction cost data. The cost estimate will be provided as part of the final design report to be provided to the COUNTY under Task 3.2 above.

TASK 4 - PROJECT MANAGEMENT (PHASE 1)

The CONSULTANT will provide project management services throughout Phase 1 of the PROJECT consisting of written status reports, routine project meetings, general communications and coordination, and preparation of project invoices with supporting documentation as described in the following sections.

TASK 4.1 STATUS REPORTS

The CONSULTANT will prepare and submit monthly status reports to the COUNTY through completion of Phase 1 of the project which will include the following items.

- Written summary of the monthly accomplishments
- Identification of action items
- Schedule updates
- Summary of the financial aspects of the project in the form of an earned value assessment of project spending and progress

Status reports will be provided electronically unless otherwise requested by the COUNTY.

TASK 4.2 PROJECT MEETINGS AND GENERAL COMMUNICATIONS

The CONSULTANT will coordinate up to six project update meetings with the COUNTY and stakeholders at the following Phase 1 project milestones.

- Tasks 1.1 through 1.4 completion
- Task 2.7 - 30% Design
- Task 2.7 - 60% Design
- Task 2.7 - 90% Design
- Task 2.8 - Permitting
- Task 3 - Final Design

In addition to the above, routine weekly phone conversations, emails, and go-to meetings are anticipated to be required to facilitate communication between the CONSULTANT, the COUNTY, and stakeholders.

TASK 5.0 - PHASE 2 SCOPE OF WORK

TASK 5.1 - PROJECT BID (PHASE 2)

The CONSULTANT will assist the COUNTY in conducting a pre-bid meeting for the PROJECT and in preparing responses to contractor's questions regarding the PROJECT design and specifications. The CONSULTANT will assist the COUNTY with the tabulation and evaluation of bids.

TASK 5.2 - CONSTRUCTION OPERATIONAL OVERSIGHT AND TECHNICAL GUIDANCE (PHASE 2)

The CONSULTANT will assist the COUNTY with general operational oversight and technical guidance with respect to the implementation of the project design and compliance with project specifications. As part of this task, the BCI team will provide the following services.

- Construction observations and documentation of critical milestones in the project implementation.
- Consultation regarding technical specifications, performance standards, and project plans.
- Review of shop drawings.
- Verification of compliance with the project design and performance standards.

In providing the above services, the CONSULTANT will coordinate weekly construction meetings, conduct site visits, perform final verification of completion of project objectives, and participate in a pre and post construction meeting with the contractor and the COUNTY.

3.2 PROVISIONS RELATED TO ALL PHASES

3.2.1 The CONSULTANT will investigate and confirm in writing to the COUNTY, to the best of the CONSULTANT'S knowledge, conformance with all applicable local public and utility regulations.

3.2.2 The CONSULTANT will coordinate work designed by various disciplines.

3.2.3 The CONSULTANT shall submit to the COUNTY design notes and computations to document the design conclusions reached during the development of the construction plans.

a. When the plans are submitted for final review, the design notes and computations corrected for any COUNTY comments shall be resubmitted. At the PROJECT completion, a final set of the design notes and computations, properly endorsed by the CONSULTANT, shall be submitted with the record set of plans.

b. The design notes and calculations shall include, but not be limited to, the following data:

- 1) Design criteria used for the PROJECT.
- 2) Structural calculations.
- 3) Drainage calculations.

- 4) Geotechnical investigations and evaluations.
- 5) Material processing calculations
- 6) Calculations showing probable cost comparisons of various alternatives considered.
- 7) Documentation of decisions reached resulting from meetings, telephone conversations or site visits.
- 8) Other PROJECT-related correspondences as appropriate.

3.2.4 Each set of plans for the PROJECT shall be accurate, legible, complete in design, suitable for bidding purposes and drawn to scales acceptable to the COUNTY. The completed plans shall be furnished on reproducible material and in a format, which is acceptable to the COUNTY.

3.2.5 The COUNTY in no way obligates itself to check the CONSULTANT'S work and further is not responsible for maintaining project schedules.

3.2.6 Other CONSULTANT responsibilities shall be as listed below:

- a. Provide necessary sealed drawings to obtain building permits or any utility permit.
- b. Assist the COUNTY in Contractor claims and/or litigation.
- c. Review the Adequacy and completeness of documents submitted by the Contractor to protect the COUNTY against claims by suppliers or third parties.

3.2.7 The CONSULTANT must be familiar with the intent, thoroughness, safety factors and design assumptions of all structural calculations.

3.2.8 All work prepared and/or submitted shall be reviewed and checked by a CONSULTANT (Engineer) registered in Florida. All plans shall be signed and sealed by the Professional CONSULTANT in responsible charge.

3.3 COORDINATION WITH UTILITY SERVICES AND AFFECTED PUBLIC AGENCIES

3.3.1 The requirements of the various utility services shall be recognized and properly coordinated with the PROJECT design.

3.3.2 Drainage investigations and drainage design shall be coordinated with any city or drainage district that may be affected by or have an effect on the PROJECT.

SECTION 4 SERVICES TO BE FURNISHED BY THE COUNTY

4.1 The COUNTY shall provide the following for the CONSULTANT'S use and guidance:

- A. Copies of existing maps, existing aerial photographs, as-built construction plans and all data pertinent to the PROJECT design, which the COUNTY may have in its possession.
- B. Reproduces of the COUNTY Engineering Department Standard Drawings applicable to the PROJECT.
- C. Sample copies of the COUNTY standard contract documents and specifications.

D. Preparation of legal (front-end) section of the specifications.

SECTION 5 PRESENTATIONS, PUBLIC MEETINGS AND TECHNICAL LIAISON

The following services shall be provided at no additional cost to the COUNTY:

5.1 Prior to the commencement of PROJECT activities, the COUNTY will conduct with the CONSULTANT a PROJECT kick-off for the purpose of discussing issues relative to the PROJECT, plans preparation, and submittal procedures and to convey to the CONSULTANT such items provided for under Section 4 as may be required and available at that time.

5.2 The CONSULTANT shall make presentations to the COUNTY'S Director of Engineering and Environmental Services or designee as often as reasonably requested and at any point in the PROJECT development should issues arise which make additional presentations other than those listed elsewhere in this Agreement, in the COUNTY'S best interest.

5.3 The CONSULTANT shall participate in PROJECT Conferences with COUNTY staff personnel. The meetings will be scheduled by the COUNTY at a location provided by the COUNTY.

5.4 The CONSULTANT shall attend, as technical advisor to the COUNTY all meetings or hearings conducted by permitting agencies or public bodies in connection with any permit required for the construction of the PROJECT, and shall prepare all presentation aids, documents and data required in connection with such meetings or hearings, and at the discretion of the COUNTY, shall either plead the COUNTY'S case or provide engineering and technical assistance to the COUNTY in its pleading of the case.

5.5 The CONSULTANT shall keep accurate minutes of all meetings and distribute copies to all attending. These meetings shall be set up through the COUNTY and appropriate COUNTY staff shall attend.

SECTION 6 PAYMENT GUIDELINES AND CATEGORY OF SERVICES

6.1 BASIC SERVICES

The services described and provided for under Sections 2, 3 and 4 shall constitute the Basic Services to be performed by the CONSULTANT under this Agreement.

6.2 CONTINGENCY SERVICES

When authorized in writing by the COUNTY'S Director of Engineering and Environmental Services or designee, the CONSULTANT shall furnish services resulting from unforeseen circumstances not anticipated under Basic Services due to minor changes in the PROJECT scope.

Compensation for any Contingency Services assignments shall be negotiated between the COUNTY and the CONSULTANT at the time the need for services becomes known as shown in Appendix A.

6.3 ADDITIONAL SERVICES

When executed by the Board of County Commissioners as an amendment to this Agreement, the CONSULTANT shall provide such additional services as may become necessary because of changes in the Scope of PROJECT. Additional Services shall be classified as any change beyond the Contingency Services upset limit for compensation.

6.4 INVOICING

The CONSULTANT may submit invoices for fees earned on a monthly basis. Such invoicing shall be supported by a Progress Report showing the actual tasks performed and their relationship to the percentage of fee claimed for each phase. Billings within each phase of work shall be for the percentage of work effort completed to date for that phase. The COUNTY shall make payments to the CONSULTANT for work performed in accordance with the Local Government Prompt Payment Act, Section 218.70 et. seq., F.S.

The following services shall be considered reimbursable services and may be filled in full upon their completion and acceptance. The CONSULTANT shall provide copies of supporting receipts/invoices/billing documentation. Self-performed reimbursable work shall be reimbursed at the firm's standard hourly rates for all related services. A breakdown of man hours and billing rates shall be provided with each invoice. An hourly rate sheet is attached (Exhibit A).

- A. Soil Analysis/Geotechnical Investigations/Survey
- B. Contamination Assessments/Hazardous Material Analysis (if required).
- C. Aerial Photography (if required).
- D. Payment of Permit Fees (if required).
- E. Payment of the Public Information Meeting Advertisements (if required).
- F. Payment of the Court Reporter for public meetings (if required).
- G. Printing, Plotting, and Binding Services.
- H. Vehicle Mileage
- I. Equipment Fees Including Boats, GPS, and GPR
- J. Laboratory Analysis Fees

Should an invoiced amount for fees earned appear to exceed the work effort believed to be completed, the COUNTY may, prior to processing of the invoice for payment, require the CONSULTANT to submit satisfactory evidence to support the invoice.

All progress reports and invoices shall be mailed to the attention of Kelli Hammer Levy, Pinellas County Watershed Management, 300 South Garden Ave., Clearwater, FL 33756.

Invoices not properly prepared (mathematical errors, billing not reflecting actual work done, any signature, etc.) shall be returned to the CONSULTANT for correction.

Fees for contingent or additional services authorized shall be invoiced separately, and shall be due and payable in full upon the presentation of satisfactory evidence that the corresponding services have been performed.

Any and all disputes regarding invoices shall be resolved by the Dispute Resolution for Pinellas County Board of County Commissioners in Matters of Invoice Payments.

SECTION 7
COMPENSATION TO THE CONSULTANT

7.1 For the BASIC SERVICES provided for in this Agreement, as defined in Section 3.10, the COUNTY agrees to pay the CONSULTANT as follows:

- A Lump Sum Fee of: Sixteen Thousand Seven Hundred and Thirty Seven Dollars (\$16,737) for Task 1.1 Existing Data Review, Field Reconnaissance, and Data Needs Assessment.
- A Lump Sum Fee of: Thirty Thousand Two Hundred and Twenty Five Dollars (\$30,225) for Task 1.2 Surveying, Mapping, and Sampling.
- A Lump Sum Fee of: Twenty Two Thousand Four Hundred and Ninety Dollars (\$22,490) for Task 1.3 Physical and Chemical Characterization
- A Lump Sum Fee of: Forty Thousand Five Hundred and Thirteen Dollars (\$40,513) for Task 1.4 Geophysical and Geotechnical Site Investigations
- A Lump Sum Fee of: Seven Thousand One Hundred and Sixteen Dollars (\$7,116) for Task 1.5 Task 1 Summary and Preliminary Design Recommendations Report.
- A Lump Sum Fee of: Forty Five Thousand and Fifty Eight Dollars (\$45,058) for Task 2.1 Dredging and Process Design.
- A Lump Sum Fee of: Forty Five Thousand Three Hundred Dollars (\$45,300) for Task 2.2 Geotechnical Design – Disposal Area and Foundations.
- A Lump Sum Fee of: Twenty Thousand Eight Hundred and Seventy Four Dollars (\$20,874) for Task 2.3 Storm and Sediment Water Management Design
- A Lump Sum Fee of: Twenty Two Thousand Seven Hundred and Seventy Eight Dollars (\$22,778) for Task 2.4 Resource Impacts Assessment
- A Lump Sum Fee of: Ninety Thousand Two Hundred and Eighty Dollars (\$90,280) for Task 2.5 Project Plans.
- A Lump Sum Fee of: Nine Thousand Five Hundred and Forty Two Dollars (\$9,542) for Task 2.6 Cost Estimates
- A Lump Sum Fee of: Twenty Four Thousand and Fifty Four Dollars (\$24,054) for Task 2.7 Design Report.
- A Lump Sum Fee of: Fifty Thousand Nine Hundred and Four Dollars (\$50,904) for Task 2.8 Permitting.
- A Lump Sum Fee of: Fourteen Thousand One Hundred and Six Dollars (\$14,106) for Task 2.9 Public Outreach.
- A Lump Sum Fee of: Twenty One Thousand Six Hundred and Twenty Dollars (\$21,620) for Task 3 Final Design (PHASE I).
- A Lump Sum Fee of: Twenty Five Thousand Seven Hundred and Fourteen Dollars (\$25,714) for Task 4 Project Management (PHASE I).
- A Lump Sum Fee of: Nine Thousand Eight Hundred and Sixty Eight Dollars (\$9,868) for Task 5 Project Bid (PHASE 2).

A Lump Sum Fee of: Seventy Nine Thousand Nine Hundred and Twelve Dollars (\$79,912) for Task 6 Construction Oversight and Technical Guidance (PHASE 2).

The above fees shall constitute the total not to exceed amount of Five Hundred and Sixty Four Thousand Four Hundred and Ninety Nine Dollars (\$564,499) for performance of the Basic Services.

7.2 For Basic reimbursable services as listed in Section 6, the COUNTY agrees to reimburse the CONSULTANT for actual costs up to an amount not to exceed Two Hundred and Forty Six Thousand Two Hundred and Ninety Seven Dollars (\$246,297).

7.3 For any CONTINGENCY SERVICES performed, the COUNTY agrees to pay the CONSULTANT, a negotiated fee based on the assignment, up to a maximum amount not to exceed Three Hundred and Sixteen Thousand Three Hundred and Sixty Four Dollars (\$316,364) for all assignments performed.

7.4 Total amount of tasks related to this Agreement amount to One Million One Hundred and Twenty Seven Thousand One Hundred and Sixty Dollars (\$1,127,160). The Consultant shall only be compensated for completed tasks.

7.5 For any ADDITIONAL SERVICES, the COUNTY agrees to pay the CONSULTANT a negotiated total fee based on the work to be performed as detailed by a written amendment to this Agreement.

7.6 In the event that this Agreement is terminated under the provisions of this contract the total and complete compensation due the CONSULTANT shall be as established by the COUNTY based on the COUNTY'S determination of the percentage of work effort completed to date of termination.

SECTION 8 PERFORMANCE SCHEDULE

Time is of the essence in this Agreement. The CONSULTANT shall plan and execute the performance of all services provided for in this Agreement in such manner as to ensure their proper and timely completion in accordance with the following schedule:

8.1 The services to be rendered by the CONSULTANT shall be commenced upon receipt from the COUNTY of written "NOTICE TO PROCEED."

8.2 The Task 1 Summary and Preliminary Design Recommendations Report submittal shall be submitted to the COUNTY by June 30, 2011.

8.3 The Final Design shall be submitted to the COUNTY by December 31, 2012.

8.4 The Final Plans, Technical Specifications, and Bid Documents shall be submitted to the County by May 1, 2013.

8.5 The CONSULTANT shall not be held responsible for delays in the completion of the PROJECT design when the COUNTY causes such delays. The COUNTY reviews related to the above submittals shall not exceed twenty-one (21) days.

SECTION 9 AUTHORIZATION FOR CONTINGENT OR ADDITIONAL SERVICES

9.1 The CONTINGENCY services provided for under this Agreement shall be performed only upon prior written authorization from the Director of Engineering and Environmental Services or designee.

9.2 The ADDITIONAL services provided for under this Agreement shall be performed only upon approval of the Board of County Commissioners.

9.3 The CONSULTANT shall perform no services contemplated to merit compensation beyond that provided for in this Agreement unless such services, and compensation therefore, shall be provided for by appropriate written authorization or amendment(s) to this Agreement.

SECTION 10 FIRMS AND INDIVIDUALS PROVIDING SUBCONSULTING SERVICES

The COUNTY reserves the right to review the qualifications of any and all subconsultants, and to reject any subconsultant in a proper and timely manner, deemed not qualified to perform the services for which it shall have been engaged.

SECTION 11 SATISFACTORY PERFORMANCE

All services to be provided by the CONSULTANT under the provisions of this Agreement, including services to be provided by subcontractors, shall be performed to the reasonable satisfaction of the COUNTY'S Director of Director of Engineering and Environmental Services or designee.

SECTION 12 RESOLUTION OF DISAGREEMENTS

12.1 The COUNTY shall reasonably decide all questions and disputes, of any nature whatsoever, that may arise in the execution and fulfillment of the services provided for under this Agreement.

12.2 The decision of the COUNTY upon all claims, questions, disputes and conflicts shall be final and conclusive, and shall be binding upon all parties to this Agreement, subject to judicial review.

SECTION 13 CONSULTANT'S ACCOUNTING RECORDS

13.1 Records of expenses pertaining to all services performed shall be kept in accordance with generally accepted accounting principles and procedures.

13.2 The CONSULTANT'S records shall be open to inspection and subject to examination, audit, and/or reproduction during normal working hours by the COUNTY'S agent or authorized representative to the extent necessary to adequately permit evaluation and verification of any invoices, payments or claims submitted by the CONSULTANT or any of his payees pursuant to the execution of the Agreement. These records shall include, but not be limited to, accounting records, written policies and procedures, subcontractor files (including proposals of successful and unsuccessful bidders), original estimates, estimating worksheets, correspondence, change order files (including documentation covering negotiated settlements), and any other supporting evidence necessary to substantiate charges related to this Agreement. They shall also include, but not be limited to, those records necessary to evaluate and verify direct and indirect costs (including overhead allocations) as they may apply to costs associated with this Agreement. The COUNTY shall not audit payroll and expense records on task assignments paid by lump sum fee.

13.3 For the purpose of such audits, inspections, examinations and evaluations, the COUNTY'S agent or authorized representative shall have access to said records from the effective date of the Agreement, for the duration of work, and until three (3) years after the date of final payment by the COUNTY to the CONSULTANT pursuant to this Agreement.

13.4 The COUNTY'S agent or authorized representative shall have access to the CONSULTANT'S facilities and all necessary records in order to conduct audits in compliance with this Section. The COUNTY'S agent or authorized representative shall give the CONSULTANT reasonable advance notice of intended inspections, examinations, and/or audits.

SECTION 14 OWNERSHIP OF PROJECT DOCUMENTS

Upon completion or termination of this Agreement, all records, documents, tracings, plans, specifications, maps, evaluations, reports and other technical data, other than working papers, prepared or developed by the CONSULTANT under this Agreement shall be delivered to and become the property of the COUNTY. The CONSULTANT, at its own expense, may retain copies for its files and internal use. The COUNTY shall not reuse any design plans or specifications to construct another project at the same or a different location without the CONSULTANT'S specific written verification, adaptation or approval.

SECTION 15 INSURANCE COVERAGE AND INDEMNIFICATION

15.1 The CONSULTANT shall procure, pay for and maintain at least the following insurance coverages and limits. Said insurance shall be evidenced by delivery to the COUNTY of one (1) certificate of insurance executed by the insurers listing coverages and limits, expiration dates and terms of policies and all endorsements whether or not required by the COUNTY, and listing all carriers issuing said policies; and (2) upon request, a certified copy of each policy including all endorsements. The insurance requirements shall remain in effect throughout the term of the Agreement.

15.1.1 Workers' compensation in at least the Limits as required by law; Employers' Liability Insurance of not less than \$100,000 for each accident.

15.1.2 Comprehensive General Liability Insurance including, but not limited to, Independent Contractor, Contractual, Premises-Operations, and Personal Injury covering the liability assumed under indemnification provisions of this Agreement, with limits of liability for personal injury and/or bodily injury, including death of not less than \$1,000,000, each occurrence; and property damage of not less than \$100,000, each occurrence. (Combined Single Limits of not less than \$500,000, each occurrence, will be acceptable unless otherwise stated). Coverage shall be on an "occurrence" basis, and the policy shall include Broad Form Property Damage coverage of not less than \$50,000 per occurrence, unless otherwise stated by exception herein.

15.1.3 Professional Liability Insurance (including Errors and Omissions) with minimum limits of \$1,000,000 per occurrence, if occurrence form is available; or claims made form with "tail coverage" extending three (3) years beyond completion and acceptance of the PROJECT with proof of "tail coverage" to be submitted with the invoice for final payment. In lieu of "tail coverage," CONSULTANT may submit annually to the COUNTY a current Certificate of Insurance proving claims made insurance remains in force throughout the same three (3) year period.

15.1.4 Comprehensive Automobile and Truck liability covering owned, hired and non-owned vehicles with minimum limits of \$500,000 each occurrence for bodily injury including death, and property damage of not less than \$100,000, each occurrence. (Combined Single Limits of not less than \$500,000 each occurrence, will be acceptable unless otherwise stated). Coverage shall be on an "occurrence" basis, such insurance to include coverage for loading and unloading hazards.

15.2 Each insurance policy shall include the following conditions by endorsement to the policy:

15.2.1 Each policy shall require that thirty (30) days prior to expiration, cancellation, non-renewal or any material change in coverages or limits, a notice thereof shall be given to COUNTY by certified mail to: Director of Engineering and Environmental Services and the Director of Risk

Management at 400 South Ft. Harrison Avenue, Clearwater, FL, 33756. CONSULTANT shall also notify COUNTY, in a like manner, within twenty-four (24) hours after receipt, of any notices of expiration, cancellation, non-renewal or material change in coverage received by said CONSULTANT from its insurer; and nothing contained herein shall absolve CONSULTANT of this requirement to provide notice.

15.2.2 Companies issuing the insurance policy, or policies, shall have no recourse against COUNTY for payment of premiums or assessments for any deductibles which all are at the sole responsibility and risk of CONSULTANT.

15.2.3 The term COUNTY in this Section 15 shall include the Board of County Commissioners, all its members, its officers, and employees while acting on behalf of Pinellas County.

15.2.4 Pinellas County shall be endorsed to the required policy or policies as an additional insured, exclusive of Professional Liability Insurance and Workers' Compensation Insurance.

15.2.5 The policy clause "Other Insurance" shall not apply to any insurance coverage currently held by COUNTY to any such future coverage, or to COUNTY'S Self-Insured Retentions of whatever nature.

The CONSULTANT hereby waives subrogation rights for loss or damage against the COUNTY.

15.3 To the maximum extent permitted by Florida law, the CONSULTANT shall defend, indemnify and hold harmless the COUNTY, its officers and employees from any and all liabilities, claims, damages, penalties, demands, judgments, actions, proceedings, losses or costs, including, but not limited to, reasonable attorneys' fees and paralegals' fees, or by, or on account of, any claim or amounts recovered under the "Workers' Compensation Law" or of any other laws, by-laws, ordinance, order or decree, except only such injury or damage as shall have been occasioned by the sole negligence of the COUNTY, whether resulting from any claimed breach of this Agreement by the CONSULTANT or from personal injury, property damage, direct or consequential damages, or economic loss, to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of the CONSULTANT or anyone employed or utilized by the CONSULTANT in the performance of this Agreement.

The duty to defend under this Article is independent and separate from the duty to indemnify, and the duty to defend exists regardless of any ultimate liability of the CONSULTANT, the COUNTY and any indemnified party. The duty to defend arises immediately upon presentation of a claim by any party and written notice of such claim being provided to the CONSULTANT. The CONSULTANT'S obligation to indemnify and defend under this Article will survive the expiration or earlier termination of this Agreement until it is determined by final judgment that an action against the COUNTY or an indemnified party for the matter indemnified hereunder is fully and finally barred by the applicable statute of limitations.

SECTION 16 EQUAL EMPLOYMENT OPPORTUNITY CLAUSE FOR CONTRACTS NOT SUBJECT TO EXECUTIVE ORDER 11246

In carrying out the contract, the CONSULTANT shall not discriminate against employee or applicant for employment because of race, color, religion, sex or national origin.

SECTION 17 INDEPENDENT CONTRACTOR STATUS AND COMPLIANCE WITH THE IMMIGRATION REFORM AND CONTROL ACT OF 1986

CONSULTANT acknowledges that it is functioning as an independent contractor in performing under the terms of this Agreement, and it is not acting as an employee of COUNTY. CONSULTANT acknowledges that it is responsible for complying with the provisions of the Immigration Reform and Control Act of 1986, located at 8 U.S.C. Section 1324, et seq., and regulations relating thereto. Failure to

comply with the above provisions of this contract shall be considered a material breach and shall be grounds for immediate termination of the contract.

SECTION 18 PROHIBITION AGAINST CONTINGENT FEE

The CONSULTANT warrants that he has not employed or retained any company or person, other than a bona fide employee working solely for the CONSULTANT to solicit or secure this Agreement, and that he has not paid or agreed to pay any person, company, corporation, individual, or firm other than a bona fide employee working solely for the CONSULTANT, any fee, commission, percentage, gift or any other consideration, contingent upon or resulting from the award or making of this Agreement.

SECTION 19 TRUTH IN NEGOTIATIONS

By execution of this Agreement, the CONSULTANT certifies to truth-in-negotiations and that wage rates and other factual unit costs supporting the compensation are accurate, complete and current at the time of contracting. Further, the original contract amount and any additions thereto shall be adjusted to exclude any significant sums where the COUNTY determines the contract price was increased due to inaccurate, incomplete or non-current wage rates and other factual unit costs. Such adjustments must be made within one (1) year following the end of the contract.

SECTION 20 SUCCESSORS AND ASSIGNS

The CONSULTANT shall not assign, sublet, or transfer his interest in this Agreement without the written consent of the COUNTY.

SECTION 21 INTEREST ON JUDGMENTS

In the event of any disputes between the parties to this Agreement, including without limitation thereto, their assignees and/or assigns, arising out of or relating in any way to this Agreement, which results in litigation and a subsequent judgment, award or decree against either party, it is agreed that any entitlement to post judgment interest, to either party and/or their attorneys, shall be fixed by the proper court at the rate of five percent (5%), per annum, simple interest. Under no circumstances shall either party be entitled to pre-judgment interest. The parties expressly acknowledge and, to the extent allowed by law, hereby opt out of any provision of federal or state statute not in agreement with this paragraph.

SECTION 22 TERMINATION OF AGREEMENT

22.1 The COUNTY reserves the right to cancel this Agreement, without cause, by giving thirty (30) days prior written notice to the CONSULTANT of the intention to cancel. Failure of the CONSULTANT to fulfill or abide by any of the terms or conditions specified shall be considered a material breach of contract and shall be cause for immediate termination of the contract at the discretion of COUNTY. Alternatively, at the COUNTY'S discretion, the COUNTY may provide to CONSULTANT thirty (30) days to cure the breach. Where notice of breach and opportunity to cure is given, and CONSULTANT fails to cure the breach within the time provided for cure, COUNTY reserves the right to treat the notice of breach as notice of intent to cancel the Agreement for convenience.

22.2 If COUNTY terminates the Agreement for convenience, other than where the CONSULTANT breaches the Agreement, the CONSULTANT'S recovery against the COUNTY shall be limited to that portion of the CONSULTANT'S compensation earned through date of termination, together with any costs reasonably incurred by the CONSULTANT that are directly attributable to the termination. The

CONSULTANT shall not be entitled to any further recovery against the COUNTY, including but not limited to anticipated fees or profit on work not required to be performed.

22.3 Upon termination, the CONSULTANT shall deliver to the COUNTY all original papers, records, documents, drawings, models, and other material set forth and described in this Agreement.

22.4 In the event that conditions arise, such as lack of available funds, which in the COUNTY'S opinion make it advisable and in the public interest to terminate this Agreement, it may do so upon written notice.

SECTION 23 AGREEMENT TERM

This Agreement will become effective on the date of execution first written above and shall remain in effect for six (6) years, unless terminated at an earlier date under other provisions of this Agreement, or unless extended for a longer term by amendment.

SECTION 24 CONFLICT OF INTEREST

24.1 By accepting award of this Contract, the CONSULTANT, which shall include its directors, officers and employees, represents that it presently has no interest in and shall acquire no interest in any business or activity which would conflict in any manner with the performance of services required hereunder, including as described in the CONSULTANT'S own professional ethical requirements. An interest in a business or activity which shall be deemed a conflict includes but is not limited to direct financial interest in any of the material and equipment manufacturers suppliers, distributors, or contractors who will be eligible to supply material and equipment for the PROJECT for which the CONSULTANT is furnishing its services required hereunder.

24.2 If, in the sole discretion of the County Administrator or designee, a conflict of interest is deemed to exist or arise during the term of the contract, the County Administrator or designee may cancel this contract, effective upon the date so stated in the Written Notice of Cancellation, without penalty to the COUNTY.

SECTION 25 ENTIRE AGREEMENT

This Agreement represents, together with the RFP, Addenda, the proposer's response any exhibits, the entire written Agreement between the COUNTY and the CONSULTANT and may be amended only by written instrument signed by both the COUNTY and the CONSULTANT.

SECTION 26 PUBLIC ENTITY CRIMES

The CONSULTANT is directed to the Florida Public Entity Crimes Act, Section 287.133, Florida Statutes, specifically section 2(a), and the COUNTY'S requirement that the CONSULTANT comply with it in all respects prior to and during the term of the Contract.

**SECTION 27
GOVERNING LAW AND AGREEMENT EXECUTION**

This Agreement shall be governed by the laws of the State of Florida.

IN WITNESS WHEREOF, the parties herein have executed this Agreement as of the day and year first written above.

Firm Name

PINELLAS COUNTY, by and through its Board of
County Commissioners

By: _____
Print Name: _____
Title: _____ Date: _____

By: _____
Chairman Date: _____

ATTEST:

ATTEST:
Ken Burke, Clerk of the Circuit Court

By: _____
Print Name: _____
Title: _____ Date: _____

By: _____
Deputy Clerk Date: _____

(CORPORATE SEAL)

APPROVAL AS TO FORM:

By: Michelle Wallace
Office of the County Attorney

APPENDIX A CONTINGENCY SCOPE OF WORK ITEMS TO BE FURNISHED BY THE CONSULTANT

TASK C1.0 - CONTINGENCY SCOPE OF WORK ITEMS

The CONSULTANT will provide the following additional services upon demonstration of PROJECT need and written authorization by the COUNTY.

TASK C1.1 - SURVEYING, MAPPING, AND SAMPLING

The CONSULTANT will provide up to one week of additional land survey services as needed to facilitate the design and permitting of the PROJECT. These services will be performed in accordance with the methodologies and standards described under Task 1.2 above.

The CONSULTANT will provide additional sediment sampling services as required to facilitate characterization of the lake sediments. These services may be necessary in the event that either; (1) the sediment samples collected as part of the hydrographic survey are not representative of the overall sediment body thereby requiring limited re-sampling or (2) the total number of samples proposed to be collect in Task 1.2 proves to be insufficient to adequately describe the sediment body.

TASK C1.2 - PHYSICAL AND CHEMICAL CHARACTERIZATION

The CONSULTANT will provide physical and chemical characterization of the additional sampling services conducted under Task C1.2 above. The characterization methodologies and standards will be as described under Task 1.3 above. Up to three U.S. Army Corps of Engineers settling tests are also included in this task and will be performed if requested for permitting.

TASK C1.3 - GEOPHYSICAL AND GEOTECHNICAL SITE INVESTIGATIONS

The CONSULTANT will provide an expanded scope of services related to the investigation of the Largo Landfill in the event that permitting discussions and other data collections under Task 1 indicate a necessity to do so. The effort expected under this task is estimated at 20% of the effort defined under Task 1.4.

TASK C1.4 - GEOTECHNICAL DESIGN

The CONSULTANT will provide an expanded scope of services related to the design of the sediment disposal area in the event that permitting discussions and other data collections under Task 1 indicate a necessity to do so. The effort expected under this task is estimated at 20% of the effort defined under Task 2.2.

TASK C1.5 - STORM AND SEDIMENT WATER MANAGEMENT DESIGN

The CONSULTANT will provide an expanded scope of services related to the design of water management facilities in the event that permitting discussions and other data collections under Task 1 indicate a necessity to do so. The effort expected under this task is estimated at 20% of the effort defined under Task 2.3.

TASK C1.6 - SOLID WASTE MANAGEMENT FACILITY PERMITTING

It is possible that utilization of the Largo Landfill will require a separate Solid Waste Management Facility (SWMF) permit through the solid waste division of FDEP. This determination will be dependent on sediment characteristics, the overall project design, and the proposed design of the sediment disposal area. It is expected that this determination will be made during review of the ERP application by FDEP staff or potentially during pre-application discussions with the agency.

C4.6.1 Agency Communication and Coordination: Upon determination that a SWMF permit is necessary, the CONSULTANT will meet with agency staff to establish the general submittal requirements in terms of information, assurances, and design details. These discussions will form the basis for subsequent design and application preparation efforts. Additionally, to ensure that the overall permitting process is conducted as efficiently as possible, pre-submittal meetings will be conducted prior to submittal of initial permit applications and responses to agency RAIs.

C4.6.2 Permit Applications and RAI Responses: The CONSULTANT will prepare permit application materials including supporting documentation in accordance with the requirements of Chapter 62-701 F.A.C. (Application to Construct, Operate, Modify, or Close a Solid Waste Management Facility, FDEP Form #: 62-701.900(1)). Up to 3 RAI response documents are anticipated and included in the budget for this subtask.

The scope and budget for this subtask does not include payment of application fees which are assumed to be provided by the COUNTY independent of this Scope of Work.

C4.6.3 Deliverables: Up to four hard copies of permit submittals and RAI responses will be provided to the COUNTY along with up to four electronic copies in pdf format (draft for review and final). Five hard copies of each permit submittal and RAI response will be provided for agency review.

TASK C1.7 - OPTIONAL PUBLIC OUTREACH TASKS

The CONSULTANT will assist the COUNTY with any miscellaneous public information issues that arise over the course of the project including homeowner's group presentations, field visits to meet stakeholders, fielding questions from public, and other tasks designated by the COUNTY project manager.

TASK C1.8 - CONSTRUCTION OPERATIONAL OVERSIGHT AND TECHNICAL GUIDANCE (PHASE 2)

The CONSULTANT will provide up to 104 hours of technical consultation to the contractor and/or the COUNTY in addition to the base effort defined under Task 5.2.

TASK C1.9 - NUTRIENT FLUX INVESTIGATION

In support of project permitting efforts, the CONSULTANT will perform an investigation designed to:

- Quantify the loading of P and N from organic sediments to the lake water column as a result of passive diffusion and sediment resuspension; and
- Estimate the probable reductions in P and N loading that will occur if sediments are removed by dredging.

The information gathered in this task will be used to assist in the prioritization of removal of sediment types and spatial groupings of sediments within the lake and to quantify the potential beneficial impacts of sediment removal on lake water quality. Based on the lake sediment surveys performed in

1991 and 1997, it appears likely that two combinations of organic sediment types and DO regimes will be encountered that are candidates for dredging in Lake Seminole:

- Highly organic (>40% LOI), anoxic
- Moderately organic (>25% LOI), aerobic

The CONSULTANT will evaluate both types of candidate sediment types in this task as described in the following sections.

C2.0 - LABORATORY INVESTIGATION

The CONSULTANT will collect replicate cores of both sediment types (highly organic/anoxic and moderately organic/aerobic) and corresponding underlying non-organic lake bed materials (representing dredged conditions) by boat, using a corer. Following collection the cores will be brought to the surface and the bottom will be sealed prior to removal from the water, in order to maintain core integrity. Cores will be placed in a vertical rack and maintained at ambient temperature during transit to the laboratory.

In the laboratory the cores will be incubated in the dark using a DO regime and temperature range that is consistent with ambient conditions at the collection site. Water samples will be removed from each core at pre-determined intervals (e.g., 1 d, 2 d, 4 d, 8 d, 12 d, 16 d, 20 d, and 24 d following core collection) for analysis, and replaced with an equal volume of filtered lake water.

Nutrient fluxes caused by two different mechanisms (passive diffusion and sediment resuspension) are known to be important in many shallow eutrophic lakes. Passive diffusion rates will be measured using undisturbed cores, while fluxes due to sediment resuspension will be measured in cores whose uppermost layers (upper 1 – 5 cm) are gently agitated until the sediment material becomes suspended throughout the overlying water column.

The number of experimental units (incubated cores) used in this task will be based on the number of sediment types included in the analysis, the number of experimental treatments (flux mechanisms), and the number of replicates per treatment. This task will include a total of 24 (2 x 4 x 3) cores, based on the following:

- Number of sediment types/DO regime combinations = 2
- Number of flux mechanisms = 4 (diffusive, resuspension, "dredged" (2))
- Number of replicates per treatment = 3 (to provide information on variability among cores)

C3.0 - DELIVERABLES

Upon completion of the analytical work associated with this task, a summary report will be prepared and submitted to the COUNTY. The report will detail the methodologies used in the study, summarize locations and physical settings for each experimental unit, summarize the analytical results of the study, and present conclusions inferred from the study. Up to four hard copies and four electronic copies of the report will be provided to the COUNTY.

TASK C4.0 - PROJECT SAMPLING AND CHARACTERIZATION PLAN

If necessary based on pre-application meetings with permitting agencies, the CONSULTANT will prepare a sampling and characterization plan prior to initiation of sediment sampling and characterization work. The plan will be prepared with input from regulatory staff to assure that sampling methodologies, analytical methods, and the overall characterization plan will provide the appropriate level of reasonable assurance necessary for permitting of the PROJECT. The plan will serve as the primary guidance document related to the methodologies used in sampling and characterization efforts for the PROJECT.

AGENDA ITEM INFORMATION SHEET

The information requested below is required to be supplied by the Office of the **County Administrator** with all **Board of County Commissioners' (BCC) regular** and **work session agenda items**. Please **complete** this form with all applicable information and **attach it** to the top of your **original agenda item package** that is being submitted for review, signature, and approval. Your cooperation is helpful and appreciated. Thank you.

1. Target BCC **regular public meeting agenda** or **work session date**: 12/14/10
2. **Department(s)**: Public Works
3. Do you anticipate a **presentation** for this item? Please check ☐ Yes ☒ No
4. Name(s) of primary **department representative(s)** and other **staff member(s)** who will be in attendance, if requested by Assistant County Administrator: Pete Yancich
5. Name(s) and number of **non-staff-member presenter(s)**, including outside consultants, state, city, or other representatives, who will be in attendance: _____
6. Provide a **good-faith estimate** of time for your presentation and **anticipated BCC discussion** of issues; for a **public hearing** or **work session** item, include **time** for **anticipated citizens' input**. _____ minute(s) _____ hour(s)
7. Do you or colleagues know of any **citizens** or **representative groups** who want to **speak to** your **work session** or **public hearing item**? Please check ☐ Yes ☒ No
8. If yes, provide those **names** of the group and speakers and a **good-faith estimate** of the number of speakers. _____
9. Do you anticipate a need for **overflow seating**? Please check ☐ Yes ☒ No
10. Comments: _____