

II. FISCAL IMPACT ANALYSIS

A. Five Year Summary of Fiscal Impact:

Fiscal Years	2012	2013	2014	2015	2016
Capital Expenditures	<u>\$ 317,000.00</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
External Revenues	<u>\$ (317,000.00)</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Program Income (County)	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
In-Kind Match County	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
NET FISCAL IMPACT	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
# ADDITIONAL FTE POSITIONS (Cumulative)	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

Budget Account No.: Fund 1542 Dept 720 Unit 1GUA Object 3401

Is Item Included in Current Budget? Yes X No

Reporting Category N/A

B. Recommended Sources of Funds/Summary of Fiscal Impact:

Community Challenge Planning Grant

C. Department Fiscal Review: Delia M. West

III. REVIEW COMMENTS

A. OFMB Fiscal and/or Contract Development and Control Comments:

<p><u>[Signature]</u> 7/31/12 OFMB 33 7/21/12 7/23/12 7/19/12</p>	<p><u>[Signature]</u> 8/2/12 Contract Development and Control A. J. [Signature]</p>
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B. Legal Sufficiency:

[Signature]
Assistant County Attorney

C. Other Department Review:

Department Director

This summary is not to be used as a basis for payment.



**Palm Beach County
Water Utilities
Department
Service Area (SA) and
Major Facilities**

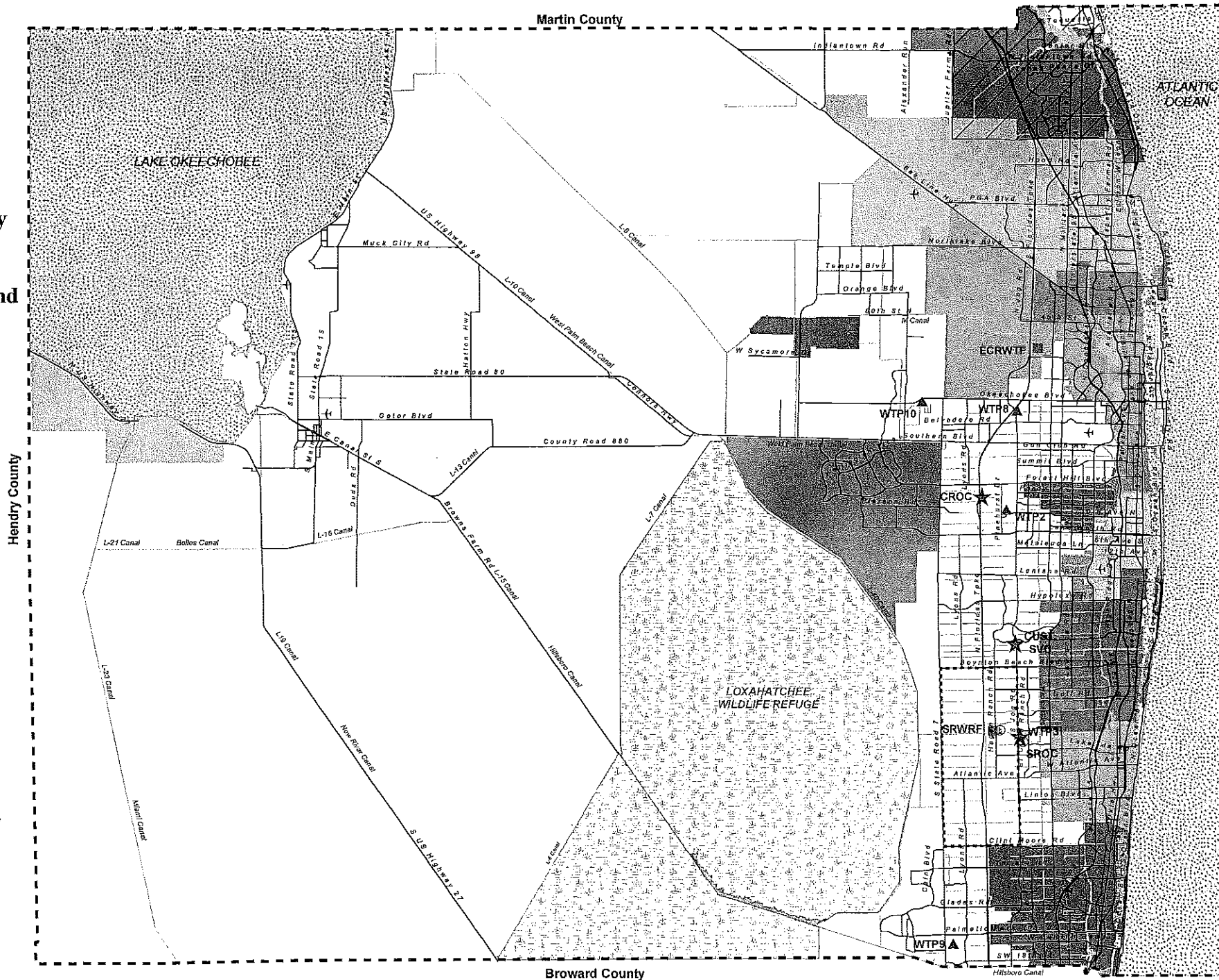
Attachment 1

Legend

- P.B.C.W.U.D. SA
- - - - Mandatory Reclaimed SA
- - - - Palm Beach County Limits
- ★ Administration
- ☒ Water Reclamation Facility
- ▲ Water Treatment Facility
- ⊙ Wetlands



NOT TO SCALE



CONSULTANT SERVICES AUTHORIZATION NO. 5

Project No. WUD 12-068Budget Line Item No. 1542-720-160A-3401Project Title: Glade Wastewater Master PlanDistrict No.: 5

THIS AUTHORIZATION # 5 to the Contract for Consulting / Professional Services dated 5/3/2011 with an effective date of 6/3/2011 (Resolution / Document R2011-0631), by and between Palm Beach County and the Consultant identified herein, is for the Consultant Services described in item 3 of this Authorization. The Contract provides for 20.00% SBE participation overall. This Consultant Services Authorization includes 20.06% overall. The cumulative SBE participation, including this authorization is 17.70% overall. Additional authorization will be utilized to meet or exceed the stated overall participation goal.

1. CONSULTANT: Hazen and Sawyer, P.C.
2. ADDRESS: 2101 NW Corporate Boulevard, Suite 301, Boca Raton, FL 33431
3. Description of Services to be provided by the Consultant:

This Consultant Service Authorization encompasses preparation of a Glades Wastewater Master Plan.

See Exhibit "A" for additional details
4. Services completed by the Consultant to date:

See Exhibit "B" and "C"
5. Consultant shall begin work promptly on the requested services.
6. The compensation
 - A. Computation of time charges plus expenses, not to exceed \$ n/a
 - B. Lump sum of \$317,000.00
7. This Authorization may be terminated by the County without cause or prior notice. If the termination is not the fault of the Consultant, the Consultant shall be compensated for all

Project No.: WUD 12-068

services performed through the date of termination, together with reimbursable expenses (if applicable) then due.

8. EXCEPT AS HEREBY AMENDED, CHANGED OR MODIFIED, all other terms, conditions and obligations of the Contract dated 5/3/2011 with an effective date of 6/3/2011 remain in full force and effect.

IN WITNESS WHEREOF, this Authorization is accepted, subject to the terms, conditions and obligations of the aforementioned Contract.

CONSULTANT:

PALM BEACH COUNTY:

FIRM: Hazen and Sawyer, P.C.

Signed: *Albert Muniz*

Signed: _____

Typed Name: Albert Muniz, P.E.

Typed Name: Shelley Vana

Title: Vice President

Title: Chair, Palm Beach County
Board of County Commissioners

Date: 6-26-12

Date: _____

Signed: *[Signature]*

Typed Name: Robert B. Taylor, P.E.

Approved as to form and legal sufficiency:

Title: Vice President

Date: 6-26-12

County Attorney

ATTEST:

Sharon R. Bock, Clerk & Comptroller
Palm Beach County

[Signature]
(Signed)

By: _____
Deputy Clerk

EXHIBIT A

CONSULTANT SERVICES AUTHORIZATION NO. 5

PALM BEACH COUNTY WATER UTILITIES DEPARTMENT ENGINEERING / PROFESSIONAL SERVICES

INTRODUCTION

On May 3, 2011 Palm Beach County (COUNTY) entered into an agreement entitled Contract for Engineering / Professional Services – Palm Beach County Water Utilities Department Project No. WUD 12-068 (CONTRACT) with Hazen and Sawyer (CONSULTANT) to provide engineering services for various general activities. This Consultant Service Authorization will be performed under that CONTRACT.

This Consultant Service Authorization encompasses preparation of the Glades Wastewater Master Plan for the Palm Beach County on a lump sum basis.

BACKGROUND

CONSULTANT has been asked to prepare a Wastewater Master Plan for the Glades Region. The planning area under the Wastewater Master Plan is for the entire Glades Region consisting of 25,634 acres of which 74% is located in unincorporated Palm Beach County and only 26% with the Tri-Cities. A scope of work has been prepared based on CONSULTANT's understanding of the project, knowledge of the COUNTY's utility and its operation, utility industry standards, and information and discussions with the COUNTY staff. The scope of work has been developed with the intent of determining the requirements for future utilities infrastructure and an implementation plan for the resultant Capital Improvement Program, including scheduling and financing, to match the pace of utility system development, and renewal and replacement. The identified time period for this plan is through 2035.

The CONSULTANT will prepare a 2035 Wastewater Master Plan to be used primarily as a guide for capital improvements planning and implementation. The Wastewater Master Plan will address the following areas, some of which will be prepared by the COUNTY as discussed in the scope of work:

- Wastewater service area, including areas currently without wastewater service
- Inter-local agreements
- Population projections
- Wastewater flow and load estimates
- Collection / transmission system hydraulic modeling and calibration
- Collection system capacity and reliability analysis
- Infiltration and inflow study

- Regulatory driven improvements
- Wastewater treatment plant evaluation, including effluent disposal and reuse
- Telemetry / SCADA as available
- Capital improvement plan and implementation schedule

SCOPE OF SERVICES

Task 1 – Project Kick-off Meeting

The CONSULTANT will organize and lead a kick-off meeting with the COUNTY staff and key members of the project team. During this meeting, the overall work plan and schedule will be discussed, lines of communication will be established, and data needs will be assessed. It is anticipated that the COUNTY will provide CONSULTANT with required data within the first four weeks following receipt of a Project Notice-to-Proceed. Data that are expected to be required include, but are not limited to, the following:

- a. Service area maps, utility atlases and reference maps (paper/electronic)
- b. Record drawings of existing facilities and infrastructure (paper/electronic)
- c. Any available SCADA data for wastewater collection, transmission and treatment systems
- d. Existing Capital Improvements Plan, previous master plans and copies of other relevant reports
- e. Shop drawings and/or vendor O&M manuals of existing equipment
- f. Pump curves for wastewater pumping stations
- g. Monthly wastewater flow records from the Belle Glade and Pahokee WWTPs for the past 2 years
- h. Infiltration / inflow program documentation
- i. GIS shape files including piping layers w/ attributes, parcel layers, service area boundaries for water and wastewater, basin maps for wastewater collection systems, and point layers w/ attributes
- j. Account files and database with historical water/wastewater accounts
- k. Any available asset management data
- l. Operating permits and discharge permits as applicable

Key elements such as data collection, planning period, planning area, population projection methodology, modeling, COUNTY objectives, and future wastewater service goals will be discussed during the kick off meeting. In addition, identification and prioritization of known “problem areas” to be evaluated as part of the wastewater modeling task will be discussed. The meeting will also be used to gain consensus on the approach to utilize for the evaluation and comparison of potential alternatives. Kick-off meeting minutes will be prepared and distributed by the CONSULTANT.

Deliverable(s):

- 1.1 – Minutes from project kick-off meeting

Task 2 – Renewal and Replacement Improvements

CONSULTANT will assemble a team of engineers with expertise in structural, electrical, instrumentation, mechanical and wastewater process engineering. This team will conduct a two day site visits to each of the two WWTPs (i.e., Belle Glade and Pahokee) to review existing facilities with COUNTY operations and maintenance personnel.

Perform six major test techniques used to determine the condition of major process equipment as follows:

- Vibration Analysis
- Power Circuit Evaluation
- Thermographic Inspection
- Lubrication Analysis (Tribology)
- Alignment Inspection
- Physical Conditions

Fee for outside services for the above tasks are limited to \$7,000.00 with the balance paid for by the County. The work will be done in close cooperation with facility staff and will include review meetings with staff before the preliminary evaluation period to verify nameplate and design information such as horsepower, speed, bearing temperature and other pertinent data required to determine if the machine is operating normally.

Perform a site inspection of structures and process unit tankage to determine the current condition of the unit items relative to the extent of corrosion and structural integrity. CONSULTANT will also identify necessary repairs and replacement requirements needed to maintain the integrity of the structural components.

Based on field reviews of the WWTP facilities, CONSULTANT will develop a Microsoft Excel spreadsheet list of major wastewater treatment above ground infrastructure (e.g., pump, motors, treatment unit rake mechanisms, filter media, filter controls, chemical systems, diesel engine generators, etc.). The list will also include the following information, if available:

- Equipment name;
- Equipment tag number;
- Location;
- Year installed;
- Estimate expected life of equipment (expected life based upon values in published literature and agreed upon by COUNTY);
- Estimate the remaining useful lives of major equipment and facilities on the basis of age and expected total life;
- Estimate the cost of anticipated equipment replacement expenditures; and

- Calculate annual equipment replacement funding requirements over the next years.

Buried infrastructure and piping condition will not be physically evaluated as part of this task effort. A limited assessment of onsite WWTP piping will be performed based on available information provided by the COUNTY. The COUNTY will provide information on the onsite WWTP piping infrastructure regarding material type and age that will be utilized by the CONSULTANT for the purpose of evaluating useful life based on industry guidelines. Salvage value will be assumed to be zero. Estimating the costs of routine maintenance, such as oil changes, lubrication, belt adjustments, etc. will not be included as part of this task effort. The CONSULTANT will prepare a technical memorandum describing the findings of the renewal and replacement evaluation.

A draft of the technical memorandum will be prepared and submitted to the COUNTY for review. A review meeting will be held within two weeks of submission of the draft document to discuss comments on the technical memorandum. The COUNTY will provide written comments at the meeting. Comments from the meeting will be documented in meeting minutes and incorporated as applicable in the final version of the technical memorandum within two weeks of the review meeting.

Deliverable(s):

- 2.1 – Draft technical memorandum on renewal and replacement improvements
- 2.2 – Minutes from review meeting
- 2.3 – Final technical memorandum on renewal and replacement improvements

Task 3 – Wastewater Service Area

The CONSULTANT will assist the COUNTY in performing the following tasks related to review and evaluation of wastewater service area boundaries:

- a. COUNTY will provide a GIS map depicting the existing wastewater service area which highlights areas currently without wastewater service
- b. COUNTY and CONSULTANT will meet to clearly identify boundaries for collection / conveyance of wastewater, and jointly establish future expansion and growth areas for consideration in the Wastewater Master Plan

A draft of the technical memorandum summarizing the wastewater service area will be prepared and submitted to the COUNTY for review. A review meeting will be held within two weeks of submission of the draft document to discuss comments on the technical memorandum. The COUNTY will provide written comments at the meeting. Comments from the meeting will be documented in meeting minutes and incorporated as applicable in the final version of the technical memorandum within two weeks of the review meeting.

Deliverable(s):

- 3.1 – Draft technical memorandum on wastewater service area

- 3.2 – Minutes from review meeting
- 3.3 – Final technical memorandum on wastewater service area

Task 4 – Population Projections

The COUNTY will evaluate the present population and future service area and provide a population forecast for the planning horizons in the Years 2015, 2020, 2025, 2030 and 2035. Population forecasts will be prepared based on Palm Beach County Planning Department and University of Florida Bureau of Economic and Business Research (BEBR) population estimates and forecasts as divided into Traffic Analysis Zones (TAZs) within the service areas.

A draft of the technical memorandum summarizing the population projections will be prepared and submitted to the COUNTY for review. A review meeting will be held within two weeks of submission of the draft document to discuss comments on the technical memorandum. The COUNTY will provide written comments at the meeting. Comments from the meeting will be documented in meeting minutes and incorporated as applicable in the final version of the technical memorandum within two weeks of the review meeting.

Deliverable(s):

- 3.1 – Draft technical memorandum on population projections
- 3.2 – Minutes from review meeting
- 3.3 – Final technical memorandum on population projections

Task 5 – Wastewater Flow and Loading Projections

The CONSULTANT will determine current system-wide flows using a combination of available historical data, current water billing data, flow monitoring data, pump station flow records and treatment plant flow records which will be provided by COUNTY. The future wastewater flows will be developed in conjunction with the water demand projections in the COUNTY's most recent water system master plan. CONSULTANT will develop wastewater flow projections for 2015, 2020, 2025, 2030 and 2035 using the following methodology:

1. The COUNTY will delineate the wastewater service area boundaries by each pump station collection basin and create a basin boundary layer shape file in GIS format which will be provided to the CONSULTANT.
2. The CONSULTANT will perform an evaluation by linking wastewater flow generation to projected population growth patterns. CONSULTANT will use historical per capita wastewater flow rates associated with different types of development and land use as provided by the COUNTY. For the undeveloped areas, the future wastewater flows will be estimated using future land use data within their respective municipal jurisdictions compiled and prepared by COUNTY.

The CONSULTANT will generate system-wide wastewater flow WWTP peaking factors from the historical flow data. The CONSULTANT will prepare aggregate wastewater flow and loading

forecasts for the wastewater service area for the years 2015, 2020, 2025, 2030 and 2035. Forecasts will be derived considering population growth forecasts from previous tasks along with the anticipated schedule for providing wastewater service (i.e., sewer) to existing septic tank areas, and will reflect base wastewater flow and infiltration and inflow. The CONSULTANT will develop flow projections for individual sewer subsystem drainage areas as identified by the COUNTY for current and build-out conditions.

The CONSULTANT will estimate future wastewater constituent concentrations and loads based on a statistical analysis of daily historical flow data and influent concentration data at the Belle Glade and Pahokee WWTPs. Parameters to be analyzed include BOD₅, cBOD₅, COD, TSS, VSS, TKN, and TP. Daily flow and concentration data will be analyzed over the same time increments to develop concentration and load projections for the years 2015, 2020, 2025, 2030 and 2035.

A draft of the technical memorandum summarizing the wastewater flow and load projections will be prepared and submitted to the COUNTY for review. A review meeting will be held within two weeks of submission of the draft document to discuss comments on the technical memorandum. The COUNTY will provide written comments at the meeting. Comments from the meeting will be documented in meeting minutes and incorporated as applicable in the final version of the technical memorandum within two weeks of the review meeting.

Deliverable(s):

- 5.1 – Draft technical memorandum on wastewater flow and loads
- 5.2 – Minutes from review meeting
- 5.3 – Final technical memorandum on wastewater flow and loads

Task 6 – Collection and Transmission System Hydraulic Modeling

The CONSULTANT will develop a wastewater hydraulic model for evaluating major network capacity improvements, using scaled dimensions of force mains and lift stations utilizing the Infowater application.

The CONSULTANT will obtain data from the COUNTY related to the collection and transmission systems that will be compiled to perform a hydraulic evaluation. In addition to the data collected in Task 1, the following is a list of data (where available) that the COUNTY will provide:

- Geographic information system (GIS) shape files that depict wastewater system infrastructure (including pump stations, valves, manholes, pipes, etc.);
- Pump station record drawings, including wet well dimensions, pump control elevations, pump model numbers, and pump curves;
- SCADA data (pressures, flows, levels, etc.) for the master pumps, individual lift station pumps and all wastewater transmission system pressure monitoring stations for the years 2008, 2009 and 2010, if available;

- SCADA data of all pump station pump on/off events records for the year 2011, if available;
- Field operation log records on known valve closures for the year 2011; and
- Provide information on pumping stations that have known areas of concern, such as overflows, surcharges, and/or extended pump runtimes.

The CONSULTANT will import the GIS pipe network layer into the Infowater model. Pump station nodes will be created based on sewer atlas and pump station as built drawings which have been provided by the COUNTY.

The current pump station dry weather flows will be calculated from the water billing data provided by the COUNTY and converted to wastewater flows using a computed ratio. Flow diurnal patterns will developed for each pump station based as described in the paragraphs below.

The wet weather flows will be determined by reviewing available historical rainfall and flow records of pump stations and flow records from the Belle Glade and Pahokee WWTPs. Peak flow factors will be determined for pump stations where adequate flow records are available.

CONSULTANT will develop a model verification plan that includes:

- A list of up to 15 pump stations for discharge pressures monitoring locations in addition to the current permanent pressure monitoring stations,
- A list of up to 15 flow monitoring locations, and
- The time periods and time steps of the system flow and pressure monitoring data collections

Field data will be collected and compiled to support model calibration procedures. CONSULTANT will coordinate with COUNTY to install COUNTY provided Telog digital pressure recorders. Designated locations will be monitored simultaneously for a period of eight days. COUNTY staff will install and relocate the recorders in accordance with the location and data collection schedule provided by the CONSULTANT.

CONSULTANT will develop the following model scenarios to evaluate the network based on the above specified criteria:

- Maximum daily flow for current flow condition (EPS)
- Maximum daily flow for future flow conditions through the planning period year 2035 (EPS), using 5-year increments
- Maximum daily flow for future flow conditions with proposed improvements (EPS) through the planning period year 2035, using 5-year increments

CONSULTANT will run each of the above listed model scenarios to identify system capacity deficiencies such as limitations with transmission pump station capacity, wet well capacity, and

pressure related hydraulic constraints. Using the results of the modeling effort, CONSULTANT will propose network improvements including new pipes, new pump stations or required upgrades of existing pump stations, and/or new operation strategies to resolve identified network deficiencies.

CONSULTANT will prepare a listing of force main and pump station improvements. Improvement locations will be illustrated on a map of the service area. CONSULTANT will provide opinions of probable costs and the timing required for the recommended improvements.

A draft of the technical memorandum summarizing the modeling performed will be prepared and submitted to the COUNTY for review. The modeling technical memorandum will document the methodology used with the evaluation of the wastewater transmission system and summarize the results of each model scenario evaluated. A review meeting will be held within two weeks of submission of the draft document to discuss comments on the technical memorandum. The COUNTY will provide written comments at the meeting. Comments from the meeting will be documented in meeting minutes and incorporated as applicable in the final version of the technical memorandum within two weeks of the review meeting.

Deliverable(s):

- 6.1 – Draft technical memorandum on hydraulic modeling
- 6.2 – Minutes from review meeting
- 6.3 – Final technical memorandum on hydraulic modeling

Task 7 – Collection and Transmission System Capacity and Reliability Analysis

CONSULTANT will evaluate the capacity and reliability of the wastewater collection and transmission system as follows:

- a. CONSULTANT will conduct a walk-through with COUNTY staff of their lift stations and master pump stations.
- b. The CONSULTANT will be responsible for the general physical inspection of lift stations and master stations to assess general conditions of structures; mechanical (i.e., pumps, pipe, and valves), electrical and telemetry equipment; operational evaluation of pumping equipment; odor and noise levels. Inspections shall be based on visual observations where accessible.
- c. CONSULTANT will review findings based on Task 7(a) and 7(b), and include required improvements into the collection and transmission system capital improvements plan.

A draft of the technical memorandum summarizing recommended pump station improvements over the planning horizon will be prepared and submitted to the COUNTY for review. A review meeting will be held within two weeks of submission of the draft document to discuss comments on the technical memorandum. The COUNTY will provide written comments at the meeting.

Comments from the meeting will be documented in meeting minutes and incorporated as applicable in the final version of the technical memorandum within two weeks of the review meeting.

Deliverable(s):

- 7.1 – Draft technical memorandum identifying required collection system pump station reliability upgrades over the planning horizon
- 7.2 – Minutes from review meeting
- 7.3 – Final technical memorandum identifying required collection system pump station reliability upgrades over the planning horizon

Task 8 – Infiltration and Inflow Study

An infiltration and inflow study and Sanitary Sewer Evaluation Survey (SSES) for the gravity sewer systems in the Glades wastewater service area will be performed as part of the master planning effort. Key information for the Glades wastewater collection and transmission systems is summarized in the following table:

System	No. of Pump Stations	No. of Pump Stations with Gravity Systems	Linear Feet of Gravity Mains
Belle Glade	46	26	174,697
Pahokee	40	12	91,145
South Bay	10	7	47,360
Totals	96	45	313,202

Infiltration and inflow programs are typically conducted in three phases as outlined below:

Phase 1 – Analysis of dry and wet weather flows both for the overall system and for individual pump station collection areas (basins). System-level analysis allows an overall characterization of the system to illustrate the approximate proportions of infiltration, inflow, and wastewater. Basin-level analysis allows the prioritization of individual pump station collection areas by the infiltration and inflow severity so that follow-up inspection work can be focused on those areas where the greatest infiltration and inflow reduction potential exists.

Phase 2 – Detailed investigation to develop a gravity sewer rehabilitation plan. Such investigation is designed to permit the identification of specific system defects to be repaired in Phase 3, and typically involves such activities as night flow isolation, closed-circuit television inspection of sewer mains and laterals, manhole inspection, and smoke testing to identify sources of inflow.

Phase 3 – Implementation of the rehabilitation plan. This phase typically includes procurement and oversight of specialty sewer contractors to perform repair of mains, laterals, and manholes. Repairs would include traditional excavated repairs as well as “trenchless” repairs such as lining and chemical grouting where warranted. Phase 3 may also include post-rehabilitation flow monitoring to document the flow reductions achieved.

The scope of work to be provided as outlined below allows for the performance of the following tasks in support of Phases 1 and 2 for the wastewater systems previously described. In an effort to minimize the total cost of the work, CONSULTANT has developed a collaborative approach that relies on the performance of some subtasks by COUNTY staff as described below. The fee for this task is limited to \$61,248.00 with the balance of work performed by COUNTY staff as needed:

Flow Monitoring Data Collection for Basin Prioritization

Subtasks by CONSULTANT include:

- Analyze the system and select locations requiring new flow data
- Install flow monitoring data loggers at selected locations where SCADA data are not available. Access the installations to download accumulated data. Uninstall flow monitoring data loggers upon completion of data collection. CONSULTANT will be responsible for renting flow monitoring equipment

Subtasks by COUNTY include:

- Measure wet well fill volumes when requested by CONSULTANT
- Provide access throughout the project to engineering and operations staff for field visit accompaniment when required and interviews to help supplement existing data and document existing conditions

Flow Monitoring Data Analysis for Basin Prioritization

Subtasks by CONSULTANT include:

- Analyze wastewater flow data considering selected wet weather events and periods of high groundwater level, as well as the so-called “night flow” time period between 1:00 AM and 5:00 AM when actual wastewater flow is minimal and the majority of flow is infiltration

Subtasks by COUNTY include:

- Provide access by CONSULTANT to the system and facilities as required to obtain flow monitoring data
- Respond to information requests by CONSULTANT as required

Phase 1 Report with Basin Prioritization

Subtasks by CONSULTANT include:

- Compare system-wide water usage and wastewater flow records for the most recent available 12-month period
- Characterize the overall system based on infiltration and inflow severity and the approximate proportions of infiltration, inflow, and wastewater
- Convert basin-level flow data into units of gallons per day-inch-mile (using a breakdown of piping lengths and diameters for each basin to be provided by COUNTY)
- Prioritize basins by infiltration and inflow severity so that follow-up inspection and rehabilitation work can be focused on those areas where the greatest infiltration and inflow reduction potential exists
- Develop a report to document the Phase 1 work
- Provide three copies of draft report for review by the COUNTY
- Meet with COUNTY to review draft report
- Provide three bound copies and one electronic copy (PDF format) of the final report

Subtasks by COUNTY include:

- Provide system-wide water usage and wastewater flow records for the most recent available 12-month period
- Provide a breakdown of piping lengths and diameters for each basin, if available, so that gallons per day-inch-mile values can be calculated
- Respond to other information requests by CONSULTANT as required

Night Flow Isolation

Subtasks by CONSULTANT include:

- Analyze the system and select locations for night flow isolation
- Access the manholes during the night flow period and document observations regarding sources and estimated rates of flow

Subtasks by COUNTY include:

- Accompany CONSULTANT in field. Perform lift station pump-downs and/or shutdowns, and locate and open manholes, as requested by CONSULTANT

Closed-Circuit Television Inspection - Review and Recommendations (Mains)

Subtasks by CONSULTANT include:

- Analyze videotapes provided by a specialty sewer inspection contractor or by the COUNTY. Video performed by others
- Record and document the location and nature of obstructions such as dropped joints, protruding service connections and broken pipe; as well as cracks, separated joints, and other pipe defects that may permit groundwater infiltration. Develop repair recommendations and estimated costs as warranted

- Identify "suspect" laterals to be inspected at a later time using specialized equipment

Subtasks by COUNTY include:

- None

Closed-Circuit Television Inspection - Review and Recommendations (Laterals)

Subtasks by CONSULTANT include:

- Analyze videotapes provided by a specialty sewer inspection contractor or by COUNTY forces
- Record and document the location and nature of obstructions such as dropped joints and broken pipe, as well as cracks, separated joints, and other pipe defects that may permit groundwater infiltration. Develop repair recommendations and estimated costs as warranted

Subtasks by COUNTY include:

- None

Manhole Inspection

Subtasks by CONSULTANT include:

- Identify problem areas, such as buried manholes, and help verify the sewer maps
- Inspect each manhole with the use of a strong artificial light or reflected sunlight and record the following data:
 - ✓ Manhole designation
 - ✓ Length between manholes
 - ✓ Manhole size and opening
 - ✓ Number and size of holes, if any, in manhole covers
 - ✓ Cover defects enabling inflow into the system
 - ✓ Susceptibility to ponding (whether the cover would become submerged in wet weather)
 - ✓ Sketch of invert showing direction of flow
 - ✓ Construction materials and conditions of cover, frame, rings, corbels, walls, steps, aprons and troughs
 - ✓ Quantification of visible sources of infiltration
 - ✓ Special problems and conditions, such as surcharges and bypasses
 - ✓ Type and amount of debris in the manhole
 - ✓ Incoming and outgoing sewer lines connected to the manhole
- Safety procedures will be strictly followed during the manhole inspection phase. Traffic will be rerouted by means of traffic cones when manholes are located in the street. Confined space manhole entry will not be performed under this scope of work. Photographs will be taken to document the manhole physical conditions

Subtasks by COUNTY include:

- Appoint one contact person, and one backup person, for coordination of activities and for specific assistance as may be required to CONSULTANT including:
 - ✓ Identify areas to be tested and provide a sewer atlas showing manhole numbers
 - ✓ Notify and coordinate with local police
 - ✓ Communicate with traffic authorities
 - ✓ Assist with providing access to the work site and all right-of-ways with sufficient area for the placement of personnel and equipment
 - ✓ Locate and expose any manhole
 - ✓ Relieve system surcharging, if required, in advance of manhole inspection

Smoke Testing

Subtasks by CONSULTANT include:

- Place door hangers in advance of the smoke testing to advise local residents in English and Spanish of the tests
- Smoke test gravity sewer mains using a high volume blower, along with smoke canisters or liquid smoke to generate the smoke. Smoke will be non-toxic, odorless, and non-staining
- Photograph smoke coming out of the ground, catch basins, pipes and other sources during the test, and document observations regarding each leak. As a minimum, the following information will be developed and reported:
 - ✓ A location map showing the location of each smoke source with respect to streets and avenues. The location map will be of a scale suitable to allow the Owner to find the approximate location of the smoke source
 - ✓ A photograph showing the exact location of the smoke source along with the date, address, GPS coordinates, description of the smoke source, and indication as to whether the smoke source is on private or public property
 - ✓ A summary table for the basin including, for each smoke source, the street address, longitude and latitude, description, public/private designation, and page number of associated photo in report. This summary table will also be provided in electronic format (Microsoft Excel). All manhole identification numbers will match COUNTY's sewer atlas
- Provide smoke inspection forms, photographs, and a letter report with the smoke test results

Subtasks by COUNTY include:

- Appoint one contact person, and one backup person, for coordination of activities and for specific assistance as may be required to CONSULTANT including:
 - ✓ Notify and coordinate with local police and fire departments.
 - ✓ Communicate with traffic authorities.
 - ✓ Assist with providing access to the work site and all right-of-ways with sufficient area for the placement of personnel and equipment.
 - ✓ Locate and expose any manhole.
 - ✓ Relieve system surcharging, if required, in advance of smoke testing activities.

Phase 2 – Report with Rehabilitation Plan

Subtasks by CONSULTANT

- Organize field data using an electronic database system. Process, evaluate, and electronically store the results of manhole inspection, closed circuit television (CCTV) inspection, and other inspection activities as applicable. Estimate flow rates associated with infiltration and inflow sources, confirm preliminary repair recommendations and record recommendations and a preliminary repair cost estimate in the database.
 - ✓ Prioritize the recommended rehabilitation work based on cost-effectiveness and other factors. Rehabilitation of a collection system main line, manhole or service line is typically termed "cost-effective" when the cost of rehabilitation to remove a given amount of extraneous flow is less than the cost of continuing to transport, treat, and dispose of that same amount of extraneous flow. The cost analysis involves the following steps
 - ✓ Estimate the cost of rehabilitation of each main line, manhole, or service line defect
 - ✓ Calculate the approximate cost to transport, treat, and dispose of the extraneous flow associated with that defect
 - ✓ Compare the costs developed in the previous two steps and determine the "payback period" of the repair (the number of years to recover the repair cost)

Other factors are considered in addition to cost-effectiveness. Factors such as structural condition, public nuisance, health hazards, system hydraulics, and operation and maintenance demand may become the determining factor as to whether a given repair is assigned a higher priority for rehabilitation.

- Use the database to generate rehabilitation summary sheets that identify each defect and provide the following associated information:
 - ✓ Collection basin number
 - ✓ Upstream and downstream manhole number
 - ✓ Pipe length, diameter, depth and material
 - ✓ Defect description, infiltration and inflow quantification, repair method, estimated repair cost, and estimated payback period
- Sort and organize the rehabilitation summary sheets by drainage area, repair category, and payback period. Rehabilitation summary sheets will be used to develop contractor task assignments to be awarded in the rehabilitation program under a subsequent phase of work
- Compile into three-ring binders all field reports including manhole inspection forms and photographs, and video inspection logs. Binders will be submitted to COUNTY upon project completion along with copies of inspection videotapes from the project
- Develop a report to document the work. The report will document the tasks performed, provide a summary of findings along with rehabilitation recommendations and costs for the elimination of excessive infiltration and inflow sources, identify infiltration and inflow

sources, provide estimates of associated rates, and recommend appropriate repair technologies with projected costs

- Provide three copies of draft report for review by COUNTY
- Meet with COUNTY to review draft report
- Provide three bound copies and one electronic copy (PDF format) of the final report

Subtasks by COUNTY include:

- Respond to information requests by CONSULTANT as required
- Review CONSULTANT's draft report
- Meet with CONSULTANT to provide review comments on draft report

Office Engineering and Management

In addition to the above tasks, CONSULTANT will provide support services during the infiltration and inflow and SSES study. These services will include:

- Coordination of office and field staffs. Act as liaison between COUNTY and inspection contractor(s). Manage and organize inspection documentation generated by CONSULTANT, contractor, and COUNTY personnel. Record repair recommendations along with estimated costs and payback period. Input collected field data and repair recommendations into Microsoft Access database
- Prepare and submit periodic status reports to COUNTY. The reports will provide a description of work performed, significant findings, issues requiring resolution, and contractor-provided scheduling information
- Attend periodic meetings with COUNTY in association with the work performed under the previous tasks. It is anticipated that meetings will generally be held monthly to review the program status and work performed, discuss potential problem areas and issues requiring resolution, and establish schedules and action items for future work. Prepare meeting minutes following each meeting

It is assumed that the COUNTY will provide access throughout the project to engineering and operations staff for field visit accompaniment when required and interviews.

A draft of the technical memorandum summarizing the infiltration and inflow study and SSES will be prepared and submitted to the COUNTY for review. A review meeting will be held within two weeks of submission of the draft document to discuss comments on the technical memorandum. The COUNTY will provide written comments at the meeting. Comments from the meeting will be documented in meeting minutes and incorporated as applicable in the final version of the technical memorandum within two weeks of the review meeting

Deliverable(s):

- 8.1 – Draft technical memorandum on the infiltration and inflow study and SSES
- 8.2 – Minutes from review meeting
- 8.3 – Final technical memorandum on the infiltration and inflow study and SSES

Task 9 – Regulatory Overview

CONSULTANT will prepare a regulatory overview of existing and pending wastewater treatment and disposal requirements. The CONSULTANT will summarize the critical regulatory and permit issues affecting the treatment facilities; assess emerging trends in local, state and federal wastewater regulations; and investigate potential future compliance issues. The CONSULTANT will coordinate with the COUNTY legislative representative to review position papers on regulatory issues. This task will also include a review of existing wastewater effluent, injection wells, reuse, numeric nutrient criteria, and bio-solids with respect to applicable standards.

A draft of the technical memorandum providing a regulatory overview of general wastewater regulations will be prepared and submitted to the COUNTY for review. A review meeting will be held within two weeks of submission of the draft document to discuss comments on the technical memorandum. The COUNTY will provide written comments at the meeting. Comments from the meeting will be documented in meeting minutes and incorporated as applicable in the final version of the technical memorandum within two weeks of the review meeting.

Deliverable(s):

- 9.1 – Draft technical memorandum on regulatory overview
- 9.2 – Minutes from review meeting
- 9.3 – Final technical memorandum on regulatory overview

Task 10 – O&M Performance Report

CONSULTANT will prepare a complete Operations and Maintenance Performance Report for both the Belle Glade and Pahokee WWTPs based on the requirements of FAC Chapter 62-600.735 to provide reasonable assurance that the facility will meet or exceed the effluent treatment limits. An inspection of the facilities will be provided to evaluate the physical condition of each treatment unit, the treatment efficiencies of each treatment process, the overall treatment efficiency of the treatment plant, performance trends, and the current operation and maintenance program. This report will also identify the deficiencies, if any, of the physical capacity and performance conditions of the plant.

CONSULTANT will prepare capital cost estimates of infrastructure improvements required to provide 20-year service life of unit processes based on the Operations and Maintenance Performance Reports.

A draft of the O&M Performance Report will be prepared and submitted to the COUNTY for review. A review meeting will be held within two weeks of submission of the draft document to discuss comments. The COUNTY will provide written comments at the meeting. Comments

from the meeting will be documented in meeting minutes and incorporated as applicable in the final version within two weeks of the review meeting.

Deliverable(s):

- 10.1 – Draft O&M Performance Report
- 10.2 – Minutes from review meeting
- 10.3 – Final O&M Performance Report

Task 11 – Capacity Analysis and Plant Optimization

CONSULTANT will prepare a Capacity Analysis Report for both WWTPs (i.e., Belle Glade and Pahokee) based on the requirements of Florida Administrative Code (FAC) Chapter 62-600.405. The report will summarize evaluation of the capacity of the plants and contain data showing the permitted capacity; monthly average flows, three-month average flows; and annual average daily flows for the past 10 years; seasonal variations in flow; flow projections based on local population growth and water usage rates over the next 10 years; and an estimate of time required for the three-month average daily flow to reach the permitted capacity. The report will include capital cost estimates of infrastructure improvements required to maintain permitted plant capacities.

In addition to the capacity analysis, CONSULTANT will develop baseline energy efficiency models of both plants, using Hazen Energy Efficiency Tool (HEET). CONSULTANT will develop (jointly with COUNTY and GLADES WASTEWATER) and evaluate potential optimization improvements, including:

Belle Glade WWTP:

- Evaluation of influent flow equalization
- Improvements to flow distribution to Oxidation Ditches Nos. 1 and 2
- Improvements to secondary clarifier reliability improvements
- Consideration of permanent sludge dewatering facilities
- Feasibility of taking one oxidation ditch off-line to reduce energy consumption
- Rehabilitation of deep injection wells; re-development, acidification, re-rate from 8 feet per second to 10 feet per second

Pahokee WWTP

- Assess existing pumping and aeration efficiencies

Evaluate the potential conversion of the Pahokee WWTP to a regional pump station that transfers wastewater flow to Belle Glade WWTP through a new force main for treatment and disposal. Elements to be included in the evaluation are as follow:

- Demolition of Pahokee WWTP and conversion to pump station
- New force main to Belle Glade WWTP
- Relocation of belt press dewatering and stabilization process to Belle Glade WWTP

- Improved treatment efficiency per million gallons at Belle Glade versus Pahokee
- Reduced O&M staff by consolidating treatment at Belle Glade WWTP

CONSULTANT will use the HEET model to assess optimization scenarios identified above and define recommended improvements based on acceptable payback periods. CONSULTANT will prepare capital cost estimates of recommended optimization improvements.

A draft of the technical memorandum summarizing the capacity analysis and recommended plant optimization projects will be prepared and submitted to the COUNTY for review. A review meeting will be held within two weeks of submission of the draft document to discuss comments on the technical memorandum. The COUNTY will provide written comments at the meeting. Comments from the meeting will be documented in meeting minutes and incorporated as applicable in the final version of the technical memorandum within two weeks of the review meeting.

Deliverable(s):

- 11.1 – Draft technical memorandum on capacity analysis and recommended plant optimization projects
- 11.2 – Minutes from review meeting
- 11.3 – Final technical memorandum on capacity analysis and recommended plant optimization projects

Task 12 – Implementation Plan – Costs and Schedule

Based on projects identified in previous tasks, CONSULTANT will develop an implementation plan, as follows:

- a. Develop list of improvement projects.
- b. Develop capital cost estimates for all improvements. For this task, the CONSULTANT will develop Feasibility Study Level Opinions of Probable Cost. These Costs Opinions will be prepared to Class 5 Cost Estimate Levels based on the definition provided by the Association for the Advancement of Cost Engineering (AACE) International Recommended Practice No. 18R-97.
- c. Prepare prioritization of improvement projects; prioritization will be based on multiple criteria including, but not limited to, required timing to meet projected capacity shortfalls; required timing for renewal or replacement projects based on anticipated useful life of existing infrastructure; and timing of optimization improvements to maximize life-cycle cost savings.
- d. Develop cost-loaded implementation schedule utilizing EXCEL spreadsheet.

A draft of the technical memorandum summarizing the implementation plan will be prepared and submitted to the COUNTY for review. A review meeting will be held within two weeks of submission of the draft document to discuss comments on the technical memorandum. The COUNTY will provide written comments at the meeting. Comments from the meeting will be documented in meeting minutes and incorporated as applicable in the final version of the technical memorandum within two weeks of the review meeting.

Deliverable(s):

- 12.1 – Draft technical memorandum on implementation plan
- 12.2 – Minutes from review meeting
- 12.3 – Final technical memorandum on implementation plan

Task 13 – Master Plan

This task will consist of preparation and assembling of the information developed from previous task into a general wastewater master plan. Included in the master plan will be project cost opinions and implementation schedules.

A draft master plan will be prepared and submitted to the COUNTY for review. A review meeting will be held within two weeks of submission of the draft document to discuss comments on the Master Plan Report. The COUNTY will provide written comments at the meeting. Comments from the meeting will be documented in meeting minutes and incorporated as applicable in the final version of the Master Plan Report within two weeks of the review meeting.

Deliverable(s):

- 13.1 – Draft master plan report
- 13.2 – Minutes from review meeting on draft master plan report
- 13.3 – Final master plan report

M/WBE PARTICIPATION

As described in Section 7.5 of the Contract, SBE participation is included in Attachment C under this Authorization. The attached Schedule 1 defines the SBE participation.

- | | |
|-----------------------|--------------------------------|
| ATTACHMENT – A | Budget Summary |
| ATTACHMENT – B | Project Schedule |
| ATTACHMENT – C | SBE Schedules 1 & 2 |
| ATTACHMENT – D | Location Map |

ATTACHMENT B
PROJECT SCHEDULE

Schedule

Task No.	Description	ESTIMATED PROJECT SCHEDULE																	
		2012												2013					
		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J
1	Project kick-off																		
2	Renewal & replacement improvements																		
3	WW service area																		
4	Population projections																		
5	WW flow and loads																		
6	Hydraulic modeling																		
7	Reliability analysis																		
8	I & I assessment																		
9	Regulatory overview																		
10	O&M performance report																		
11	Capacity analysis / plant optimization																		
12	Implementation plan																		
13	Master plan report																		

Assumes a notice to proceed in July 2012; total project duration is estimated to be 12 months

ATTACHMENT C
SBE SCHEDULE 1

LIST OF PROPOSED SBE-M/WBE PRIME / SUBCONTRACTORS

PROJECT NAME: Glades Wastewater Master Plan

PROJECT NUMBER: 12-068

NAME OF PRIME BIDDER: Hazen and Sawyer, P.C.
 CONTACT PERSON: Albert Muniz, P.E.
 BID OPENING DATE: n/a

ADDRESS: 2101 NW Corporate Boulevard, Boca Raton, FL 33431
 PHONE No.: (561) 997-8070 FAX No.: (561) 997-8159
 DEPARTMENT: n/a

PLEASE IDENTIFY ALL APPLICABLE CATEGORIES

Name, Address and Telephone Number of Minority Contractor	(Check one or both Categories)		Dollar Amount					
	Minority Business	Small Business	Black	Hispanic	Women	Caucasian	Other (Please Specify)	
Hillers Electrical Engineering, Inc.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	\$0	\$25,500	\$0	\$0	\$0	
C Solutions, Inc.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	\$38,100	\$0	\$0	\$0	\$0	
	<input type="checkbox"/>	<input type="checkbox"/>	\$0	\$0	\$0	\$0	\$0	
	<input type="checkbox"/>	<input type="checkbox"/>	\$0	\$0	\$0	\$0	\$0	
	<input type="checkbox"/>	<input type="checkbox"/>	\$0	\$0	\$0	\$0	\$0	
PRIME CONTRACTOR TO COMPLETE:		\$243,024	TOTAL	\$38,100	\$25,500	\$0	\$0	\$0

BID PRICE: \$ 317,000.00

Total Value of SBE Participation: \$63,600

20.06%

NOTE:

1. The amount listed on this form for a Subcontractor must be supported by price or percentage included in Schedule 2 or a proposal from each Subcontractor listed in order to be counted toward goal statement.
2. Firms may be certified by Palm Beach County as an SBE and/or M/WBE. If firms are certified as both an SBE and a M/WBE, please indicate the dollar amount under the appropriate category.
3. M/WBE information is being collected for tracking purposes only.

ATTACHMENT C
SBE Schedule 2

LETTER OF INTENT TO PERFORM AS AN SBE OR M/WBE SUBCONTRACTOR

PROJECT NO.: WUD 12-068 PROJECT NAME: Glades Wastewater Master Plan

TO: Hillers Electrical Engineering, Inc.
(Name of Prime Bidder)

The undersigned is certified by Palm Beach County as a(n) – (check one or more, as applicable):

Small Business Enterprise Minority Business Enterprise

Black Hispanic Women Caucasian Other (please specify)

Date of Palm Beach County Certification: 9/27/2012

The undersigned is prepared to perform the following described work in connection with the above project at the following price \$ 25,500
(Sub-consultant's fee)

(Specify in detail, particular work items or parts thereof to be performed):

Line Item / Lot No.	Item Description	Qty / Units	Unit Price	Total Price
1	Glades Wastewater Master Plan	1	n/a	\$25,500

And will enter into a formal agreement for work with you conditioned upon your execution of a contract with Palm Beach County.

If undersigned intends to sub-subcontract any portion of this subcontract to a non-certified SBE subcontractor, the amount of any such subcontract must be state: \$ 0.00

The undersigned subcontractor understands that the provision of this form to prime bidder does not prevent subcontractor from providing quotations to other bidders

Hillers Electrical Engineering, Inc.
(Print Name of SBE-M/WBE Sub-contractor)
By: [Signature]
(Signature)
Paul Hillers, President
(Print name / title of person executing on behalf of SBE-M/WBE Subcontractor)
Date: 6/20/12

ATTACHMENT C
SBE Schedule 2

LETTER OF INTENT TO PERFORM AS AN SBE OR M/WBE SUBCONTRACTOR

PROJECT NO.: WUD 12-068 PROJECT NAME: Glades Wastewater Master Plan

TO: C Solutions, Inc.
(Name of Prime Bidder)

The undersigned is certified by Palm Beach County as a(n) – (check one or more, as applicable):

Small Business Enterprise Minority Business Enterprise

Black Hispanic Women Caucasian Other (please specify)

Date of Palm Beach County Certification: _____

The undersigned is prepared to perform the following described work in connection with the above project at the following price \$ 38,100
(Sub-consultant's fee)

(Specify in detail, particular work items or parts thereof to be performed):

Line Item / Lot No.	Item Description	Qty / Units	Unit Price	Total Price
1	Glades Wastewater Master Plan	1	n/a	\$38,100

And will enter into a formal agreement for work with you conditioned upon your execution of a contract with Palm Beach County.

If undersigned intends to sub-subcontract any portion of this subcontract to a non-certified SBE subcontractor, the amount of any such subcontract must be state: \$ 0.00

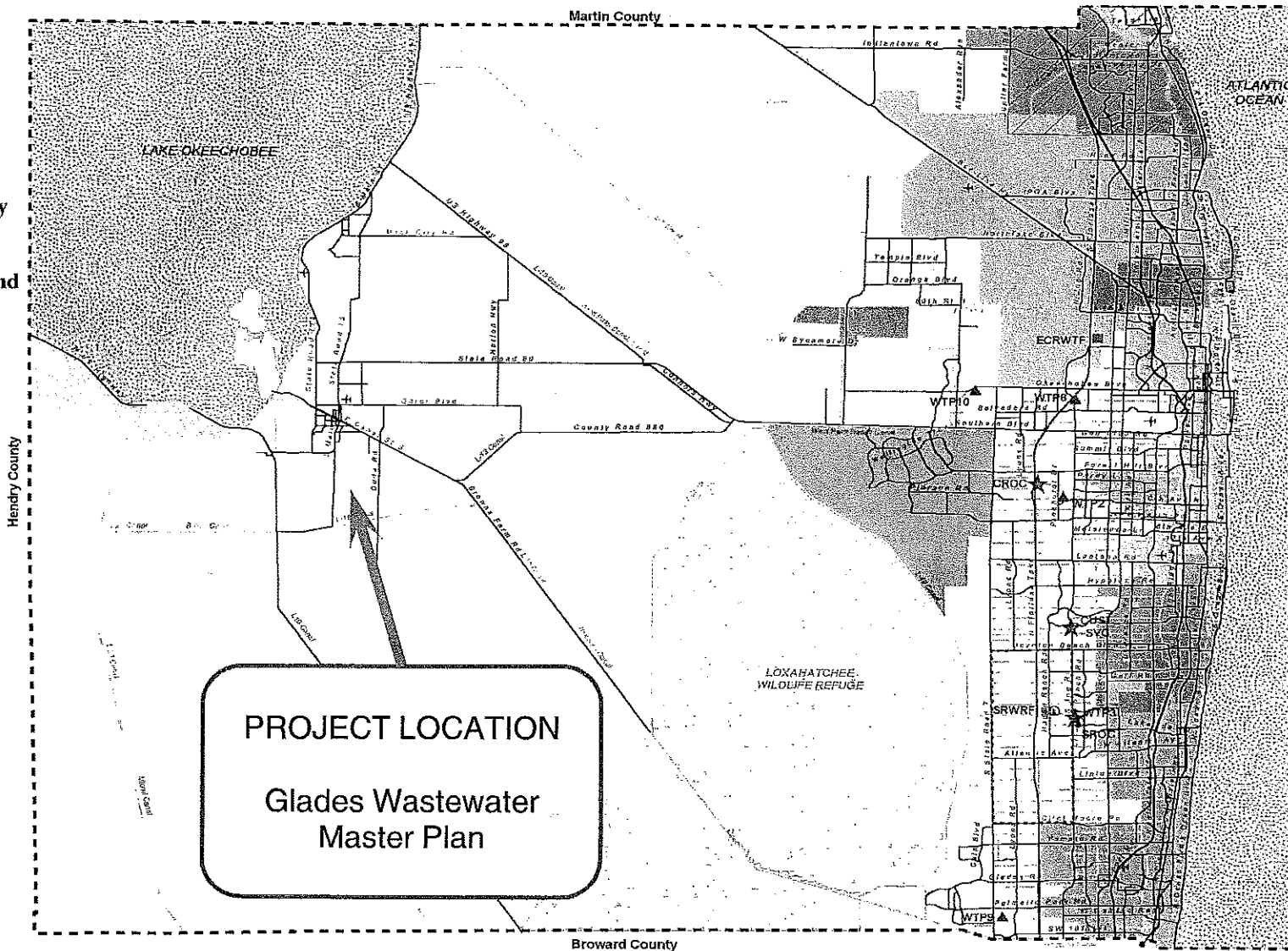
The undersigned subcontractor understands that the provision of this form to prime bidder does not prevent subcontractor from providing quotations to other bidders

C Solutions Inc.
(Print Name of SBE-M/WBE Sub-contractor)
By: [Signature]
(Signature)
Mark Drummond / President
(Print name / title of person executing on behalf of SBE-M/WBE Subcontractor)
Date: 6/21/2012



**Palm Beach County
Water Utilities
Department
Service Area (SA) and
Major Facilities**

- Legend**
- P.B.C.W.U.D. SA
 - - - - Mandatory Reclaimed SA
 - - - - Palm Beach County Limits
 - ★ Administration
 - ☒ Water Reclamation Facility
 - ▲ Water Treatment Facility
 - ⊙ Wetlands



PROJECT LOCATION
Glades Wastewater
Master Plan

EXHIBIT - B

AUTHORIZATION STATUS REPORT

SUMMARY OF STATUS OF
REQUESTS FOR AUTHORIZATION

Auth. No.	Description	Status	Project Total Amount	Date Approved	WUD No. Assigned
1	Advanced Wastewater Treatment Technical Memorandum	Cancelled	\$0.00	---	11-002
2	Feasibility of Receiving Reclaimed Water from Broward County & Conveying to Designated Sites in PBC - Phase 1	Approved	\$25,258.00	08/09/11	11-131
3	Wastewater Master Plan	Approved	\$245,114.00	10/18/11	11-143
4	SRWRF Headworks Bypass	Pending	\$188,178.00	05/15/12	12-015
5	Glades Wastewater Master Plan	Pending	\$317,000.00	---	12-068
	Total		\$775,550.00		

EXHIBIT - C

AUTHORIZATION STATUS REPORT

**SUMMARY OF STATUS OF
SMALL BUSINESS TRACKING SYSTEM**

	Total	SBE
Current Proposal		
Value of Authorization No. 5?	\$317,000.00	---
Value of SBE Letters of Intent	\$63,600.00	\$63,600.00
Actual Percentage	20.06%	---
Signed Authorizations		
Total Value of Authorizations	\$458,550.00	---
Total Value of SBE Signed Subcontracts	\$73,700.00	\$73,700.00
Actual Percentages	16.07%	---
Signed Authorizations Plus Current Proposals		
Total Value of Authorizations	\$775,550.00	---
Total Value of SBE Signed Subcontracts & Letters of Intent	\$137,300.00	\$137,300.00
Actual Percentages	17.70%	17.70%
Goal	20.00%	17.70%

BOARD OF COUNTY COMMISSIONERS
 PALM BEACH COUNTY, FLORIDA
BUDGET TRANSFER

BGEX 764-062012*01654

FUND 1542 HUD Community Challenge

Use this form to provide budget for items not anticipated in the budget.

ACCT.NUMBER	ACCOUNT NAME	ORIGINAL BUDGET	CURRENT BUDGET	INCREASE	DECREASE	ADJUSTED BUDGET	EXPENDED/ ENCUMBERED AS OF 06/20/2012	REMAINING BALANCE
<u>EXPENDITURES</u>								
720-IGUA-3401	Other Contractual Services	0	600,000		97,000	503,000	0	503,000
764-9901-9943	Res For Economic Development	0	169,209	97,000		266,209	0	266,209
				<u>97,000</u>	<u>97,000</u>			
TOTALS								

Administration
 INITIATING DEPARTMENT/DIVISION
 Administration/Budget Department Approval
 OFMB Department - Posted

Signatures _____
Brenda Beaudin
 Date 7/17/12

By Board of County Commissioners
 At Meeting of _____
 Deputy Clerk to the
 Board of County Commissioners