

**PALM BEACH COUNTY  
BOARD OF COUNTY COMMISSIONERS**

**AGENDA ITEM SUMMARY**

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<b>Meeting Date:</b>	<b>June 5, 2007</b>	<b>Consent [X]</b>	<b>Regular [ ]</b>
		<b>Public Hearing [ ]</b>	

**Submitted By:** Water Utilities Department  
**Submitted For:** Water Utilities Department

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**I. EXECUTIVE BRIEF**

**Motion and Title:** Staff recommends motion to approve: Consultant Services Authorization No. 20 to the contract with Camp Dresser & McKee, Inc. (CDM) (R-2005-0774) for engineering services for the Water Treatment Plant No. 2 Backwash Recovery System and Lime Sludge Handling Facility in the amount of \$391,198.

**Summary:** This Consultant Services Authorization includes design, permitting, and bidding services for the Water Treatment Plant No. 2 Backwash Recovery System and Lime Sludge Handling Facility. Filter backwash recovery will save approximately 300,000 gallons of water per day and reduce wellfield pumpage. Lime sludge handling facilities will reduce dust and provide for more efficient handling of lime sludge. The contract with CDM includes the 20.0% overall Small Business Enterprise (SBE) participation goal established by the Palm Beach County SBE Ordinance (No. 2002-064). This Consultant Services Authorization includes 22.75% overall participation. The consultant's cumulative SBE participation, including this authorization, is 24.68% overall.

(WUD Project No. 07-134)

District 2

(MJ)

**Background and Justification:** Backwash recovery is required by the Florida Department of Environmental Protection as Water Treatment Plant No. 2 does not have a permit to discharge backwash water to the Lake Worth Drainage District L-10 canal. The recovery of filter backwash water will reduce wellfield pumpage by approximately 300,000 gallons per day. The lime sludge handling facilities will reduce dust and provide for better drying and handling of lime sludge which is commonly mixed into road sub-base to improve density. On April 19, 2005, the Board approved a contract for Professional Consulting Engineering Services with CDM (R-2005-0774) for Water Plant & Water Resources Engineering Services. This Consultant Service Authorization provides engineering services for design, permitting, and bidding of Water Treatment Plant No. 2 Backwash Recovery System and Lime Sludge Handling Facility

**Attachments:**

- 1. Two (2) Original Consultant Service Authorization No. 20
- 2. Location Map

Recommended By:  5/16/07  
Department Director Date

Approved By:  5/23/07  
Assistant County Administrator Date

**II. FISCAL IMPACT ANALYSIS**

**A. Five Year Summary of Fiscal Impact:**

Fiscal Years	2007	2008	2009	2010	2011
Capital Expenditures	<u>\$391,198.00</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
External Revenues	<u>0</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>
<b>NET FISCAL IMPACT</b>	<b><u>\$391,198.00</u></b>	<b><u>0</u></b>	<b><u>0</u></b>	<b><u>0</u></b>	<b><u>0</u></b>
# ADDITIONAL FTE POSITIONS (Cumulative)	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

**Budget Account No.:** Fund 4011 Dept 721 Unit W006 Object 6541

Is Item Included in Current Budget? Yes X No     

Reporting Category N/A

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

One time capital expenditure from the user fees and balances brought forward.

**C. Department Fiscal Review:**                     Debra M Vest                    

**III. REVIEW COMMENTS**

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

                    John Dink                    5-22-07                      
 OFMB  
 CN 5/21/07  
 ID 5/21/07

                    Dan J. Jacob                    5/22/07                      
 Contract Development and Control  
 E Jones 5/22/07

**B. Legal Sufficiency:**

                    W. W.                    5/23/07                      
 Assistant County Attorney

**This item complies with current County policies.**

The contract with EDM establishes a 20% SBE commitment.

**C. Other Department Review:**

\_\_\_\_\_  
 Department Director

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

**AUTHORIZATION NO. 20**

**CONSULTANT SERVICES AUTHORIZATION**

**Project No. WUD 07-134**

**Budget Line Item No. 4011-721-W006-6541**

**Project Title: Water Treatment Plant No. 2 – Preliminary Design, Final Design,  
Bidding and Permitting Services**

**District No.: 2**

**THIS AUTHORIZATION No. 20**, to the Contract for Consulting/Professional Services dated April 19, 2005 with an effective date of June 1, 2005 (Resolution/Document R-2005-0774), 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 22.75% SBE participation. The cumulative SBE participation, including this authorization is 24.68% overall. Additional authorizations will be utilized to meet or exceed the stated overall participation goal.

1. **CONSULTANT: Camp Dresser & McKee Inc.**
2. **ADDRESS: 1601 Belvedere Rd., Suite 211 S., West Palm Beach, Florida 33406**
3. Description of Services to be provided by the Consultant:  
**Water Treatment Plant No. 2 – Preliminary Design, Final Design, Bidding and Permitting Services, as more fully described in EXHIBIT "A".**
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 to be paid to the Consultant for providing the requested services shall be:
  - A. Computation of time charges plus expenses, not to exceed N/A.
  - B. Fixed price of \$ 391,198.
7. This Authorization may be terminated by the County without cause or prior notice. In the event of termination not the fault of the Consultant, the Consultant shall be compensated for all services performed through the date of termination, together with reimbursable expenses (if applicable) then due.

PROJECT NO.: WUD 07-134

AUTHORIZATION NO. 20

Budget Line Item No. 4011-721-W006-6541

8. EXCEPT AS HEREBY AMENDED, CHANGED OR MODIFIED, all other terms, conditions and obligations of the Contract dated April 19, 2005 with an effective date of June 1, 2005 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

A POLITICAL SUBDIVISION OF  
THE STATE OF FLORIDA  
BOARD OF COUNTY  
COMMISSIONERS OF PALM  
BEACH COUNTY, FLORIDA

FIRM: Camp Dresser & McKee Inc.

Signed: \_\_\_\_\_

Typed Name: Donald G. Munksgaard, P.E.

Title: Senior Vice President

Date: 5/2/07

ATTEST:

(Signed) \_\_\_\_\_

\_\_\_\_\_  
Addie Greene, Chairperson

ATTEST:

Sharon Bock, Clerk & Comptroller  
The Circuit Court

\_\_\_\_\_  
(Deputy Clerk)

APPROVED AS TO FORM AND  
LEGAL SUFFICIENCY:

\_\_\_\_\_  
(County Attorney)

BOJ 5/7/07

EXHIBIT A

SCOPE OF SERVICES

NEW SPENT BACKWASH WATER RECOVERY SYSTEM AND SPENT LIME SLUDGE  
HANDLING FACILITY AT WATER TREATMENT PLANT No. 2  
PRELIMINARY DESIGN, FINAL DESIGN, BIDDING AND PERMITTING SERVICES

AUTHORIZATION NO. 20

WUD 07-134

Camp Dresser & McKee Inc. (hereinafter referenced as ENGINEER) shall perform the following described engineering services related to the Preliminary Design, Final Design, Bidding and Permitting services for the evaluation and design of spent backwash water recovery system and a spent lime sludge processing facility at Water Treatment Plant (WTP) No. 2. The design will consider the use of ferric chloride as a coagulant with the subsequent presence of iron hydroxide and iron humate material in the spent lime sludge. Such materials may at high dosage adversely impact the dewatering capability of the spent lime sludge and can also restrict disposal options for land application of the dewatered spent lime sludge. Recovery of backwash water will lower the raw water requirement and reduce wellfield pumpage. Studies at WTP No. 8 have found no adverse impacts through the use of ferric chloride in the sludge.

WTP No. 2 is a 14.5 million gallon per day (mgd) capacity lime softening plant with two separate process trains of 3-mgd capacity and 11.5-mgd capacity, respectively. The facility currently utilizes lime sludge lagoons (open pits) for stockpiling and partial dewatering of the spent lime sludge. Palm Beach County Water Utilities Department (PBCWUD) periodically dredges the spent lime sludge lagoons and then stockpiles the sludge on-site until it reaches a "semi-dry" state. The stockpiled spent lime sludge is then periodically hauled by truck off-site and ultimately disposed of by land spreading. The spent backwash water also is currently directed to one of the two lime sludge lagoons. This water combines with supernatant water from the dewatered spent lime sludge and either percolates to groundwater or evaporates.

In general, this authorization is intended to evaluate the current spent backwash water and spent lime sludge handling processes; evaluate treatment alternatives that comply with the Backwash Recycle Rule and other appropriate regulations, and design new spent backwash and spent lime sludge handling facilities to include the following:

1. A spent backwash water recovery pond with a water recovery pump station to recycle spent backwash to the head of the plant (prior to first chemical addition) and facilities to allow periodic removal of accumulated solids contained in the spent backwash. This system will also include all necessary piping, valves, meters, appurtenances, electrical systems, and instrumentation/control systems for recycling backwash at an operator selected rate using pumps with VFD's;

2. A spent lime sludge handling facility for processing the spent lime sludge blow-down from the softening units. This sludge processing facility will include a new spent lime sludge collector pump station, a new spent lime sludge thickener, and a new thickened spent lime sludge pump station and a new vacuum drum filter dewatering facility. This system will also include all necessary piping, valves, appurtenances, electrical systems, and instrumentation/control systems. The vacuum filter operation shall be automated with controls and video cameras reporting back to the main control building to minimize manpower. Excess water from the sludge thickener and vacuum filter operations shall be recycled. The site plan shall maintain an emergency sludge pond and backwash pond that will remain connected to the adjacent LWDD canal system; and
3. Improvements for emergency power system:
  - a. Changing the hypochlorite 750 KW generator radiator to a heat exchanger system or replacing the radiator if an acceptable replacement can be found.
  - b. Connecting wells 2W-3 to 2W-7 to the hypochlorite building emergency generator with normal power from the plant main transformer.

The engineering services will generally include the following:

1. Initial Kickoff Meeting with PBCWUD personnel to discuss project, PBCWUD expectations, sources of information, list of deliverables, and anticipated schedule;
2. Compilation and evaluation of spent lime sludge quality and quantity data as well as compilation and evaluation of spent backwash quantity and quality at WTP No. 2;
3. An evaluation of appropriate regulatory guidelines to include local, state, and federal regulations;
4. A preliminary design of a spent backwash recovery system and a spent lime sludge handling system to include appropriate Preliminary Design Report;
5. A final design of the spent backwash recovery and spent lime sludge handling facilities including Development Review Officer approval of the site plan, final drawings, and final specifications;
6. Permitting of the facility to include a Palm Beach County Health Department permit, site plan permitting, Palm Beach County Building Department permits, and other necessary permits. SFWMD and LWDD drainage permit modification;
7. Obtain and prepare a capital construction cost estimates; and
8. Bidding services and award of contract.

### **Task 1.0 - Kickoff Meeting**

This task provides for ENGINEER's preparation for and participation in a Kickoff Meeting as well as identification of required data needs, compilation of available data

and existing drawings, identification of any additional survey and geotechnical needs required for the final design and any site-specific studies to support the required data request.

***Subtask 1.1 - Kickoff Meeting***

The ENGINEER will prepare for and attend a Kickoff Meeting with PBCWUD staff for the purpose of discussing PBCWUD preferred direction for the project, sources of required data, lines of communication, schedule considerations and expectations, and general nature and detail for the Preliminary Design and Final Design efforts. ENGINEER will bring only the most critical staff to the meeting to expedite the meeting and minimize engineering fees. Prior to the meeting, ENGINEER will prepare and distribute ten (10) copies of the meeting agenda. ENGINEER will prepare and distribute ten (10) copies of the meeting minutes.

***Subtask 1.2 - Data Compilation and Evaluation***

The ENGINEER will request, receive, compile, and evaluate required data to establish quantities and qualities for the spent backwash water and spent lime sludge. This evaluation will consider the presence of iron hydroxide and iron humate materials in the spent lime sludge. The potential impacts of regulatory guidelines on spent backwash water recycle rates and location of return will be identified.

***Subtask 1.3 - Specific-Site Studies***

As necessary, ENGINEER will coordinate with and assist PBCWUD personnel with any site-specific studies necessary to further determine characteristics of the spent backwash water and/or the spent lime sludge necessary to establish suitable and cost-effective design parameters. Said studies could include sludge density tests, spent backwash water solids settling rates, and collection/shipping of spent lime sludge samples to equipment vendors.

**Task 2.0 - Preliminary Design of Spent Backwash Water Recovery and Spent Lime Sludge Handling - Process and Equipment Modifications**

***Subtask 2.1 - Geotechnical Investigations***

The ENGINEER will provide the following services related to geotechnical (soil) investigations through a subcontractor:

1. Review any previous geotechnical investigations, provided by PBCWUD, at the WTP No. 2 site. Perform additional subsurface explorations at the WTP No. 2 site necessary for the development of design criteria for the anticipated new structures. A maximum of five borings at depths ranging from 10 to 75 feet have been assumed;
2. Perform standard penetration tests and split-spoon sampling within the borings at regular intervals;
3. Perform classification tests on selected samplings obtained from the borings;
4. Visually classify soil samples in general accordance with the United Soil Classification System and prepare Test Boring Records;

5. Summarize the results of the geotechnical investigations and provide recommendations for surface preparation and design of the proposed structures; and
6. Review site and foundation preparation specifications and revise as appropriate for site-specific requirements.

#### *Subtask 2.2 - Topographic Surveys*

The ENGINEER will provide the following services related to topographic survey through a subcontractor:

1. Review previous topographic and boundary mapping, provided by PBCWUD, of the WTP No. 2 site and recommend additional necessary surveying;
2. Determine locations and elevations of existing structures, roadways, visible utilities and storm drains, adjacent property lines, and horizontal and vertical control for construction;
3. Determine locations of underground utilities that could interfere with construction of the new facilities and request potholes by COUNTY;
4. Convert survey information to digital format for use on AutoCAD, Release 2007; and
5. Provide construction coordinate horizontal control and benchmark vertical control for contractor using Florida Plane Coordinates and datum of 1929.

#### *Subtask 2.3 - Preliminary Site Plan Approval*

The ENGINEER will prepare and submit a Preliminary Site Plan report including 24" x 36" drawings and sketches addressing community development issues such as setbacks, landscaping (to be designed by COUNTY), noise abatement, odor control, construction activities restrictions, dust from lime sludge, stormwater control, and other issues pertaining to the planning and zoning process. The ENGINEER will utilize any previous development orders for the site in conjunction with existing planning and zoning ordinances as well as discussions with Palm Beach County (COUNTY) planning and zoning officials as the basis for the Preliminary Site Plan. The ENGINEER will submit draft plan to the appropriate COUNTY agencies, receive comments, and modify site plan as necessary.

#### *Subtask 2.4 - Preliminary Design Report*

The ENGINEER will provide the following services related to the preparation of a Preliminary Design Report (PDR):

1. Prepare a preliminary hydraulic profile to determine necessary piping sizes and pumping pressures;
2. Prepare process design criteria based on actual spent backwash water and spent lime sludge data;



3. Establish plans and elevations for the spent backwash water recovery facility, spent lime sludge handling facility, blowdown sludge collector pump station, thickened sludge pump station, and other required facilities. Develop options and costs for efficient sludge handling with optimizing dust control;
4. Prepare a preliminary layout of equipment and structures for each individual structure/building;
5. Prepare preliminary architectural plans and elevation drawings to show building/structures style and interior/exterior materials;
6. Prepare a preliminary site layout showing approximate facility/building location, landscaping, grading, drainage (stormwater control), roadways, and demolition areas;
7. Coordinate liquid and sludge (raw and thickened) pipelines, and electrical and control wiring locations with PBCWUD staff. Prepare yard-piping layout including chemical line trench locations. Coordinate with the ferric chloride addition plans which is a separate scope of work by CDM;
8. Based upon the geotechnical report, develop design criteria for facility/building foundations, select the structural system, and determine appropriate design codes and structural load;
9. Develop a preliminary process instrumentation and control diagram (P&ID) with schematic to show recommended control and monitoring system configuration and single line electrical diagrams. The scope of work shall include modification of the wellfield emergency power to be feed from the hypochlorite building;
10. Develop a preliminary schedule for new facility/building design, new facility construction, and existing facility demolition;
11. Develop preliminary opinion of probable capital construction cost;
12. Identify necessary permits and anticipated permit conditions;
13. Develop implementation schedule identifying major tasks milestone dates;
14. Prepare and submit draft PDR (10 copies) to PBCWUD for review and proceed with the preliminary site plan approval process. Submit copies of the draft PDR to the Palm Beach County Health Department for concurrent review;
15. Conduct one meeting with PBCWUD staff to review comments on the draft report; and

16. Prepare and submit final PDR (10 copies) to PBCWUD incorporating written comments from PBCWUD and Preliminary Site Plan approval comments as described in Task 2.3.

### **Task 3.0 - Preparation of Contract Documents**

This task provides for the preparation of drawings and specifications; conducting formal reviews of the contract documents at certain completion levels, and developing an opinion of probable construction cost. Specific work products will include three draft contract document sets during three different levels of completion. Drawing list is attached.

#### ***Task 3.1 - Preparation of Contract Documents***

The ENGINEER will prepare final construction drawings and specifications suitable for inviting construction bids for this project. The technical specifications will utilize CSI's sixteen divisions, three-part format. The design shall be complete including (as applicable to the project) site improvements, appurtenances, process and ancillary equipment, accessories, wiring, piping, foundations, substructures, electrical controls, instrumentation, and all mechanical facilities. The design shall also include detailed drawings, specifications, and other documentation as may be necessary for the project. Front-End (Division 0) Contract Documents shall be prepared by PBCWUD for use by ENGINEER. The contract drawings will include location maps, site plans, civil drawings, mechanical drawings, electrical and instrumentation drawings and associated details. Existing soil borings shall be shown on the site plans and provided in a soils report for the bidders. CDM will recommend additional soil borings if the existing boring do not provide adequate coverage for proper soil design. CDM will review the soiling borings and note any unsuitable conditions requiring remediation.

#### ***Task 3.2 - Periodic Review of Work Progress***

At approximately the 60%, and 90% completion levels of the contract documents, the ENGINEER will submit five sets of progress drafts of the contract documents to PBCWUD staff for review; schedule and conduct a review meeting with the PBCWUD staff; and address appropriate PBCWUD review comments.

#### ***Task 3.3 - Final Contract Document Submittal***

ENGINEER will submit five (5) sets of final contract documents to the PBCWUD staff for any final review comments two weeks prior to the initial bid advertisement for the Contract.

ENGINEER shall provide PBCWUD an electronic copy of the AutoCAD 2007 disk and PDF plot files used by ENGINEER to develop the final Contract Documents and an electronic copy of the record drawings. The hard copy of the Contract Documents containing the ENGINEER's professional engineering stamp shall take precedence over the AutoCAD disk.

#### ***Task 3.4 - Probable Construction Cost***

The ENGINEER will prepare an opinion of the probable construction cost at the 60% and 90% completion levels for each Contract. The final estimate of probable construction

cost shall be delivered to the PBCWUD staff prior to the openings for bids for each Contract.

***Task 3.5 - Site Approval Modifications***

ENGINEER will prepare and submit a Site Plan approval modification including 24" x 36" drawings and sketches addressing community development issues such as setbacks, landscaping, noise abatement, odor control, construction activities restrictions, stormwater control, and other issues pertaining to the planning and zoning process. ENGINEER will utilize any previous development orders for the site in conjunction with existing planning and zoning ordinances as well as discussions with planning and zoning officials as the basis for the Preliminary Site Plan. ENGINEER will submit a draft plan to the appropriate COUNTY agencies, receive comments, and modify site plan as necessary. The scope of services is based on the assumption that the plan will be approved through administrative approval process. Public hearings are not budgeted for this task.

**Task 4.0 - Services During Bidding**

This task provides for services during bidding and includes, the distribution of Contract Documents to interested parties, conducting pre-bid meetings, preparation of addenda, bid evaluation, recommendation for award, and preparation of contract documents for execution by PBCWUD and the selected construction Contractor for the Contract.

***Task 4.1 - Bidding Services Water Treatment Plant No. 2, Spent Lime Sludge Dewatering Facility and Spent BackWash Water Recovery Facility***

The ENGINEER will provide the following services during bidding:

1. Answer questions posed by prospective bidders according to the guidelines established in the Contract Documents;
2. Attend the pre-bid meeting and pre-bid site visit for the Contract; and
3. Prepare and distribute required addenda to plans, specifications, and Contract Documents prior to receipt of bids for the Contract.

**Task 5.0 - Permitting**

***Task 5.1 - Permitting Services***

The ENGINEER will prepare applications for permits as may be required and related to this Contract. Permit-related work shall include furnishing required data, drawings, and other information requested and assisting PBCWUD in obtaining required permit approvals. The ENGINEER will submit permit applications to the PBCWUD for review and meet with the PBCWUD as required to discuss PBCWUD's review comments. The ENGINEER will revise the applications as required and submit to appropriate regulatory agencies for review and approval. The permits to be obtained could include the following permits:

- Florida Department of Environmental Protection (FDEP) will require a permit modification to construct the water plant improvements. The FDEP permitting

review will be undertaken by Palm Beach County Health Department (PBCHD), which has been delegated this responsibility.

- Florida Department of Environmental Protection (FDEP) permit for wastewater pump station for the vacuum filter bathroom.
- SFWMD and LWDD drainage permit modifications including discharge from the emergency backwash and lime sludge ponds.
- SFWMD and LWDD dewatering permit.
- The building permit process will probably require project approval during the design phase from various COUNTY entities before the PBCWUD will apply for a building permit. The required number of signed and sealed sets of drawings will be submitted to the appropriate COUNTY building department at the start of the bidding process to begin the building permit process.

#### **OTHER SERVICES NOT INCLUDED IN THIS SCOPE OF SERVICES**

The following list of items are not included in this Scope of Services, but will be addressed in separate proposals or will be negotiated separately with the COUNTY, if required:

- A. Excavation for field verification of the actual locations of existing underground utilities and structures. If field verification is necessary, excavation shall be provided by the COUNTY as directed by the ENGINEER;
- B. Services associated with assisting in the review and evaluation of bid protests received by the COUNTY or the ENGINEER which require action in accordance with the COUNTY's general bid protest procedures;
- C. Services related to the rejection and re-bidding of the Project in accordance with the Engineering Services Contract unless rejection and re-bidding is required as a result of errors by the ENGINEER;
- D. Services associated with assisting the COUNTY in the review and evaluation of patent-related disputes, issues, or claims including preparing to serve or serving as a consultant or witness for the COUNTY in litigation, arbitration, public or private hearings, or other legal or administrative proceedings involving patent-related disputes, issues, or claims;
- E. Services associated with construction including general construction administration, inspection, operating manuals and start-up; and
- F. Additional services in connection with the Project not otherwise provided for in this Scope of Services.

## **COUNTY RESPONSIBILITIES**

COUNTY shall provide the following to the ENGINEER in a timely manner:

- Available geotechnical and/or topographical surveys not currently in the ENGINEER's possession;
- Fees for permits;
- Review of ENGINEER work products; and
- Standard Front-End (Division 0) Contract Documents.

## **LABOR HOUR ESTIMATE AND PROJECT COST ESTIMATE**

See Attachment A for labor hours estimate and project cost estimate for the lump sum contract.

**Attachment A - Budget**

**Attachment B - Project Schedule**

**Attachment C - SBE Schedules 1 and 2**

**Attachment D - Area Map**

## Drawing List

### General

G-1	Cover
G-2	Index and notes
G-3	Abbreviations and symbols
G-4	Process Schematic
G-5	Hydraulic Profile

### Civil

C-1	Existing site plan
C-2	Proposed site plan
C-3	Yard Piping plan
C-4	Yard Piping plan
C-5	Backwash Piping Profile
C-6	Paving Grading and Drainage Plan
C-7	Erosion Control Plan
C-78	Site Plan - Exhibit A(Bldg Department)

CD-1	Details
CD-2	Details
CD-3	Details
CD-4	Details

### Architectural

A-1	Index and Notes
A-2	Vacuum Filter Bldg - Floor Plan - Elev xx
A-3	Vacuum Filter Bldg - Floor Plan - Elev xx
A-4	Vacuum Filter Bldg - Roof Plan
A-5	Vacuum Filter Bldg - Sections
A-6	Vacuum Filter Bldg - Elevations
A-7	Vacuum Filter Bldg - Elevations
AW-1	Vacuum Filter Bldg - Wall Details
AW-2	Vacuum Filter Bldg - Wall Details
AD-1	Vacuum Filter Bldg - Details
AD_2	Vacuum Filter Bldg - Details

# Drawing List

## Structural

S-1	Index and Notes
S-2	Vacuum Filter Bldg - Floor Plan - Elev xx
S-3	Vacuum Filter Bldg - Floor Plan - Elev xx
S-4	Vacuum Filter Bldg - Roof Plan
S-5	Vacuum Filter Bldg - Sections
S-6	Vacuum Filter Bldg - Elevations
S-7	Vacuum Filter Bldg - Elevations
S-8	Sludge Thickener - Foundation Plan
S-9	Sludge Thickener - Plan
S-10	Sludge Thickener - Sections
S-11	Washwater Recovery Pond - Foundation Plan
S-12	Washwater Recovery Pond - Plan
S-13	Washwater Recovery Pond - Sections and Detail
S-14	Washwater Recovery Pond - Sections and Detail
S-15	Sludge Storage Bin
SD-1	Details
SD-2	Details
SD-3	Details
SD-4	Details
SD-5	Details

## Mechanical

M-1	Vacuum Filter Bldg - Floor Plan - Elev xx
M-2	Vacuum Filter Bldg - Floor Plan - Elev xx
M-3	Vacuum Filter Bldg - Sections
M-4	Sludge Thickener - Plan
M-5	Sludge Thickener - Sections
M-6	Washwater Recovery Pond - Plan
M-7	Washwater Recovery Pond - Sections and Detail
M-8	Washwater Recovery Pond - Sections and Detail
M-9	Lime Slurry Pump Station
M-10	Lime Slurry Pump Station - Details
M-11	Sludge Storage Bin
MD-1	Details
MD-2	Details
MD-3	Details

## Drawing List

### Electrical

E-1	Electrical Symbols, Abbreviations, and Notes
E-2	Electrical Site Plan
E-3	Single line Power Diagram and Front View
E-4	Single line Power Diagram and Front View
E-5	MCC Front View
E-6	Elementary Diagrams
E-7	Elementary Diagrams
E-8	Control and Instrumentation Riser Diagram
E-9	Vacuum Filter Bldg - Power Plan
E-10	Vacuum Filter Bldg - Lighting Plan
E-11	Sludge Thickener - Power Plan
E-12	Sludge Thickener - Lighting Plan
E-13	Washwater Recovery Pond - Power Plan
E-14	Washwater Recovery Pond - Lighting Plan
E-15	Electrical Details
E-16	Electrical Details
E-17	Electrical Details
E-18	PanelBoard Schedule
E-19	PanelBoard Schedule
E-20	PanelBoard Schedule
E-21	Lighting Fixtures and Details

### Instrumentation

I-1	Index and Notes
I-2	PID
I-3	PID
I-4	PID
I-5	Loop Diagrams
I-6	Loop Diagrams
I-7	Loop Diagrams
I-8	Loop Diagrams
I-9	Loop Diagrams
I-10	Loop Diagrams
I-11	Loop Diagrams
I-12	Loop Diagrams
I-13	Loop Diagrams
I-14	Loop Diagrams
I-15	Loop Diagrams
I-16	Details
I-17	Details
I-18	Details



Attachment A  
 Authorization No. 20  
 Water Treatment Plant Number 2  
 Preliminary Design, Final Design, Bidding and Permitting Services

Proposal Budget Disaggregation  
 WUD 07-134

LABOR CATEGORY	RAW HOURLY RATE																TOTAL HOURS	LABOR @ 3.0 MULT
		1.1	1.2	1.3	2.1	2.2	2.3	2.4	3.1	3.2	3.3	3.4	3.5	4.1	5.1			
Officer	50.00	4	4	8	2	2	8	24	80	8	2	24	8	24	40	238	\$35,700.00	
Principal/Associate	48.00	4	8	24	8	8	12	40	120	16	4	40	12	40	60	396	\$57,024.00	
Senior Professional	42.00	16	24	40	12	12	24	80	240	24	8	80	24	24	80	688	\$86,688.00	
Professional II	30.00	24	40	16	0	0	40	120	120	40	12	120	40	40	24	636	\$57,240.00	
Professional I	25.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0.00	
Project Administration	25.00	2	2	2	2	2	2	2	8	2	0	2	2	2	2	32	\$2,400.00	
Clerk/Typist	17.00	4	8	8	4	4	4	16	40	8	4	8	4	8	4	124	\$6,324.00	
Technician/Drafter	19.00	8	12	0	4	4	16	80	480	16	8	16	16	24	12	696	\$39,672.00	
<b>TOTAL LABOR HOURS</b>		62	98	98	32	32	106	362	1,088	114	38	290	106	162	222	2,810		
<b>TOTAL LABOR DOLLARS</b>																	<b>\$285,048.00</b>	
<b>SUBCONTRACTORS</b>																		
Hillers Electrical		\$2,500						\$8,000	\$60,000						\$3,500		\$74,000	
Jean Lindsay							\$2,500					\$5,000					\$7,500	
Heller Weaver & Shremeta					\$15,000												\$15,000	
<b>SUBTOTAL SUBCONTRACTORS</b>																	<b>\$96,500</b>	
<b>SUBCONTRACTOR MARKUP (10%)</b>																	<b>\$9,650</b>	
<b>TOTAL SUBCONTRACTORS</b>																	<b>\$106,150</b>	
<b>EXPENSES</b>																		
Travel																	\$0	
Copies, Production, Postage																	\$0	
<b>TOTAL EXPENSES</b>																	<b>\$0</b>	
<b>TOTAL FEE FOR AUTHORIZATION</b>																	<b>\$391,198.00</b>	

ATTACHMENT B

PROPOSED PROJECT SCHEDULE

AUTHORIZATION NO. 20

WUD 07-134

TASK NO	DESCRIPTION	TASK DURATION (DAYS)	CUMULATIVE DURATION (DAYS)
1.1	Kickoff Meeting	15	15
1.2	Data Compilation and Evaluation	30	45
1.3	Site Specific Studies	30	75
2.1	Geotechnical Investigations	30	90
2.2	Topographic Surveys	30	90
2.3	Preliminary Site Plan Approval	60	90
2.4	Preliminary Design Report	90	120
3.1	Preparation of Contract Documents	90	210
3.2	Periodic review	30	210
3.3	Final Contract Submittals	30	210
3.4	Final Construction Cost	30	240
3.5	Site Plan Approval	60	240
4.1	Services during Bidding	45	285
5.1	Permitting	60	300

**ATTACHMENT C**

**SCHEDULE #1**

**LIST OF PROPOSED SBE-M/WBE PRIME/SUBCONTRACTORS**

PROJECT NAME:	<u>Water Treatment Plant Number 2</u>	PROJECT NUMBER:	<u>WUD 07-134</u>
	<u>Preliminary Design, Final Design, Bidding, and Permitting Services</u>		
NAME OF PRIME BIDDER:	<u>Camp Dresser &amp; McKee Inc.</u>	ADDRESS:	<u>1601 Belevedere Rd, Ste. 211S, WPB, FL 33406</u>
CONTACT PERSON:	<u>Donald G. Munksgaard</u>	PHONE NO.	<u>561-689-3336</u> FAX NO. <u>561-389-9713</u>
BID OPENING DATE:	<u></u>	DEPARTMENT	<u>Water Utilities / Engineering</u>

**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. 23257 State Rd. 7, Ste 100 Boca Raton, FL 33428 (561) 451-9165	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	\$	\$ 74,000.00	\$	\$	\$
Heller Weaver & Shremeta 3105 E. 1st Street, Suite 4 Delray Beach, FL 33483 (561) 243-8700	<input type="checkbox"/>	<input checked="" type="checkbox"/>	\$	\$	\$	\$ 15,000.00	\$
	<input type="checkbox"/>	<input type="checkbox"/>	\$	\$	\$ -	\$	\$
	<input type="checkbox"/>	<input type="checkbox"/>	\$	\$	\$	\$	\$
	<input type="checkbox"/>	<input type="checkbox"/>	\$	\$	\$	\$	\$
<b>PRIME CONTRACTOR TO COMPLETE:</b>	\$ 302,198.00	<b>TOTAL</b>	\$ -	\$ 74,000.00	\$ -	\$ 15,000.00	\$ -
<b>BID PRICE:</b> <u>\$ 391,198.00</u>	<b>Total Value of SBE Participation:</b>		<u>\$ 89,000.00</u>				

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

**LETTER OF INTENT TO PERFORM AS A MINORITY/SUBCONTRACTOR**

TO: Camp Dresser & McKee  
(Name of Prime or General Bidder)

The undersigned intend to perform work in connection with the above project as (check one):

\_\_\_\_\_ an individual  \_\_\_\_\_ a corporation

\_\_\_\_\_ a partnership \_\_\_\_\_ a joint venture

\_\_\_\_\_ The undersigned is certified by Palm Beach County as an M/WBE. *reciprocity w/ State of Florida*

Certification date Feb 01, 2007

Attach proof of M/WBE certification, either letter of certificate form certifying agency if M/WBE firm is not listed in current Palm Beach County Directory.

OR

\_\_\_\_\_ The undersigned agrees to apply to Palm Beach County for certification as an M/WBE within 7 days of bid opening.

The undersigned is prepared to perform the following described work in connection with the above project (specify in detail particular work items or parts thereof to be performed):

\_\_\_\_\_ at the following price: \$74,000.00  
(Amount must match subcontractor's quote)

You have projected the following commencement date of such work, and the undersigned is projecting completion of such work as follows:

<u>Items</u>	<u>Projected Commencement Date</u>	<u>Projected Completion Date</u>
	TBD	TBD

0 % of the dollar value of the subcontract will be sublet and/or awarded to non-minority contractors and/or non-minority suppliers. The undersigned will enter into a formal agreement for the work with you conditioned upon your execution of a contract with Palm Beach County.

Hillers Electrical Engineering, Inc.  
(Name of Minority Contractor)

Date: May 01, 2007

By: P. Hiller  
Signature of Minority/Women Contractor

*Florida Statewide  
&  
Inter-Local Certification*



Florida Department of Management Services  
Office of Supplier Diversity

**Hillers Electrical Engineering, Inc.**

is certified as a **Minority Business Enterprise**  
under the provisions of Chapter 287, Florida Statutes and Inter-Local Agreement,  
for a one year period from February 1, 2007 to February 1, 2008

  
Director

SCHEDULE #2

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

PROJECT NO: \_\_\_\_\_ PROJECT NAME: Water Treatment Plant No. 2

TO: Camp Dresser & McKee, 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: 06/02/06 - 06/02/09

The undersigned is prepared to perform the following described work in connection with the above project (Specify in detail, particular work items or parts thereof to be performed):

1.	Survey Services	1.00	\$ -	\$15,000.00
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -

at the following price \$ 15,000.00  
(Subcontractor's quote)

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 stated: \$ \_\_\_\_\_

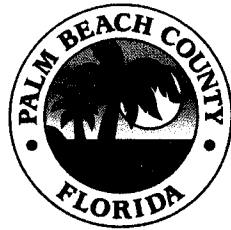
The undersigned subcontractor understands that the provision of this form to prime bidder does not prevent subcontractor from providing quotations to other bidders.

Heller-Weaver and Sheremeta, Inc.  
(Print name of SBE-M/WBE Subcontractor)

By:   
John D. Weaver, President

(Print name/title of person executing on behalf of SBE-M/WBE Subcontractor)

Date: May 3, 2007



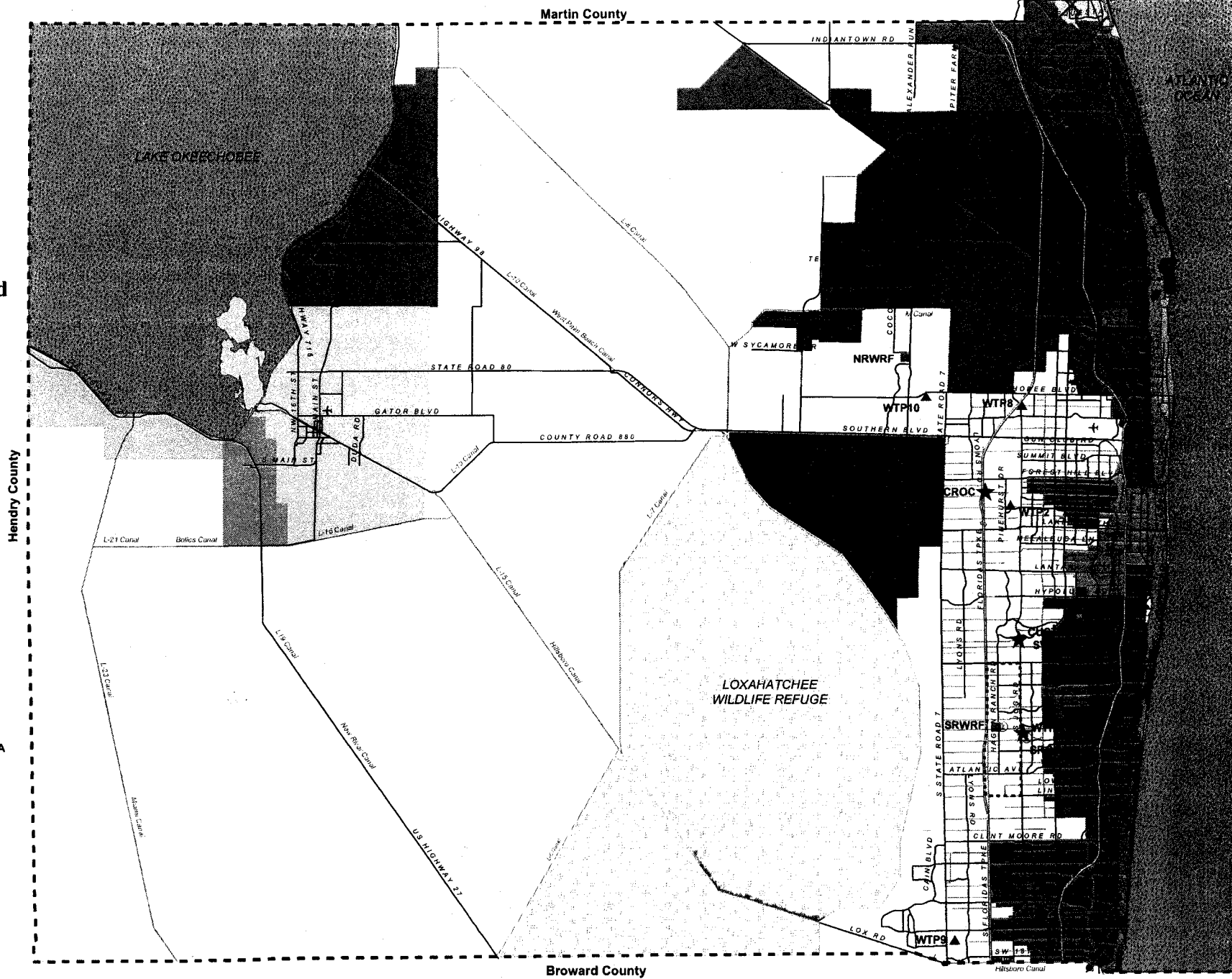
**Palm Beach County  
Water Utilities  
Department  
Service Area (SA) and  
Major Facilities**

**Legend**

- P.B.C.W.U.D. SA
- - - MANDATORY RECLAIMED SA
- - - Palm Beach County Limits
- ★ Administration
- Water Reclamation Facility
- ▲ Water Treatment Facility
- Wetlands



NOT TO SCALE



## EXHIBIT B

## AUTHORIZATION STATUS REPORT

## AUTHORIZATION NO. 20

## SUMMARY AND STATUS OF REQUESTS FOR AUTHORIZATIONS

NO.	DESCRIPTION	STATUS	PROJECT TOTAL AMOUNT	ACTUAL AMOUNT	DATE APPROVED	WUD NO. ASSIGNED
1	Water Treatment Plant No. 8 Expansion	Approved	\$ 854,184	\$ 854,184	06/21/2005	05-146
1.1	Water Treatment Plant No. 8 Expansion - Additional Services during Design	Approved	\$ 94,952	\$ 94,952	07/05/2006	05-146
1.2	Water Treatment Plant No. 8 Expansion - Additional Services during Design	Approved	\$ 9,404	\$ 9,404	02/12/2007	05-146
2	Alternative Water Supply (Senate Bill 444) Fundraising Assistance for the LRWTP and the Century Village North Reclaimed Water Facility and Pipeline Project	Approved	\$ 36,984	\$ 36,984	10/12/2005	05-220
2.1	Grant Funding Assistance for the Lake Region Water Treatment Plant	Approved	\$ 49,850	\$ 49,850	11/09/2005	05-220
3	Water Treatment Plant No. 2 Engineering Services	Approved	\$ 9,963	\$ 9,963	10/05/2005	05-219
4	Lake Region Water Treatment Plant - Services During Construction	Approved	\$ 460,900	\$ 460,900	11/01/2005	06-015
5	Technical Assistance and Grant Funding Support for Water Supply Projects	Approved	\$ 24,848	\$ 24,848	01/25/2006	06-024
6	Water Treatment Plant Nos. 2, 8 & 9 Modifications – Additional Limited Construction Services	Approved	\$ 38,642	\$ 38,642	12/14/2005	01-182B
7	Water Treatment Plant Nos. 3, 8 & Lake Region Ground Storage Tank Addition	Approved	\$ 40,018	\$ 40,018	01/25/2006	06-025
8	Technical Assistance, Coordination and Grant Funding Support for FY 2006/2007 Alternative Water Supply and Other Projects	Approved	\$ 91,972	\$ 91,972	03/29/2006	06-080
9	Response to WUP RAI #2 for the Southwest Boca Diversion Project	Approved	\$ 12,072	\$ 12,072	08/01/2006	04-218
10	Water Treatment Plant No. 8 - Limited Services during Construction	Approved	\$ 218,328	\$ 218,328	05/02/2006	05-146
11	Lake Region Water Treatment Plant - Additional Services During Design - Subsurface Utility Location	Approved	\$ 62,951	\$ 62,951	07/05/2006	03-169
11.1	Lake Region Water Treatment Plant - Surveying Service	Approved	\$ 90,407	\$ 90,407	08/09/2006	03-169
11.2	Lake Region Water Treatment Plant - Additional Services during Design	Approved	\$ 7,884	\$ 7,884	02/12/2007	03-169
11.3	Lake Region Water Treatment Plant - Additional Services during Design - Addendum Preparation and Request for Information Response	Approved	\$ 25,000	\$ 25,000	03/05/2007	03-169
12	Lake Region Water Treatment Plant - Wellfield and Master Meters - Limited Services during Construction	Approved	\$ 96,153	\$ 96,153	02/14/2007	07-067



EXHIBIT B

AUTHORIZATION STATUS REPORT

AUTHORIZATION NO. 20

SUMMARY AND STATUS OF REQUESTS FOR AUTHORIZATIONS

13	Response to Water Use Permit RAI No. 6, Evaluation of Surficial Aquifer Water Supply for 10-yr Projected Withdrawals, and Permitting of New Withdrawals for a LPRO Plant at WTP No. 10	Approved	\$ 98,952	\$ 98,952	07/05/2006	06-143
14	Water Treatment Plant Nos. 3 & 9 – Conversion to LPRO process Engineering Study	Approved	\$ 48,132	\$ 48,132	06/30/2006	06-142
15	System-wide Wellfield Improvements Project - Additional Bidding Services	Approved	\$ 23,842	\$ 23,842	08/01/2006	05-041
15.1	System-wide Wellfield Improvements Project Limited Services during Construction	Approved	\$ 95,726	\$ 95,726	03/14/2007	05-041
16	Lime Sludge Study for WTP Nos. 8 and 2 and Conceptual Site Plan for WTP No. 2 - Engineering Study	Approved	\$ 46,920	\$ 46,920	02/15/2007	07-068
17	Lake Region Water Treatment Plant - Additional Services during Construction	Approved	\$ 75,176	\$ 75,176	02/21/2007	06-015
18	Water Treatment Plant Nos. 2 and 8 Ferric Chloride Addition - Final Design and Bidding Services	Pending	\$ 68,696	Pending	Pending	07-114
19	Water Treatment Plant Nos. 2, 3, 8, 9, and Lake Region Portable Sodium Hypochlorite Onsite Generation System - Final Design	Pending	\$ 62,364	Pending	Pending	07-115
20	Water Treatment Plant No. 2 Preliminary Design, Final Design, Bidding and Permitting Services	Pending	\$ 391,198	Pending	Pending	07-134
TOTALS			\$ 3,135,518	\$ 2,613,260		

EXHIBIT C

AUTHORIZATION STATUS REPORT

AUTHORIZATION NO. 20

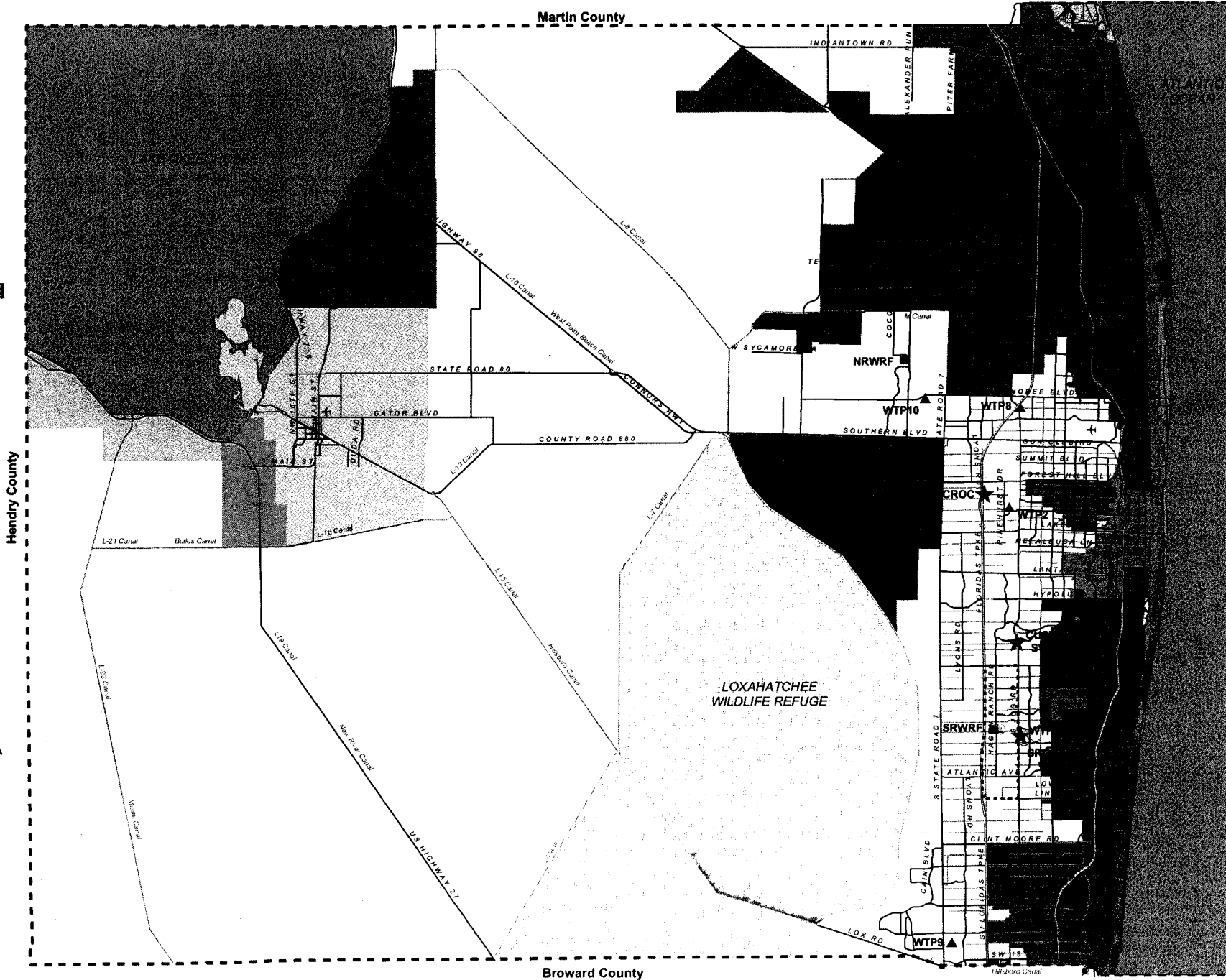
SUMMARY OF SBE TRACKING SYSTEM

	TOTAL	SBE
<u>Current Proposal</u>		
Value of Authorization No. (20 )	\$ 391,198	
Value of SBE Letters of Intent	\$ 89,000	\$ 89,000
Actual Percentage	22.75%	
<u>Signed Authorizations</u>		
Authorization No. 1	854,184	183,744
Authorization No. 1.1	94,952	5,000
Authorization No. 1.2	9,404	8,162
Authorization No. 2	36,984	6,000
Authorization No. 2.1	49,850	-
Authorization No. 3	9,963	-
Authorization No. 4	460,900	137,600
Authorization No. 5	24,848	2,500
Authorization No. 6	38,642	10,000
Authorization No. 7	40,018	5,000
Authorization No. 8	91,972	18,400
Authorization No. 9	12,072	-
Authorization No. 10	218,328	84,000
Authorization No. 11	62,951	-
Authorization No. 11.1	90,407	67,480
Authorization No. 11.2	7,884	6,780
Authorization No. 11.3	25,000	-
Authorization No. 12	96,153	42,000
Authorization No. 13	98,952	-
Authorization No. 14	48,132	-
Authorization No. 15	23,842	8,000
Authorization No. 15.1	95,726	58,000
Authorization No. 16	46,920	-
Authorization No. 17	75,176	10,000
Total Value of Signed Authorizations	2,613,260	652,666
Total Value of SBE Letters of Intent	\$ 652,666	
Actual Percentage	24.97%	
<u>Signed Authorizations Plus Current Proposal</u>	\$3,004,458.00	
Total Value of Authorizations	\$ 3,004,458	
Total Value of Subcontracts & Letters of Intent	\$ 741,666	
Actual Percentage	24.68%	
GOAL	20.00%	



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

Attachment 2



**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

Attachment D