

**PALM BEACH COUNTY
BOARD OF COUNTY COMMISSIONERS**

AGENDA ITEM SUMMARY

Meeting Date: January 24, 2012

(X) Consent
() Workshop

() Regular
() Public Hearing

Department

Submitted By: Environmental Resources Management

Submitted For: Environmental Resources Management

I. EXECUTIVE BRIEF

Motion and Title: Staff recommends motion to approve: Task Order 1296-06 to a continuing Contract (R2010-1296) with Applied Technology and Management, Inc. (ATM) in the amount of \$234,738.74 for design and permitting work needed to support construction of the 2012 South Lake Worth Inlet Sand Trap Expansion and Maintenance Dredging Project (Project).

Summary: The BCC approved the Contract with ATM, a Palm Beach County company, on August 17, 2010 (R2010-1296). Task Order 1296-06 authorizes ATM to utilize recent bathymetric, sub-bottom, and seagrass surveys to design and permit the proposed Project and to calculate seagrass impacts and mitigation requirements for submittal to the Florida Department of Environmental Protection (FDEP).

FDEP Grant Agreement 11PB1 (R2011-0930) recognizes the importance of maintaining the downdrift beaches and mitigating for inlet effects and provides for 75% cost-share of the non-Federal Project costs. Additional funding assistance may be provided through interlocal agreements with the City of Boynton Beach and the Florida Inland Navigation District (FIND).

The County's share of this Task Order is funded by tourist development taxes and FDEP funding. There is 8.9% Woman Business Enterprise (WBE) and 3.2% Small Business Enterprise (SBE) sub-consultant participation on the Task Order. ATM committed to an overall 15% SBE-M/WBE participation in the Contract. ATM has achieved 40.8% cumulative SBE-M/WBE participation on the Contract including this Task Order. District 4 (JM)

Background and Justification: The Project is recommended by the South Lake Worth Inlet Maintenance Plan, approved by the BCC on January 11, 2000 (R2000-0082). The Project area is located directly west of the South Lake Worth Inlet. In the previous 2008 dredging event, the County was awarded a grant from the Florida Inland Navigation District (FIND) Waterways Assistance Program (WAP) (R2007-0674). The County also entered into interlocal agreements to dredge the Intracoastal Waterway Cut P-50 for FIND (R2007-2193) and the Boynton Boat Club Channel for the City of Boynton Beach (R2007-0044) as part of the 2008 project. The County anticipates similar but, as of this writing does not yet have commitment for, cost sharing through interlocal agreements with the FIND and the City of Boynton Beach, a 2012 FIND WAP grant, and FDEP Grant Agreement 11PB1 (R2011-0930).

Attachments:

1. Task Order 1296-06 with Contract History
2. Contract (pages 1, 19, Exhibit B Fee Schedule)

Recommended by:

Department Director

12/21/11
Date

Approved by:

II. FISCAL IMPACT ANALYSIS

A. Five Year Summary of Fiscal Impact:

Fiscal Years	2012	2013	2014	2015	2016
Capital Expenditures	_____	_____	_____	_____	_____
Operating Costs	<u>\$234,739</u>	_____	_____	_____	_____
External Revenues	<u>(\$176,054)</u>	_____	_____	_____	_____
Program Income (County)	_____	_____	_____	_____	_____
In-Kind Match (County)	_____	_____	_____	_____	_____
NET FISCAL IMPACT	<u>\$58,685</u>	_____	_____	_____	_____
# ADDITIONAL FTE POSITIONS (Cumulative)	_____	_____	_____	_____	_____

Is Item Included in Current Budget? Yes x No _____
Budget Account No.: Fund 3653 Department 381 Unit M703 Object 3120
Fund 3652 Department 381 Unit M046 Object 3120

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

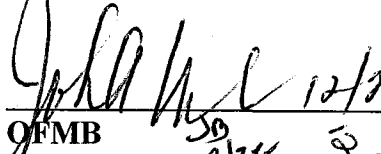
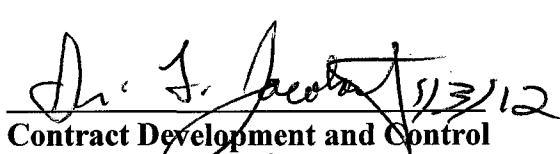
Beach Improvement Fund
FDEP Grant 11PB1 – South Lake Worth Inlet Management Plan Implementation

C. Department Fiscal Review:

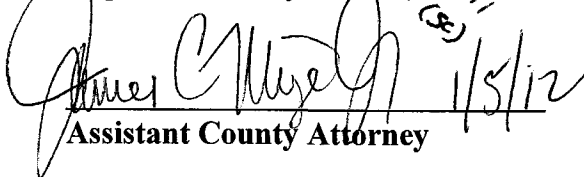


III. REVIEW COMMENTS

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

 12/21/11
OFMB 50 12/22
 1/3/12
Contract Development and Control
1-3-12 B. Wheeler

B. Legal Sufficiency:

 1/5/12
Assistant County Attorney

This item complies with current
County policies.

C. Other Department Review:

Department Director

Attachment 1

[Fiscal approval of Budget Availability: Liz Harris]

Shelley Vana, Chair



400 S. AUSTRALIAN AVE., SUITE 300

WEST PALM BEACH, FL 33401-5045

(561) 659-0041 FAX 659-3733

WWW.APPLIEDTM.COM

December 15, 2011

Leanne Welch
Palm Beach County Env. Resources Mgmt.
2300 N. Jog Rd.; 4th Floor
West Palm Beach, FL 33411-2743

RE: South Lake Worth Inlet
Sand Trap Expansion and Maintenance Dredging
Proposal for Professional Services

Dear Ms. Welch:

Please find attached our proposal for the above referenced project. This effort will be conducted consistent with the Revised Scope of Work dated 12/9/11 including all work elements, deliverables and project schedule.

This work will be supported by one County authorized Small Business Enterprise (SBE), Sea Diversified, Inc. SBE participation is 3.2% or \$7,410. Additional support will be provided by a State-registered Woman-owned Business Enterprise (WBE), Coastal Eco-Group. WBE participation is 8.9% or \$20,819.80.

This effort will be conducted for a total cost of **\$234,738.74**. A detailed cost analysis is provided. The lump sum portion is \$229,209.54. The NTE is \$5,529.20.

Should you have any questions regarding this proposal, please feel free to contact me at your convenience.

Sincerely,

Applied Technology & Management, Inc.

Michael G. Jenkins, Ph.D., P.E.
Coastal Engineering Team Leader

**South Lake Worth Inlet
Sand Trap Expansion and Maintenance Dredging
Scope of Work
12/9/11**

I. Introduction

The Management Plan for the South Lake Worth Inlet requires periodic removal of accumulated sand in the interior sand trap as part of maintaining the down drift beaches and preventing sand from entering the inlet and settling in the navigation channel of the Intracoastal Waterway (ICW) and the Boynton Boat Club Channel (BBCC). The trap, ICW, and BBCC were dredged in 2001-02 and again in 2008. The current project is scheduled for late 2012. During construction of the new sand transfer plant in 2009, the plant was shut down for six months resulting in an earlier need for the next dredging event. In addition to dredging sand in 2012, the County also plans to remove rock from the sand trap and expand the trap to its original permitted boundaries to increase its trapping capacity. Previous dredging events were constrained by the desire to avoid impacting seagrasses. This has reduced the effectiveness of sand trapping, and the increased shoaling is actually resulting in the burial of seagrasses outside of the sand trap area. By dredging the full limits of the sand trap and mitigating for the seagrasses currently growing within the limits of the trap, this project should provide for improved seagrass growth conditions outside of the sand trap. The County will coordinate with the City of Boynton Beach in considering the widening of the BBCC and dredging the flood shoal on either side of the channel and the dredging of the adjacent ICWW channel. Expansion of the channel dimensions will be considered to reduce the current rapid infilling rate. Coordination with PBC-ERM staff is assumed and included within this Scope and Fee proposal.

II. Design

ATM will use the results of the 2010 and 2011 bathymetric, sub-bottom surveys, and seagrass surveys of the interior sand trap, ICW cut P-50, BBCC, and nearby artificial reef site (known locally as Hydroid Reef) to design the 2012 sand trap maintenance dredging project. The Hydroid Reef area will be used as a disposal site for appropriate dredged rock substrate removed from the sand trap. Removed concrete markers will be disposed separately. Beach compatible sand will be deposited below mean high water at Ocean Hammock Park. Incompatible material will be disposed of in Half Moon Bay Hole. The County will provide ATM with the construction plans from the 2008 project. This effort will include the development of a segregation plan for dredged material.

The project will include expansion of the sand trap dredge limits to the permitted boundaries. The original boundaries of the trap were determined by property boundaries and the location of thickest sands. ATM will design a sand trap to facilitate maximum dredging of available sand. This may include modifying the boundaries to eliminate sharp corners. An estimate from the 2011 survey showed 48,000 cy of sand in the trap. As part of the design, ATM will quantify the

probable infilling rate based on historic rates and the expanded sand trap dimensions (capacity).

The BBCC is cut through a flood tidal shoal and fills in quickly after dredging events. The ATM design will ensure that the east end of the BBCC will be dredged through to the ICW navigation channel. ATM will explore the possibility of widening the BBCC channel and dredging the flood shoal and disposing of the shoal material in Half Moon Hole, including the State requirements for depositing beach compatible sand on the beach and core sampling requirements.

The baseline seagrass survey conducted in the fall of 2011 will serve as the basis for seagrass assessment within the initial design.

A preliminary design will be developed based on existing information. This design will be used to determine project dimensions and volume and serve as a basis for field geotechnical investigations and preliminary project analysis. Geotechnical investigations conducted under this task will include the collection and analysis of 20 surface samples from within the proposed dredge areas. These will be mechanically sieved for compatibility using ASTM standard D-422 consistent with FDEP-BBCS guidelines. Carbonate content will be determined utilizing a high temperature (burn) methodology. In addition an assessment of carbonate content will be conducted for each sample. It is assumed that the field investigations will require two field days to complete utilizing ATM's survey vessel and equipment. It is also assumed that additional vibracore or core boring data will not be required.

Deliverables: Draft (60%) construction plans – one 11"x17" hard copy and electronic files in pdf ArcInfo layers and Autocad of construction plans including site plan, seagrass survey, location of all cores, bathymetric survey of the three dredge sites in plan view and cross section drawings, fill area and construction access, staging area(s) and beach access. Results of sediment and rock core analyses. Final construction plans containing all of the above – one signed and sealed hard copy each size: 8.5"x11", 11"x17", and 24"x36". Electronic files in pdf Arc Info, and Autocad on CD.

III. Permitting

A major modification of the 25-year joint coastal permit (2001) is anticipated. ATM will submit the application for that modification. The application will include:

- Dredging plans for the 3 sites
- Disposal of beach compatible sand below MHW at Ocean Hammock Park
- Rock dredging from the sand trap and disposal at Hydroid Reef site
- Material segregation plan
- QA/QC plan
- Turbidity monitoring plan
- Quantification of expected seagrass impacts
- Seagrass mitigation plan
- Coordination with Regulatory agencies regarding project impacts and mitigation
- Marine Mammal Authorization (MMA)

- Discussion regarding the existing Biological Opinion and potential need for modification

Cost and effort for this task are based on the assumption of a Major Modification of the existing State and Federal permits. This proposal does not include permit fees which have yet to be determined. This proposal assumes that a Cultural Resources investigation will not be required. This proposal assumes parallel consultation with State and Federal interests for up to two Requests for Additional Information (RAI's) for both processes (4 total).

A pre-submittal conference with both State and Federal interests is assumed within this proposal. These will either be conducted locally or through teleconference (no travel costs are included within this proposal).

Deliverables: Word file and drawing files of application to DEP for major modification to existing permit. Word file and drawing files of responses to up to 4RAI's (two for the State process and two for the Federal process).

IV. Bidding Process

ATM will provide support to PBC-ERM staff as requested. All bidding efforts will be conducted and directed by PBC-ERM staff.

V. Monitoring

A. Physical monitoring. ATM will conduct design bathymetric survey in Summer 2012 similar to the 2011 baseline survey. (Immediate pre- and post-construction pay surveys will be conducted by the dredge contractor.)

Deliverables: one CD containing Autocad and pdf files of bathymetric contour plots and cross-sections with dredge quantity calculations. Two sets of 11"x17" signed and sealed drawings.

B. Environmental monitoring. ATM will conduct pre- and post-construction seagrass surveys in the vicinity of the dredge sites. In addition, ATM will conduct a 2012 baseline survey of seagrass resources in Half Moon Bay.

Turbidity monitoring is not included within this proposal but will be conducted by a third-party. A proposal for this effort will be prepared upon completion of the State regulatory process and the determination of the final permit conditions.

Deliverables: Draft - one CD containing a Word file of the seagrass survey report and Arc Info, Autocad and pdf files of survey drawings. Final – two hard copies of the final report and 2 CD's containing pdf, Autocad, Arc Info, Word, and Excel files of the report.

The summer 2012 Bathymetric survey will be conducted by SDI (an SBE firm). Pre- and Post project seagrass surveys will be conducted in the vicinity of the dredge areas consistent with current seagrass monitoring protocol as delineated within the 8/11/11 proposal/SOW. This proposal does not include seagrass surveys of the Bryant Park (mitigation) site which will be surveyed by PBC-ERM. ATM will conduct a 2012 seagrass survey of Half Moon Bay. This survey

will delineate the boundaries of observed SAV within 100 feet of the proposed material placement areas and conduct random (quadrat) analysis of seagrass species and density. This proposal does not include biological (hardbottom) monitoring in the vicinity of the beach disposal site.

VI. Mitigation

ATM, through its subcontractor, will use the results of the 2011 seagrass monitoring surveys to calculate coverage and density of SAV in the sand trap boundary and will use these data to conduct a UMAM assessment. Results of this assessment will be utilized to calculate SAV impacts and mitigation requirements. It is expected that the required mitigation will be met through newly created habitat off of Bryant Park. A UMAM assessment of this newly created habitat will be necessary to adequately credit mitigation. PBC-ERM will monitor the mitigation resource to a level sufficient for utilization within the UMAM assessment. The UMAM assessments will be primarily directed by CEG (a State WBE firm) with input, analysis and consultation provided by ATM. This proposal includes consultation with both State and Federal interests regarding UMAM analysis.

Deliverables: UMAM assessment worksheets of the impact and mitigation sites suitable for submission to DEP.

VII. Project Schedule

Permit mod application submittal within 90 days of NTP receipt.

Permit mod issued within 240 days of NTP receipt

Bid advertisement within 300 days of NTP receipt

Bid award within 330 days of NTP receipt

Construction mobilization within 360 days of NTP receipt

Beach phase of construction complete within 420 days of NTP receipt

Construction complete within 540 days of NTP receipt

South Lake Worth Inlet
Sand Trap Expansion and Maintenance Dredging
Detailed Costs
12/9/2011

	TASK DESCRIPTION	Coastal Team Leader	Coastal Engineer	Senior Scientist	Senior Scientist (SCUBA Rate)	Jr. Engineer / Engineer Technician	Professional Surveyor & Mapper	Sr. CAD/GIS	Sr.Admin/Tech. Editor	Sub consultant	ATM Total Labor	ATM Other Direct Costs (ODC's) (2) - see detail breakdown below	Total Task Budget
	Contract Labor Rates - 2011	\$155.58	\$123.23	\$133.00	\$160.50	\$76.44	\$105.30	\$71.71	\$73.16				
1	Design												
1.1	Preliminary Design	20	30	4		60	2	40	8		\$15,591.18		\$15,591.18
1.2	Geotechnical Investigations	4	28			40	40	20	2		\$12,922.88	\$3,400	\$16,322.88
1.3	Compatibility, Volume and Placement Analysis	20	28	2		40	20	20	2		\$13,572.16		\$13,572.16
1.4	60% Design Set	20	12	2		20	20	20	2		\$10,071.68	\$38	\$10,109.18
1.5	Final Design Set	20	12	1		10	2	20	2		\$7,276.88	\$38	\$7,316.38
	TOTAL TASK 1 COST -	84	110	9	0	170	84	120	16	\$0	\$59,436.78	\$3,475.00	\$62,911.78
2	Permitting												
2.1	Pre Application Meeting (Conf Call)	12	6			8		4	4		\$4,043.80		\$4,043.80
2.1	JCP Permit Modification	30	40	24		60	8	40	40		\$25,541.00	\$62	\$25,602.50
2.2	FDEP Permit Support	20	32	12		60	4	20	20		\$16,555.96		\$16,555.96
2.3	USACE Permit Support	20	32	12		60	4	20	20		\$16,555.96		\$16,555.96
	TOTAL TASK 2 COST -	82	112	48	0	208	16	84	84	\$0	\$62,696.72	\$61.60	\$62,758.22
3	Bid Support												
3.1	Bid Construction Support	8	4						2		\$1,883.88		\$1,883.88
	TOTAL TASK 3 COST -	8	4	0	0	0	0	0	2	\$0	\$1,883.88	\$0.00	\$1,883.88
4	Monitoring												
4.1	2012 Bathymetric Survey	1						2	2	\$7,410.00 ✓	\$445.32		\$7,855.32
4.2	Pre-Construction Seagrass Survey	4		62	30	40	36	16	6		\$22,118.04	\$2,949	\$25,067.04
4.3	Post-Construction Seagrass Survey	4		62	30	40	36	16	6		\$22,118.04	\$2,949	\$25,067.04
4.4	2011/2 Half Moon Seagrass Survey	4		42	20	20	24	10	4		\$14,484.06	\$1,900	\$16,384.06
	TOTAL TASK 4 COST -	13	0	166	80	100	96	44	18	\$7,410.00	\$59,165.46	\$7,798.00	\$74,373.46
5	Mitigation												
5.1	UMAM Assessment of Impact Areas	10	4	4		24		20	2	\$20,819.80 ✓	\$5,995.80		\$26,815.60
5.2	UMAM Assessment of Mitigation Area	10	4	4		24		20	2		\$5,995.80		\$5,995.80
	TOTAL TASK 5 COST -	20	8	8	0	48	0	40	4	\$20,819.80	\$11,991.60	\$0.00	\$32,811.40
		207	234	231	80	526	196	288	124	\$28,229.80 ✓	\$195,174.44	\$11,334.50 ✓	\$234,738.74 ✓

TOTAL	\$234,739	TOTAL	\$234,739
TOTAL WBE	\$20,820	TOTAL SBE	\$7,410
WBE Participation	8.9%	SBE Participation	3.2%

Rental Rates

Survey Vessel	\$850.00	Day	10	\$8,500.00
Underwater Still Camera	\$75.00	Day	10	\$750.00
SCUBA Equipment	\$25.00	Day	10	\$250.00
			subtotal	\$9,500.00
Direct Costs				
Mechanical Sieve Analysis	\$75.00	Sample	20	\$1,500.00
Photocopies	\$0.12	Copy	600	\$72.00
Color Copies	\$0.75	Copy	350	\$262.50
			subtotal	\$1,834.50



SEA Diversified, Inc.
310 North Swinton Avenue
Delray Beach, Florida 33444
Phone: 561-243-4920
Facsimile: 561-243-4957

4640 Lipscomb Street, Suite 10
Palm City, Florida 32905
Phone: 321-984-7268
Facsimile: 321-984-7270

December 5, 2011
(Original November 11, 2011)

Forwarded via Electronic Mail December 5, 2011

Michael G. Jenkins, Ph.D., P.E.
Coastal Engineering Team Leader
Applied Technology & Management, Inc.
400 S. Australian Avenue, Suite 300
West Palm Beach, Florida 33401-5045

**Re: Proposal / Agreement for Professional Services - Revised
Bathymetric Surveys**

- **ICWW Cut P-50**
- **Boynton Boat Club Park Channel**
- **SLWI Sand Trap**

**Palm Beach County, Florida
Sea Diversified P.N. 11-1875**

Dear Dr. Jenkins:

In accordance with your request, Sea Diversified, Inc. (SDI) is pleased to submit the following proposal for professional services. The scope of work shall include a hydrographic Survey of Cut P-50, station 12+00 to 31+00, in Palm Beach County. Additionally, SDI shall conduct a hydrographic survey of the Boynton Boat Club Park channel and the SLWI sand trap. A detailed description of the scope of work is as follows:

General:

Sea Diversified, Inc. shall provide supervision, field / office support staff and equipment to perform the scope of work described, herewith. All work shall be conducted to the highest level of industry standards and under the responsible charge of a Professional Surveyor and Mapper registered in the State of Florida. All work shall meet or exceed the Minimal Technical Standards set forth by the Florida Board of Professional Surveyors and Mappers.

Horizontal and Vertical Data:

Vertical and horizontal data shall be collected and presented relative to the North American Vertical Datum of 1988 (NAVD 88) and the Florida State Plane Coordinate System, East Zone, North American Datum (NAD), 83/90, respectively.

Bathymetric Data Acquisition - Scope:

ICWW Cut P-50:

Bathymetric data shall be collected along transects spaced at intervals of fifty (50) foot oriented perpendicular to the centerline of the Cut.

Boynton Boat Club Park Channel:

Bathymetric data shall be collected along transects spaced at intervals of twenty-five (25) feet oriented perpendicular to the centerline of the Channel. Data collection shall extend a minimum of fifty (50) feet either side of the channel limits or to the limits of navigation. Additional data shall be collected along three



Proposal / Agreement for Professional Services - Revised
Hydrographic Survey
ICWW Cut P-50, Boynton Boat Club Park Channel, SLWI Sand Trap
Palm Beach County, Florida
Sea Diversified P.N. 11-1839
December 5, 2011 (orig. November 11, 2011)

Page 2 of 2

(3) evenly spaced longitudinal transects oriented parallel to the centerline of the channel to define limits of shoaling.

SLWI Sand Trap:

Bathymetric data shall be collected along transects spaced at intervals of fifty (50) feet to match the previous survey conducted by SDI in year 2010.

Bathymetric Data Acquisition - Methodologies:

The survey shall be conducted using an automated hydrographic system comprised of a survey launch equipped with a marine grade sounder, differential global positioning system and computer-based navigation / data collection system. Prior to the start of the survey a tide staff will be established in the vicinity of the project for monitoring water levels during the course of data collection. The tide staff will be established relative to published control in proximity to the project.

Data Processing and Final Deliverables:

Upon completion of field survey activities, data will be edited and reduced to the project datum and formatted as required for bathymetric modeling and chart preparation. Final data, reduced to an x,y,z ASCII format will be imported to a CADD environment and subsequently translated to Digital Terrain Model (DTM) for preparing contour charts, cross section plots, volume reports or other deliverables associated with the project.

Final deliverables shall include the following:

- Certified contour and cross section charts (minimum three copies, 24"x36" paper media)
- Electronic CADD files – AutoCAD (.dwg)
- Electronic data files – ASCII, (.xyz)
- Report of Volumes

Cost:

Total lump sum fee for the described scope of work including field data collection, data processing and preparation of final deliverables shall be \$ 7,410.00.

Should you have questions or require additional information please do not hesitate to contact us at your convenience. We appreciate this opportunity to assist you with this project and look forward to hearing from you soon.

Sincerely,

William T. Sadler, Jr., P.E., P.S.M.
President

WTS/dq

Staff Hour Estimate and Cost Breakdown
Prepared by: Sea Diversified, Inc
11/11/2011 (Revised 12/5/11)

SDI Project Number 11-1875
Bathymetric Surveys - ICWW Cut P-50, Boynton Boat Club Park Channel, SLWI Sand Trap

Description	Reg Hours	Reg Rate	OT Hours	OT Rate	Unit	Total
2-Person GPS Survey Crew		\$160.00		\$240.00	CH	\$0.00
3-Person Hydrographic Survey Crew	12	\$250.00		\$375.00	CH	\$3,000.00 ✓
Computer / CADD Operator	32	\$90.00		\$135.00	PH	\$2,880.00 ✓
Survey Manager	12	\$95.00		\$142.50	PH	\$1,140.00 ✓
Professional Surveyor and Mapper	2	\$120.00		\$180.00	PH	\$240.00 ✓
Project Manager	1	\$150.00		\$225.00	PH	\$150.00 ✓
Total Cost:						\$7,410.00 ✓

Notes:

1. Hydrographic crew rates include (1) party chief, (1) instrument person / vessel operator, survey helper(s), 23' survey launch w/ fuel, automated hydrographic data acquisition system and vehicle.
2. GPS crew rates include (1) party chief, (1) instrument person, survey helper(s), High Order GPS equipment (Trimble or equivalent) and vehicle.
3. All labor rates include labor multiplier (overhead and fringe) and operating margin.
4. Overtime (over 40 hours per week) shall be 1.5 times regular hourly rate.



Coastal Eco-Group Inc.

810 SE 8th Avenue, Suite C
Deerfield Beach, FL 33441
954.591.1219 Phone 954-653-2981 Fax

December 9, 2011

Michael Jenkins, P.E., Ph.D
Applied Technology & Management, Inc.
400 South Australian Ave. Suite 300
West Palm Beach, FL 33401

**RE: Proposal for Professional Services for the South Lake Worth Inlet Sand Trap
Expansion and Maintenance Dredging Project- Submerged Aquatic Vegetation
UMAM Assessments and Regulatory Agency Coordination/Meetings**

Dear Mike:

Pursuant to your request, Coastal Eco-Group, Inc. (CEG) is pleased to provide the following scope of services and associated costs in support of the proposed South Lake Worth Inlet Sand Trap Expansion and Maintenance Dredging Project. All work will be performed at an hourly, not to exceed basis, at the request of Palm Beach County ERM staff. The proposed work is to perform the submerged aquatic vegetation impact and mitigation assessments (Uniform Mitigation Assessment Method- UMAM) pursuant to Rule 62-343, F.A.C. The total cost of these services, based on an hourly, not-to-exceed fee basis, is \$20,819.80.

CEG will use the results of the 2011 seagrass monitoring surveys to calculate areal extent and density of submerged aquatic vegetation (SAV) within the sand trap dredging boundary and adjacent side slope areas for application in the impact assessment and Uniform Mitigation Assessment Method (UMAM) evaluation. Quantitative data from the proposed mitigation site at Bryant Park will be provided by PBC-ERM. CEG scientists will perform site inspections of the sand trap impact site and mitigation site in the spring of 2012 in support of the UMAM assessments. Using our site observations and the quantitative survey data, CEG scientists will develop the UMAM evaluations (Parts I and II) for the impact and mitigation sites. The total cost for these services is \$8,906.60.

A total of 60 hours is proposed for regulatory agency coordination and environmental permitting support concerning SAV impacts and the UMAM assessments during the state and Federal regulatory and resource protection agency review of the permit application and requests for additional information. During this coordination process, CEG will ensure that the UMAM mitigation evaluation is consistent with federal guidelines for time-lag adjustments. CEG will also prepare the Endangered Species Act Section 7 consultation checklist required by the Corps

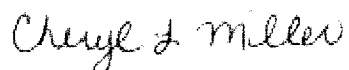
for impacts to federally-listed species *Halophila johnsonii*. The total cost for these services is \$6,384.00

At the request of the Applied Technology and Management Inc., Ms. Miller will attend meetings with state and Federal regulatory and resource protection agencies during review of the permit application and UMAM evaluations. Meeting attendance will include preparation of visual aids (e.g. PowerPoint presentation) and any hand-outs required for the presentation of findings. A total of 48 hours is proposed for meeting preparation, attendance, and travel for a labor cost of \$5,107.20, plus an additional travel cost of \$422 for up to two trips between West Palm Beach and Tallahassee. The total cost for these services is \$5,529.20.

Thank you for the opportunity to provide this scope of services and cost estimate. Please let me know if you have any questions. We look forward to working with you on this project.

Sincerely,

Cheryl L. Miller

A handwritten signature in cursive script that reads "Cheryl L. Miller".

President, Coastal Eco-Group Inc.



Coastal Eco-Group Inc.

**SOUTH LAKE WORTH INLET SAND TRAP EXPANSION AND MAINTENANCE DREDGING PROJECT
SEAGRASS IMPACT AND MITIGATION ASSESSMENT AND AGENCY COORDINATION**

12/12/2011

		<u>LABOR COST</u>		<u>DIRECT COSTS</u>					
		Principal Scientist (Hours)	Senior Scientist (Hours)	Underwater Still Camera (Day)	Diver Supplies (Days)	Dive Equipment (Days)	Scuba Tank Fills (Air)	Fuel & Tolls (Trips)	Rental Car (Days)
Seagrass UMAM Evaluation and Agency Coordination									
A. Site visit		12	12	1	1	2	4		
B. Prepare UMAM mitigation evaluation- impact and mitigation sites		60							
C. Agency Coordination- respond to agency questions regarding mitigation/impact assessments		60							
D. Meetings- attend up to 3 meetings in either Tallahassee and/or West Palm Beach		48						2	4
Total =		180	12	1	1	2	4	2	4
Rate =		\$106.40	\$92.40	\$30.00	\$25.00	\$25.00	\$8.00	\$111.00	\$50.000
Cost =		\$19,152.00	\$1,108.80	\$30.00	\$25.00	\$50.00	\$32.00	\$222.00	\$200.00
TOTAL LABOR COST =		\$20,260.80							
TOTAL DIRECT COST =		<u>\$559.00</u>							
TOTAL COST =		\$20,819.80							

Applied Technology & Management
Continuing Contract for Coastal and Marine Engineering

Contract R2010-1296 dated August 17, 2010 for period of two years expires on August 16, 2012.
Contract Amendment No. 1 (R2011-0059) dated 1-11-11 changes IG Lanuage and Period of Service clause.
SBE-M/WBE Goal 15.0% (10% SBE/White; 5% MBE/Woman)

Task order summary:

TASK NUMBER	TOTAL/ SBE and/or MWBE AMOUNT	TASK DUE DATE	TASK DESCRIPTION	APPROVED BY/DATE
ATM-01	76,661.81 73,660.00	11/1/2010	2010 Regional Monitoring Beach Profiles, Ebb Shoal Surveys and SLWI Sand Trap Survey	CRC 8/18/2010
AMENDMENT NUMBER 1			Inspector General language and Period of Service clause changes	BCC 1/11/2011
1296-02	19,690.62 0.00	5/15/2011	Juno Beach - 12 Month Post-Construction Physical Monitoring Report	ERM 2/16/2011
ATM-01A	2,696.32 2,550.00	5/10/2011	2010 Regional Monitoring - SLWI Sand Trap Survey 2	ERM 5/5/2011
1296-03	60,112.59 58,640.00	10/1/2011	2011 Regional Monitoring - Beach Profiles and Ebb Shoal Surveys	CRC 6/29/2011
1296-04	5,863.61 5,490.00	9/19/2011	SLWI Sand Trap Expansion & Maintenance Dredging - Bathymetric Surveys	ERM 8/23/2011
1296-05	25,067.04 0.00	11/20/2011	SLWI Sand Trap Expansion & Maintenance Dredging - Seagrass Survey	ERM 9/6/2011
1296-03A	9,662.49 8,600.00	12/31/2011	2011 Regional Monitoring - Beach Profiles and Ebb Shoal Surveys	ERM 10/30/2011
1296-06	234,738.74 28,229.80	7/16/2013	SLWI Sand Trap Expansion & Maintenance Dredging - Design & Permitting	BCC

Total: 434,493.22
SBE-MBE: 177,169.80
SBE-MBE Participation: 40.8%
Report Date & Filename: 12/15/11 T:\eerlengser\Consultants\ATM_2010-2012\[history_1296.xls]Sheet1

Attachment 2

JC

R2010 12 96

**CONTRACT FOR PROFESSIONAL CONSULTANT SERVICES
BETWEEN PALM BEACH COUNTY AND
APPLIED TECHNOLOGY & MANAGEMENT, INC.**

This Contract is made as of AUG 17 2010, by and between Palm Beach County, a Political Subdivision of the State of Florida, by and through its Board of County Commissioners, hereinafter referred to as the COUNTY, and Applied Technology & Management, Inc., 400 S. Australian Avenue, Suite 300, West Palm Beach, FL 33401, an engineering firm, a corporation, authorized to do business in the State of Florida, hereinafter referred to as the CONSULTANT, whose Federal I.D. Number is 59-2413268

In consideration of the mutual promises contained herein, the COUNTY and the CONSULTANT agree as follows:

ARTICLE 1 - SERVICES

The CONSULTANT's responsibility under this Contract is to provide professional coastal and marine engineering services and incidental services as more specifically set forth in the Scope of Work attached hereto as Exhibit "A". In the event services are required to be performed that are not described in Exhibit "A", but are within the general scope of services, the COUNTY and the CONSULTANT hereby reserve the right to negotiate task orders covering the desired services.

The CONSULTANT shall conduct professional services in accordance with Chapters 471 and 472, Florida Statutes and other applicable local, state and federal standards. The CONSULTANT shall conduct topographic and hydrographic survey work in compliance with the most current U.S. Army Corps of Engineers "Technical Requirements for Surveying, Mapping and Photogrammetric Services", the most current U.S. Army Corps of Engineers "Engineering Design: Hydrographic Surveying," EM 1110-2-1003, and the most current Florida Department of Environmental Protection specifications for topographic (section 02000) and bathymetric (section 02100) surveying.

ARTICLE 2 - PERIODS OF SERVICE AND SCHEDULES

This Contract commences on the day and year first written above and ends two years later. At the option of the COUNTY, the Contract can be renewed for an additional one-year period.

Reports and other work items shall be delivered or completed according to schedules established in each task order.

ARTICLE 3 - ASSIGNMENT OF WORK

The CONSULTANT shall provide professional services on a task order basis. A copy of the Task Order form and Task Change Order form are attached hereto as Exhibit "C" and Exhibit "D". The COUNTY reserves the right to modify these forms during the term of the Contract. The

IN WITNESS WHEREOF, the Board of County Commissioners of Palm Beach County, Florida has made and executed this Contract on behalf of the COUNTY and CONSULTANT has hereunto set its hand the day and year above written

R 2010 12 96 AUG 17 2010

ATTEST:

Sharon R. Bock, Clerk & Comptroller

By:

Deputy Clerk

PALM BEACH COUNTY

BOARD OF COUNTY COMMISSIONERS:

By:

Burt Aaronson, Chair

Steven L. Abrams

CONSULTANT:

WITNESS:

Signature

Judy Oyler

Name (type or print)

Applied Technology & Management, Inc.

Company Name

Signature

Michael Jenkins, Ph.D, P.E.

Typed Name

Coastal Engineering Team Leader

Title

APPROVED AS TO FORM
AND LEGAL SUFFICIENCY

By:

Assistant County Attorney

APPROVED AS TO TERMS
AND CONDITIONS

By:

Richard E. Walesky, Director

Dept. of Environmental Resources Mgmt.

(corporate seal)

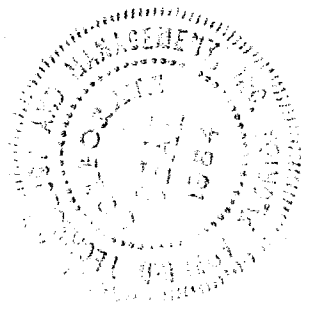


EXHIBIT B
APPLIED TECHNOLOGY AND MANAGEMENT, INC.
2010 WAGE AND EQUIPMENT RATES
rev. 7/26/10

WAGE RATES

EMPLOYEE CLASS	HOURLY WAGE RATE (AVG)	BILLABLE RATES
Coastal Team Leader	\$54.59	\$155.58
Coastal Engineer	\$43.24	\$123.23
Senior Scientist	\$70.00	\$133.00
Senior Scientist (SCUBA rate)	\$120.00	\$160.50
Junior Engineer / Engineering Tech.	\$26.82	\$76.44
Professional Surveyor & Mapper	\$65.00	\$105.30
Construction Manager	\$45.00	\$85.50
Sr. CAD/GIS	\$25.16	\$71.71
Jr. CAD	\$16.15	\$46.02
Sr. Admin./Tech. Editor	\$25.67	\$73.16
Administrative/Clerical	\$15.38	\$43.84

EQUIPMENT RATES

EQUIPMENT TYPE	RATE	RATE UNIT
ATM Survey Vessel w/DGPS ¹	\$850	DAY
RTK GPS	\$450	DAY
Trimble Pro-XR	\$125	DAY
Survey Vehicle	\$100	DAY
Tide Gauge	\$75	DAY
Turbidity Meter	\$50	DAY
Underwater Still Camera w/Strobe	\$75	DAY
SCUBA Gear	\$25	DAY
Photocopies (8.5 x 11)	\$0.12	COPY
Color Copies	\$0.75	COPY
Standard Paper Plots (24 x 36)	\$1.00	COPY
Heavy Duty Plots	\$7.50	COPY

1. Survey Vessel Rate includes Hypack and Fathometer Systems
2. Billable Rate based on a 2.85 Multiplier applied to the Hourly Wage Rate for non-hourly staff.