

II. FISCAL IMPACT ANALYSIS

A. Five Year Summary of Fiscal Impact:

Fiscal Years	2013	2014	2015	2016	2017
Capital Expenditures	_____	_____	_____	_____	_____
Operating Costs	<u>\$58,200</u>	_____	_____	_____	_____
External Revenues	_____	_____	_____	_____	_____
Program Income (County)	_____	_____	_____	_____	_____
In-Kind Match (County)	_____	_____	_____	_____	_____
NET FISCAL IMPACT	<u>\$58,200</u>	_____	_____	_____	_____
# ADDITIONAL FTE POSITIONS (Cumulative)	_____	_____	_____	_____	_____

Is Item Included in Current Budget? Yes X No _____

Budget Account No.: Fund _____ Department _____ Unit _____ Object _____

Program _____

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

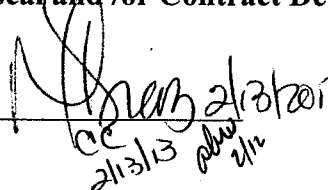
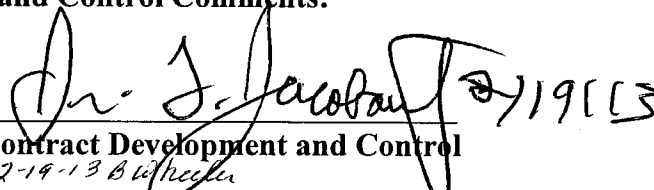
3652-381-M045-3120	Jupiter Carlin Shoreline Protection	\$1,786.84
3652-381-M028-3120	Juno Beach Shoreline Protection	\$3,318.42
3652-381-M037-3120	Singer Island Shoreline Protection	\$2,425.00
3652-381-M044-3120	S Palm Beach Shoreline Protection	\$2,042.11
3652-381-M015-3120	Ocean Ridge Shoreline Protection	\$3,318.42
3653-381-M703-3120	SLWI Sand Trans Plant	\$3,446.05
3652-381-M041-3120	Delray Beach	\$3,956.59
3652-381-M039-3120	N Boca Raton	\$2,042.11
3652-381-M051-3120	C Boca Raton	\$1,786.84
3652-381-M016-3120	S Boca Raton	\$1,531.59
3652-381-M100-3120	All other incidental	\$32,546.03
	County-wide coastal aerals	

C. Department Fiscal Review:

JP

III. REVIEW COMMENTS

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

OFMB *cc 2/13/13* *2/13/13* *2/13/13*
 Contract Development and Control *2-19-13 B. Wheeler*

B. Legal Sufficiency:



 Assistant County Attorney

C. Other Department Review:

_____ Department Director

RENEWAL TO THE CONTRACT FOR CONSULTING/PROFESSIONAL SERVICES

THIS RENEWAL TO THE CONTRACT is made as of this _____ day of _____, 2013, between Palm Beach County, a Political Subdivision of the State of Florida, by and through its Board of Commissioners, hereinafter referred to as the COUNTY, and Florida Atlantic University Board of Trustees, a state university authorized to do business in the State of Florida, hereinafter referred to as the CONSULTANT, whose Federal Employer Identification Number is 65-0385507.

WITNESSETH:

WHEREAS, the parties desire to retroactively renew the Contract for Consulting/Professional Services originally dated May 19, 2009 (R2009-0860) (Exhibit "A") and amended on February 1, 2010 (Exhibit "B"), September 21, 2010 (Exhibit "C"), and June 28, 2011 (Exhibit "D"), to extend the completion date of the Contract from November 30, 2011 to August 31, 2013; and

WHEREAS, the Contract has expired and the COUNTY and CONSULTANT wish to renew the Contract retroactive to November 30, 2011 to allow CONSULTANT to complete the services originally agreed upon under the terms and conditions originally agreed upon.

NOW, THEREFORE, in consideration of the mutual promises contained herein, the parties agree as follows:

1. The Contract, as amended, is hereby renewed retroactive to November 30, 2011.
2. Article 2 of the Contract is hereby amended by replacing the Contract completion date of November 30, 2011 with August 31, 2013.
3. Article 12 is hereby amended by adding the following language:

No provision of this Contract is intended to, or shall be construed to, create any third party beneficiary or to provide any rights to any person or entity not a party to this Contract, including but not limited to any citizen or employees of the COUNTY and/or CONSULTANT.
4. Article 20 is hereby deleted in its entirety and replaced with the following:

The CONSULTANT warrants and represents that all of its employees are treated equally during employment without regard to race, color, religion, disability, sex, age, national origin, ancestry, marital status, familial status, sexual orientation, gender identity or gender expression.
5. The Scope of Work attached to the Contract as Exhibit "A-3" is replaced with the Scope of Work attached hereto as Exhibit "A-4".
6. Except as expressly provided herein, all terms and conditions of the Contract, as amended, remain in full force and effect.

The remainder of this page is intentionally left blank.

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.

ATTEST:
Sharon R. Bock, Clerk & Comptroller

PALM BEACH COUNTY
BOARD OF COUNTY COMMISSIONERS:

By: _____
Deputy Clerk

By: _____
Steven L. Abrams, Mayor

PALM BEACH COUNTY, FLORIDA:

APPROVED AS TO FORM
AND LEGAL SUFFICIENCY

By: *Robert Robbins*
Robert Robbins, Director
Department of Environmental
Resources Management

By: *JoAnn Moretti*
Assistant County Attorney

WITNESS:

CONSULTANT:
FLORIDA ATLANTIC UNIVERSITY

Tracy Vuong
Signature

JoAnn Moretti
Signature

Tracy Vuong 2/8/13
Name (Type or Print)

JoAnn Moretti
Name (Type or Print) Director
Sponsored Programs
Florida Atlantic University

Kristi Courtney
Signature

Title 2.8.13

Kristi Courtney
Name (Type or Print)

APPROVED AS TO FORM
BY
General Counsel
Florida Atlantic University
2/7/13

Agenda Item #: 326
M/BA 5-0
Sabs

PALM BEACH COUNTY
BOARD OF COUNTY COMMISSIONERS

AGENDA ITEM SUMMARY

R-2009-0860

Meeting Date: May 19, 2009 (X) Consent () Regular
() Workshop () Public Hearing

Department

Submitted By: Environmental Resources Management
Submitted For: Environmental Resources Management

5/28/09 - orig to Janet

I. EXECUTIVE BRIEF

Motion and Title: Staff recommends motion to:

6/4/09 - copied
EEN/Physics - AIS, cert. # 1, copy
designee etc.
FSS - AIS, ring #1, cert #1, ring designee etc.
AC - AIS, cert #1, copy designee etc.

A) approve Contract with Florida Atlantic University (FAU) in the not-to-exceed amount of \$58,200 for digitizing and analyzing nearshore coastal aerials county-wide in association with shoreline protection projects; and

B) authorize the County Administrator or his designee to sign all future time extensions, task assignments, certifications, and other forms associated with the Contract, and necessary minor amendments that do not change the scope of work or terms and conditions of the Contract.

Summary: This Contract will provide an automated means of digitizing aerial photographs for managing nearshore reef resources meeting permit and project design requirements. Staff and students from FAU will perform this effort. The Contract is funded from a combination of Tourist Development taxes, interest, and ad valorem funds. The Contract is effective upon execution by both parties and expires January 31, 2010. Countywide (SF)

Background and Justification: Environmental permits issued by the state and federal agencies for shoreline protection projects require mitigation for and monitoring of the nearshore reef resources, and this information is essential for project planning and design. Tracking nearshore resources has been done by completing aerial photographs with subsequent manual digitization of the resources. Florida Atlantic University (FAU), with their extensive Geographic Information System (GIS) expertise has developed an automated methodology that will significantly shorten the time to complete the digitization work and reduce the overall costs. Additionally, comparisons and trend analyses have not been performed due to the backlog of undigitized aerials. This contract will complete the backlog, and with future aerials and contracts, provide a significant savings over consultants. As permit-required monitoring, approximately 22% of the total contract cost will be eligible for cost sharing awaiting approval from the Florida Department of Environmental Protection.

Attachment:

- 1. Contract

Recommended by: [Signature] 5/28/09
Department Director Date
Approved by: [Signature]
County Administrator Date

R2009 0860

CONTRACT FOR CONSULTING/PROFESSIONAL SERVICES

This Contract is made as of the _____ day of MAY 19 2009, 2009, by and between Palm Beach County, a Political Subdivision of the State of Florida, by and through its Board of Commissioners, hereinafter referred to as the COUNTY, and Florida Atlantic University Board of Trustees, a state university authorized to do business in the State of Florida, hereinafter referred to as the CONSULTANT, whose Federal I.D. is 65-0385507.

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 research and consultation services in the area of geographic information, as more specifically set forth in the Scope of Work detailed in Exhibit A.

The COUNTY'S representative/liaison during the performance of this Contract shall be Richard E. Walesky, telephone no. 561-233-2400.

The CONSULTANT'S representative/liaison during the performance of this Contract shall be as specified in Article 25.

ARTICLE 2 - SCHEDULE

The CONSULTANT shall commence services upon receipt of the COUNTY's written Notice to Proceed for each Task identified in Exhibit A and complete all services by January 31, 2010.

Reports and other items shall be delivered or completed in accordance with the detailed schedule set forth in Exhibit A.

ARTICLE 3 - PAYMENTS TO CONSULTANT

- A. The total amount to be paid by the COUNTY under this Contract for all services and materials shall be a total contract amount of fifty-eight thousand, two hundred Dollars (\$58,200). The CONSULTANT shall bill the COUNTY at the end of semesters: August 31, December 31 in accordance with the Scope of Work, Exhibit A.
- B. Invoices received from the CONSULTANT pursuant to this Contract will be reviewed and approved by the COUNTY's representative, to verify that services have been rendered in conformity with the Contract. Approved invoices will then be sent to the Finance Department for payment. Invoices will normally be paid within thirty (30) days following the COUNTY representative's approval.

- C. "Out-of-pocket" expenses including, but not limited to, mailing charges, copying fees, telephone charges and miscellaneous supplies will not be reimbursed under this Contract.
- D. Final Invoice: In order for both parties herein to close their books and records, the CONSULTANT will clearly state "final invoice" on the CONSULTANT'S final/last billing to the COUNTY. This shall constitute CONSULTANT'S certification that all services have been properly performed and all charges and costs have been invoiced to Palm Beach County. Any other charges not properly included on this final invoice are waived by the CONSULTANT.

ARTICLE 4 - TRUTH-IN-NEGOTIATION CERTIFICATE

Signature of this Contract by the CONSULTANT shall also act as the execution of a truth-in-negotiation certificate certifying that the wage rates, over-head charges, and other costs used to determine the compensation provided for in this Contract are accurate, complete and current as of the date of the Contract and no higher than those charged the CONSULTANT'S most favored customer for the same or substantially similar service.

The said rates and costs shall be adjusted to exclude any significant sums should the COUNTY determine that the rates and costs were increased due to inaccurate, incomplete or noncurrent wage rates or due to inaccurate representations of fees paid to outside consultants. The COUNTY shall exercise its rights under this Article 4 within three (3) years following final payment.

ARTICLE 5 - TERMINATION

This Contract may be terminated by the CONSULTANT upon sixty (60) days' prior written notice to the COUNTY's representative in the event of substantial failure by the COUNTY to perform in accordance with the terms of this Contract through no fault of the CONSULTANT. It may also be terminated, in whole or in part, by the COUNTY, with or without cause, immediately upon 30 days written notice to the CONSULTANT. Unless the CONSULTANT is in breach of this Contract, the CONSULTANT shall be paid for services rendered to the COUNTY'S satisfaction through the date of termination. After receipt of a Termination Notice and except as otherwise directed by the COUNTY the CONSULTANT shall:

- A. Stop work on the date and to the extent specified.
- B. Terminate and settle all orders and subcontracts relating to the performance of the terminated work.
- C. Transfer all work in process, completed work, and other materials related to the terminated work to the COUNTY.
- D. Continue and complete all parts of the work that have not been terminated.

ARTICLE 6 - PERSONNEL

The CONSULTANT represents that it has, or will secure at its own expense, all necessary personnel required to perform the services under this Contract. Such personnel shall not be employees of or have any contractual relationship with the COUNTY.

All of the services required herein shall be performed by the CONSULTANT or under its supervision, and all personnel engaged in performing the services shall be fully qualified and, if required, authorized or permitted under state and local law to perform such services.

Any changes or substitutions in the CONSULTANT'S key personnel, as may be listed in Exhibit A, must be made known to the COUNTY'S representative and written approval must be granted by the COUNTY'S representative before said change or substitution can become effective.

The CONSULTANT warrants that all services shall be performed by skilled and competent personnel to the highest professional standards in the field.

All of the CONSULTANT'S personnel (and all Subcontractors) while on COUNTY premises will comply with all COUNTY requirements governing conduct, safety and security.

ARTICLE 7 - FEDERAL AND STATE TAX

The COUNTY is exempt from payment of Florida State Sales and Use Taxes. The COUNTY will sign an exemption certificate submitted by the CONSULTANT unless the CONSULTANT is itself exempt. The CONSULTANT shall not be exempted from paying sales tax to its suppliers for materials used to fulfill contractual obligations with the COUNTY unless CONSULTANT is itself an exempt entity, nor is the CONSULTANT authorized to use the COUNTY'S Tax Exemption Number in securing such materials.

The CONSULTANT shall be responsible for payment of its own and its share of its employees' payroll, payroll taxes, and benefits with respect to this contract.

ARTICLE 8 - AVAILABILITY OF FUNDS

The COUNTY'S performance and obligation to pay under this contract for subsequent fiscal years is contingent upon annual appropriations for its purpose by the Board of County Commissioners.

ARTICLE 9 - INSURANCE

- A. CONSULTANT shall, at its sole expense, agree to maintain in full force and effect at all times during the life of this Contract, insurance coverages and limits

(including endorsements), as described herein. CONSULTANT shall agree to provide the COUNTY with at least ten (10) day prior notice of any cancellation, non-renewal or material change to the insurance coverages. The requirements contained herein, as well as COUNTY's review or acceptance of insurance maintained by CONSULTANT are not intended to and shall not in any manner limit or qualify the liabilities and obligations assumed by CONSULTANT under the contract.

- B. **General Liability** CONSULTANT shall maintain General Liability at a limit of liability not less than \$100,000/\$200,000.
- C. **Worker's Compensation Insurance & Employers Liability** CONSULTANT shall maintain Worker's Compensation & Employers Liability in accordance with Florida Statute Chapter 440.
- D. **Certificate(s) of Insurance** Prior to execution of this Contract, CONSULTANT shall deliver to the COUNTY's representative as identified in Article 31, a Certificate(s) of Insurance evidencing that all types and amounts of insurance coverages required by this Contract have been obtained and are in full force and effect. Such Certificate(s) of Insurance shall include a minimum ten (10) day endeavor to notify due to cancellation.
- E. **Right to Review** COUNTY, by and through its Risk Management Department, in cooperation with the contracting/monitoring department, reserves the right to review, modify, reject or accept any required policies of insurance, including limits, coverages, or endorsements, herein from time to time throughout the term of this Contract. COUNTY reserves the right, but not the obligation, to review and reject any insurer providing coverage because of its poor financial condition or failure to operate legally.

ARTICLE 10 - INDEMNIFICATION

Each Party shall be responsible for the acts or omissions of its officers, agents and employees, arising during and as a result of their performance of the terms of this Contract to the full extent required or permitted by applicable law. The COUNTY and CONSULTANT acknowledge the waiver of sovereign immunity for liability in tort contained in Florida Statute Section 768.28 and acknowledges that such statute permits actions at law against the COUNTY and CONSULTANT to recover damages in tort for money damages up to the amounts set forth in such statute for injury, loss of property, personal injury, or death caused by the negligence or wrongful act or omission of an employee of the COUNTY or CONSULTANT while acting in the scope of the employee's office or employment under circumstances in which the COUNTY or CONSULTANT, if a private person, would be liable under the general laws of this State.

ARTICLE 11 - SUCCESSORS AND ASSIGNS

The COUNTY and the CONSULTANT each binds itself and its partners, successors, executors, administrators and assigns to the other party and to the partners, successors, executors, administrators and assigns of such other party, in respect to all covenants of this Contract. Except as above, neither the COUNTY nor the CONSULTANT shall assign, sublet, convey or transfer its interest in this Contract without the prior written consent of the other. Nothing herein shall be construed as creating any personal liability on the part of any officer or agent of the COUNTY, nor shall it be construed as giving any rights or benefits hereunder to anyone other than the COUNTY and the CONSULTANT.

ARTICLE 12 - REMEDIES

This Contract shall be governed by the laws of the State of Florida. Any legal action necessary to enforce the Contract will be held in Palm Beach County. No remedy herein conferred upon any party is intended to be exclusive of any other remedy, and each and every such remedy shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing at law or in equity, by statute or otherwise. No single or partial exercise by any party of any right, power, or remedy hereunder shall preclude any other or further exercise thereof.

ARTICLE 13 - CONFLICT OF INTEREST

The CONSULTANT represents that it presently has no interest and shall acquire no interest, either direct or indirect, which would conflict in any manner with the performance of services required hereunder, as provided for in Chapter 112, Part III, Florida Statutes. The CONSULTANT further represents that no person having any such conflict of interest shall be employed for said performance of services.

The CONSULTANT shall promptly notify the COUNTY's representative, in writing, by certified mail, of all potential conflicts of interest of any prospective business association, interest or other circumstance which may influence or appear to influence the CONSULTANT'S judgment or quality of services being provided hereunder. Such written notification shall identify the prospective business association, interest or circumstance, the nature of work that the CONSULTANT may undertake and request an opinion of the COUNTY as to whether the association, interest or circumstance would, in the opinion of the COUNTY, constitute a conflict of interest if entered into by the CONSULTANT. The COUNTY agrees to notify the CONSULTANT of its opinion by certified mail within thirty (30) days of receipt of notification by the CONSULTANT. If, in the opinion of the COUNTY, the prospective business association, interest or circumstance would not constitute a conflict of interest by the CONSULTANT, the COUNTY shall so state in the notification and the CONSULTANT shall, at its option, enter into said association, interest or circumstance and it shall be deemed not in conflict of interest with respect to services provided to the COUNTY by the CONSULTANT under the terms of this Contract.

ARTICLE 14 - EXCUSABLE DELAYS

The CONSULTANT shall not be considered in default by reason of any failure in performance if such failure arises out of causes reasonably beyond the control of the CONSULTANT or its subcontractors and without their fault or negligence. Such causes include, but are not limited to, acts of God, force majeure, natural or public health emergencies, labor disputes, freight embargoes, and abnormally severe and unusual weather conditions.

Upon the CONSULTANT'S request, the COUNTY shall consider the facts and extent of any failure to perform the work and, if the CONSULTANT'S failure to perform was without it or its subcontractors fault or negligence, the Contract Schedule and/or any other affected provision of this Contract shall be revised accordingly, subject to the COUNTY'S rights to change, terminate, or stop any or all of the work at any time.

ARTICLE 15 - ARREARS

The CONSULTANT shall not pledge the COUNTY'S credit or make it a guarantor of payment or surety for any contract, debt, obligation, judgment, lien, or any form of indebtedness. The CONSULTANT further warrants and represents that it has no obligation or indebtedness that would impair its ability to fulfill the terms of this Contract.

ARTICLE 16 - DISCLOSURE AND OWNERSHIP OF DOCUMENTS

The CONSULTANT shall deliver to the COUNTY's representative for approval and acceptance, and before being eligible for final payment of any amounts due, all deliverables prepared by and for the COUNTY under this Contract in accordance with Exhibit A.

To the extent allowed by Chapter 119, Florida Statutes, all written and oral information not in the public domain or not previously known, and all information and data obtained, developed, or supplied by the COUNTY or at its expense will be kept confidential by the CONSULTANT and will not be disclosed to any other party, directly or indirectly, without the COUNTY'S prior written consent unless required by a lawful court order. All drawings, maps, sketches, programs, data base, reports and other data developed, or purchased, under this Contract for or at the COUNTY'S expense shall be and remain the COUNTY'S property and may be reproduced and reused at the discretion of the COUNTY.

The parties agree that the CONSULTANT may use the data and analysis derived from this Agreement in any future publication, thesis, or dissertation provided that notice is given to the COUNTY and the COUNTY is recognized in the publication or document.

All covenants, agreements, representations and warranties made herein, or otherwise made in writing by any party pursuant hereto, including but not limited to any representations made herein relating to disclosure or ownership of documents, shall survive the execution and delivery of this Contract and the consummation of the transactions contemplated hereby.

ARTICLE 17 - INDEPENDENT CONTRACTOR RELATIONSHIP

The CONSULTANT is, and shall be, in the performance of all work services and activities under this Contract, an Independent Contractor, and not an employee, agent, or servant of the COUNTY. All persons engaged in any of the work or services performed pursuant to this Contract shall at all times, and in all places, be subject to the CONSULTANT'S sole direction, supervision, and control. The CONSULTANT shall exercise control over the means and manner in which it and its employees perform the work, and in all respects the CONSULTANT'S relationship and the relationship of its employees to the COUNTY shall be that of an Independent Contractor and not as employees or agents of the COUNTY.

The CONSULTANT does not have the power or authority to bind the COUNTY in any promise, agreement or representation.

ARTICLE 18 - CONTINGENT FEES

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

ARTICLE 19 - ACCESS AND AUDITS

The CONSULTANT shall maintain adequate records to justify all charges, expenses, and costs incurred in estimating and performing the work for at least three (3) years after completion or termination of this Contract. The COUNTY shall have access to such books, records, and documents as required in this section for the purpose of inspection or audit during normal business hours, at the CONSULTANT'S place of business.

ARTICLE 20 - NONDISCRIMINATION

The CONSULTANT warrants and represents that all of its employees are treated equally during employment without regard to race, color, religion, disability, sex, age, national origin, ancestry, marital status, sexual orientation, gender identity or gender expression.

ARTICLE 21 - AUTHORITY TO PRACTICE

The CONSULTANT hereby represents and warrants that it has and will continue to maintain all licenses and approvals required conducting its business, and that it will at all times conduct its business activities in a reputable manner. Proof of such licenses and approvals shall be submitted to the COUNTY's representative upon request.

ARTICLE 22 - SEVERABILITY

If any term or provision of this Contract, or the application thereof to any person or circumstances shall, to any extent, be held invalid or unenforceable, the remainder of this Contract, or the application of such terms or provision, to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected, and every other term and provision of this Contract shall be deemed valid and enforceable to the extent permitted by law.

ARTICLE 23- PUBLIC ENTITY CRIMES

As provided in F.S. 287.132-133, by entering into this contract or performing any work in furtherance hereof, the CONSULTANT certifies that it, its affiliates, suppliers, subcontractors and consultants who will perform hereunder, have not been placed on the convicted vendor list maintained by the State of Florida Department of Management Services within the 36 months immediately preceding the date hereof. This notice is required by F.S. 287.133(3)(a).

ARTICLE 24 - MODIFICATIONS OF WORK

The COUNTY reserves the right to make changes in Scope of Work, including alterations, reductions therein or additions thereto. Upon receipt by the CONSULTANT of the COUNTY'S notification of a contemplated change, the CONSULTANT shall, in writing: (1) provide a detailed estimate for the increase or decrease in cost due to the contemplated change, (2) notify the COUNTY of any estimated change in the completion date, and (3) advise the COUNTY if the contemplated change shall affect the CONSULTANT'S ability to meet the completion dates or schedules of this Contract.

If the COUNTY so instructs in writing, the CONSULTANT shall suspend work on that portion of the Scope of Work affected by a contemplated change, pending the COUNTY'S decision to proceed with the change.

If the COUNTY elects to make the change, the COUNTY shall initiate a Contract Amendment and the CONSULTANT shall not commence work on any such change until such written amendment is approved and signed by the CONSULTANT and approved and executed on behalf of Palm Beach County.

ARTICLE 25 - NOTICE

All notices required in this Contract shall be sent by certified mail, return receipt requested, hand delivery or other delivery service requiring signed acceptance. If sent to the COUNTY, notices shall be addressed to:

Richard E. Walesky, Director
Department of Environmental Resources Management
2300 N Jog Road, 4th Floor
West Palm Beach, FL 33411

With copy to:

Palm Beach County
Attn: County Attorney for ERM
301 North Olive Avenue, Suite 601
West Palm Beach, FL 33401

If sent to the CONSULTANT, notices shall be addressed to:

Camille E. Coley, J.D.
Assistant V.P. for Research
Division of Research
Florida Atlantic University
777 Glades Road
Boca Raton, FL 33431

ARTICLE 26 - ENTIRETY OF CONTRACTUAL AGREEMENT

The COUNTY and the CONSULTANT agree that this Contract sets forth the entire agreement between the parties, and that there are no promises or understandings other than those stated herein. None of the provisions, terms and conditions contained in this Contract may be added to, modified, superseded or otherwise altered, except by written instrument executed by the parties hereto in accordance with Article 25- Modifications of Work.

ARTICLE 27 - CRIMINAL HISTORY RECORDS CHECK

The CONSULTANT shall comply with the provisions of Ordinance 2003-030, the Criminal History Records Check Ordinance ("Ordinance"), as amended from time to time, if CONSULTANT'S employees or subcontractors are required under this contract to enter a "critical facility" as identified in Resolution R-2003-1274. The CONSULTANT acknowledges and agrees that all employees and subcontractors who are to enter a "critical facility" will be subject to a fingerprint based criminal history records check. Although COUNTY agrees to pay for all applicable FDLE/FBI fees required for criminal history record checks, the CONSULTANT shall be solely responsible for the

financial, schedule, and staffing implications associated in complying with Ordinance 2003-030, as amended from time to time.

ARTICLE 28 – REGULATIONS: LICENSING REQUIREMENTS:

The CONSULTANT shall comply with all laws, ordinances and regulations applicable to the services contemplated herein, to include those applicable to conflict of interest and collusion. The CONSULTANT is presumed to be familiar with all federal, state and local laws, ordinances, codes and regulations that may in any way affect the services offered.

Remainder of page intentionally left blank.

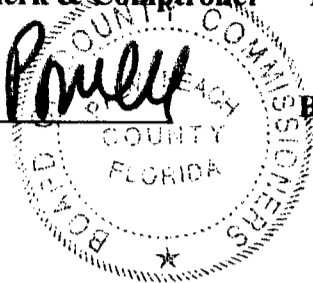
IN WITNESS WHEREOF, the Board of County Commissioners of Palm Beach County, Florida has made and executed this Contract on behalf of the COUNTY and CONSULTANT has hereunto set its hand the day and year above written.

R 2009.0860
PALM BEACH COUNTY MAY 19 2009

ATTEST:
Sharon R. Bock, Clerk & Comptroller

BOARD OF COUNTY COMMISSIONERS:

By: *Nancy Powell*
Deputy Clerk



By: *John F. Koons*
John F. Koons, Chairman

WITNESS:

CONSULTANT:

C. Elisa Gaucher
Signature

Florida Atlantic University

C. ELISA GAUCHER
Name (type or print)

Michael Moriarty
Signature

Nancy Thoman
Signature

Michael Moriarty, Ph.D.
Typed Name

Nancy Thoman
Name (type or print)

Interim VP for Research
Title

APPROVED AS TO FORM
AND LEGAL SUFFICIENCY

By: *[Signature]*
County Attorney

(corp. seal)

APPROVED AS TO
TERMS AND CONDITIONS

By: *Richard E. Walesky*
Richard E. Walesky, Director
Department of Environmental Resources Management

APPROVED AS TO FORM
AND LEGALITY
General Counsel *JAL*
5/8/09
Florida Atlantic University

**EXHIBIT A
SCOPE OF WORK (SOW)**

**NEARSHORE REEF ANALYSES AND QUANTIFICATION
PALM BEACH COUNTY**

1.0 BACKGROUND

The nearshore reefs adjacent to the Palm Beach County beaches are a unique marine habitat composed of coquina rock that is repeatedly exposed and recovered by shifting sands. This process is naturally affected by daily and seasonal changes in wave and wind regimes. Historically, the creation of the inlets has affected the degree of exposure of the nearshore reefs, and now this natural process is also periodically affected by beach nourishment projects, as well as inlet and Intracoastal Waterway dredging and spoil disposal.

The ecological value of the nearshore reefs is recognized; however, this importance may vary seasonally with fluctuations in the quantity and diversity of biota accessing or growing on the reefs, the areal extent of hardbottom exposure, the duration of exposure, the degree of relief and rugosity, and proximity to an inlet. The reefs also have a physical importance because they form a semi-permanent bar offshore which acts (in conjunction with shifting sand bars) to retard the rate of beach erosion and reduce the intensity of wave action on the beaches. Monitoring the extent of nearshore reef hardbottom exposure is one measure of the value of this system to Palm Beach County. This measure also helps guide management decisions affecting nearshore reefs and designs of future beach projects.

2.0 OBJECTIVES

In order to fulfill the objectives required by this SOW, the CONSULTANT, Dr. Charles Roberts, shall conduct research to:

- a) Develop a standardized automated or partially automated method with satisfactory Quality Assurance/Quality Control (QA/QC) procedures for digitizing nearshore resources and document methodologies;
- b) Compare results of automated method with hand-digitized reef maps showing an accuracy of 90% or greater;
- c) Digitize backlogged countywide aerials and summarize by resource types; and
- d) Summarize and compare trends in reef resources among the years of aerial data.

3.0 POINT OF CONTACT

All communication from the CONSULTANT to the COUNTY associated with this SOW shall be through Palm Beach County Environmental Resources Management Department (ERM) Project Manager, Dr. Janet Phipps telephone: (561) 233-2513, Email:

jphipps@pbcgov.org . In the event Dr. Phipps is unavailable, Carman Vare (561-233-2444) will act as an alternate contact.

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4.0 SCOPE OF WORK

This SOW is for conducting research to develop faster, cost-effective, and accurate, method for digitizing nearshore aerials; for the digitization of nearshore and beach resources from the existing and future annual countywide coastal aerials; and for the analysis, quantification, and comparisons of the resultant data. Coastal aerial data to be digitized include years 2005 through 2008 and 2009 when it becomes available. Data analyses shall include the above-mentioned years plus years 1993, 2000, 2001, 2003, and 2004; these years are digitized, and the data will be provided by the COUNTY. All tasks associated with this SOW shall be conducted by the CONSULTANT in accordance with established techniques outlined within this SOW. Work will be authorized by Task and will depend on satisfactory results from each previous Task.

5.0 WORK BREAKDOWN STRUCTURE

TASK 1. Develop an automated (or partially automated) method to more cost effectively digitize areal extents of reef and beach resources.

The intent in developing this automated method is to generate maps in a more cost effective method than hand digitizing, but also to expedite mapping to enable groundtruthing future year's aerials. Resources will be mapped by category type as shown in Table 1.

Table 1. Reef and Beach Category Types.

CATEGORY TYPE	DESCRIPTION OF CATEGORY
BASIC:	
ARTIFICIAL REEF	Manmade structures placed in the water as "reefs"
NEARSHORE REEF	Exposed hardbottom (reef) in waters less than 18 ft. depth
OFFSHORE REEF	Exposed hardbottom (reef) in waters greater than 18 ft.
NS REEF ROCK	Recently Exposed hardbottom (reef) minimal to no growth

NS REEF ALGAE	Exposed hardbottom (reef) with benthic growth evident
EMERGENT ROCK	Exposed hardbottom above the wrack line
BOULDER REVETMENT	Shore protection structure made up of limerock bounders
RUBBLE	Scattered rock in a specific area
BORROW_AREA	Depressional areas where sand has been removed by dredging
OPTIONAL:	
<i>DUNE VEGETATION</i>	<i>Vegetation within the dune system</i>
<i>SEAWALL</i>	<i>Vertical wall fronting a building or road</i>
<i>WRACK LINE</i>	<i>Debris (seaweeds, etc.) deposited above the water line</i>
<i>GROIN</i>	<i>Rock structure oriented shore perpendicular</i>
<i>PIER</i>	<i>Linear structure extending out over the water</i>
<i>PIPE/CABLE</i>	<i>Submerged pipe extending into nearshore waters</i>
UNKNOWN	Significant underwater shading not identified by above are and not fish or alga

The Optional Category Types *in italics* are addressed in Task 5.

The procedures for researching and developing and testing the automated methodology shall be as follows:

1. Classification: Computer classification shall consist of subsetting the mosaiced coastal imagery and applying an unsupervised classification using either Leica Erdas Imagine or Erdas Image Analyst in Arc-Info. The resulting classification will be density sliced to identify classes. The classified image will be imported into Adobe Photoshop where remaining reef structure not picked up in the unsupervised classification, such as rock, will be added to the reef categories using the magic wand tool.
2. QA/QC of Classified Image: A quality control procedure may be applied here to insure that 90% to 95% of the features or better are appropriately classified. This will consist of a full accuracy assessment as described in Task 2 to a simple overlaying of the polygons on the imagery and on the 2003-2004 reefs to look for any discrepancies that need correction.
3. Recoding to Table 1 classes: Once the many classes are identified as belonging to the category types defined above, a recoding will be undertaken to place all classes that represent similar category types in the same category.
4. Raster to Vector Conversion: A raster to vector conversion will be undertaken. The classes that are not being utilized in this study will then be removed (e.g., sandy bottom).
5. QA/QC of final coverage: A QC procedure will be applied to the vector coverages of the polygons, emphasizing labeling errors by the CONSULTANT P.I. The goal will be to identify any mistakes introduced in the stages after the

initial classification. The method will be to convert the polygon coverage back to a raster coverage and then subtract one image from another. Since each raster consists of a class number, the resulting file should be composed entirely of zeros. (Any non-zeros will represent a change from the original classification, i.e., a mistake in editing classes, and this represents a 100% sampling of the vector coverage.) All mistakes shall be identified and corrected.

6. Merging of Subsetted Vector coverages: The initial classification involves subsetting pieces of the mosaiced aerial photograph shapefile. After the classification and raster to vector conversion and the QA/QC of the final vector coverage, the individual layers will be merged into a single file. QA/QC will be performed along the boundary of the merged subset vector layer; every polygon will be checked for shape and classification accuracy.
7. Documentation of Task 1 procedures:
 - a. A training manual will be developed showing step by step procedures for training in this methodology. Since the same company that produces Leica Erdas Imagine also produces Image Analyst, a plug in for ESRI products, the training manual will be designed for the Image Analyst software.
 - b. Work flow sheets that show basic information on every step of the project will be compiled.

TASK 2. Compare results of the automated method with previously hand-digitized method.

Imagery and geodatabases from the hand-digitized years 2003 and 2004 for 3 shoreline project locations (Juno, Singer Island, and South Palm Beach) will be provided by the COUNTY for CONSULTANT to conduct research to compare with the automated results to ensure an accuracy of 90% to 95% or greater. If accuracy falls below 95%, CONSULTANT will notify the COUNTY, and a determination will be made if additional tasks need to be added.

The following research comparison analysis will be conducted to validate the automated method:

- A. Conduct accuracy assessments on the results of the automated reef mapping by comparisons of 204 stratified random sample points taken from the new machine-classified geodatabase and compare to (1) the original photograph from which the reef geodatabase was mapped, and (2) to the hand-digitized geodatabase previously created by the COUNTY. Perform an analysis of the structure of the errors including errors of omission and commission, producers and users accuracy for both the hand-digitized geodatabase and the machine-classified geodatabase. Each error will be analyzed to determine the cause of the error. This will be done twice, once for 2003 imagery and reef geodatabase and once for 2004 imagery and reef geodatabase.

- B. Using the machine classified geodatabase and the hand-digitized geodatabase, perform an analysis of differences between the two databases, with a report that examines the area and percent area difference in machine-classification versus hand-digitizing for 2003 and 2004 for each category of information and produce a map that shows where areas are the same or where they are different between the two classification methods for both the 2003 and 2004 geodatabases.

Documentation of Task 2 procedures: A research comparison report shall be developed that contains the steps, flow sheets, maps, and results of the comparisons and accuracy assessments completed in Task 2. It shall also contain the structure of errors and explanations on how errors were corrected for future mapping. **Approval of this comparison report by the COUNTY shall occur prior to commencing Task 3.**

TASK 3. Digitize countywide aerials and prepare areal summaries (square feet and/or acreages) for each basic reef resource category type.

Digitizing the years 2005, 2006, 2007, and 2008 will focus on the basic (*non-italicized*) Category Types in Table 1. The priority order for the years will be to start with the most recent year and work through to the oldest. The aerials for 2009 shall also be digitized when they become available. All data shall be maintained in a geodatabase and be segmented by R monument intervals for each year. The COUNTY will provide the CONSULTANT with an electronic file of the R monument intervals.

QA/QC procedures will be instituted by and overseen by the CONSULTANT P.I. This will consist of random quality checks of the work of each student at each step of the operation during the initial training period, which will end when the student has successfully mapped two photos and merged the polygons together accurately. Digital Work Flow Forms will be filled out as each step is completed so that the work flow is documented, and problem areas can easily be identified. Each graduate student will produce a product and a complete accuracy assessment will be made of that product. When the students achieve an accuracy level of 90% or better, they will then work independently with random quality checks of each step of each completed product, with emphasis on the finished, classified raster maps and the final polygon coverages.

TASK 4. Research to summarize and compare trends in the reef Category Types over time.

The purpose of this Task is to look at changes in the resource types by time and by location, as well as at specific locations along the coast under differing influences. Hence, comparisons of changes by inlet interval and by project are important, especially when compared to the 1993 data. The first set of comparisons to be completed will be for the priority interval that is the Jupiter Inlet to Lake Worth Inlet interval that also contains the Jupiter/Carlin, Juno, and Singer Island beach nourishment project intervals. This set of comparisons will establish the methodology for the rest of the comparisons.

The reef category types to be compared are the nearshore and offshore reefs. The units for comparison will be countywide; by inlet intervals; and by beach nourishment project intervals; all compared among the years of data.

For the purposes of comparisons, the inlet intervals are defined as: County line to Jupiter Inlet, Jupiter Inlet to Lake Worth Inlet (priority), Lake Worth Inlet to South Lake Worth Inlet, South Lake Worth Inlet to Boca Raton Inlet, and Boca Raton Inlet to south county line. Beach nourishment project intervals are defined as the areas within the following DEP R-Monument numbers: Jupiter/Carlin: R-12½-19; Juno: R-26-38; Singer Island: R-60-70; South Palm Beach: R-135-142; South Lake Worth Inlet Management: R-143-152; and Ocean Ridge: R-153-164.

The geodatabases for the years 1993, 2000, 2001, 2003, 2004, that were previously hand-digitized will be provided by the COUNTY. The CONSULTANT will subdivide each of these older geodatabases into 5 inlet intervals, and 6 beach nourishment intervals as approved by the COUNTY.

A post-classification change detection analysis will be performed on each time pair, i.e. 1993-2000, 2000-2001, etc. for the priority interval/projects to the final hand-digitized maps of 2004. Then a second series of analyses, including the machine-classified year pairs will occur. Lastly, a comparison of the hand-digitized 2004 will be compared to the machine-classified 2005 will be made. This analysis will include a geodatabase of changes between the time periods, and a report that will summarize the type of change and area of change between each pair of categories. (reef to sand, sand to reef, etc.). In addition a new category will be created: persistent reef, which will be defined as reef present at all times.

The rest of the comparisons of specific date-pairs for specific location intervals will be completed according to the following table:

Years/ Intervals**	1993- 2000	2000- 2001	2001- 2003	2003- 2004	2004- 2005	2005- 2006	2006- 2007	2007- 2008	2008- 2009	1993- 2004	1993- 2009	2004- 2006	2004- 2009
Co - Jup	X				X	X				X	X	X	X
Jup - LWI	X	X	X	X	X	X	X	X	X	X	X	X	X
LWI - SLWI	X		X		X	X				X	X	X	X
SLWI-Boca	X		X	X	X	X		X		X	X	X	X
Boca - Co	X		X		X	X				X	X	X	X
J/C	X	X	X	X	X	X	X	X	X				
Juno	X	X	X	X	X	X	X	X	X				
SI	X	X	X	X	X	X	X	X	X				
SPB	X												
SLWIM	X					X	X	X	X				
OR	X					X	X	X	X				
TOTAL:	11	4	7	5	8	10	6	7	6	5	5	5	5

A total of 84 date comparisons.

**Co-Jup = County Line to Jupiter Inlet; Jup - LWI = Jupiter Inlet to Lake Worth Inlet; LWI - SLWI = Lake Worth Inlet to South Lake Worth Inlet; SLWI - Boca = South Lake Worth Inlet to Boca Raton Inlet; Boca - Co = Boca Raton Inlet to south County Line; Beach Projects: J/C = Jupiter/Carlin; Juno = Juno; SI = Singer Island; SPB = South Palm Beach; SLWIM = South Lake Worth Inlet Management; and OR = Ocean Ridge.

TASK 5. This research will digitize countywide aerials and prepare areal summaries (linear distance, square feet and/or acreages) for the Optional reef resource category types.

Digitizing the years 2005, 2006, 2007, and 2008 will focus on the *italicized* Category Types in Table 1 (DUNE_VEGETATION, SEAWALL, WRACK_LINE, GROIN, PIER, PIPE/CABLE). The priority order for the years will be to start with the most recent year and work through to the oldest. The aerials for 2009 shall also be digitized when they become available. All data shall be maintained in the geodatabases for each year.

QA/QC procedures will be undertaken by the CONSULTANT P.I. This will consist of random quality checks of the work of each student at each step of the operation during the initial training period. Digital Work Flow Forms will be filled out as each step is completed so that the work flow is documented, and problem areas can easily be identified. Each feature digitized by these students will be checked by the CONSULTANT P.I. or by the senior graduate student. The procedure will represent a 100% sampling of digitized features.

The trend analyses described in Task 4 will not be performed for the Optional Category Types digitized in this Task.

6.0 DELIVERABLES

TASK 1: An electronic copy of the draft training manual shall be submitted to the COUNTY for review and comments upon completion of Task 1 or no later than three (3) weeks after issuance of the Notice to Proceed (NP). This training manual shall outline and explain the developed methods and include QA/QC procedures. In addition, a work flow sheet showing basic information on every step of the project shall be included. The COUNTY shall provide comments to CONSULTANT, and the Final training manual shall continue to be expanded upon during completion of the subsequent tasks. One hard copy and one electronic copy of the final training manual shall be submitted with the Task 4 (and 5) Final Report.

TASK 2: The comparison report shall be submitted to the COUNTY for review in hard and electronic formats as soon as possible but no later than three (3) weeks after issuance of the Notice to Proceed (NP). The report shall include a map that shows where areas are the same or where they are different between the two classification methods for both the 2003 and 2004 geodatabases and an analyses of the differences (the structure of

errors) including errors of omission and commission, producers and users accuracy for both the hand-digitized geodatabase and the machine-classified geodatabase.

TASK 3: Initially, the data and maps for all years for the priority intervals (Jupiter Inlet to Lake Worth Inlet with Jupiter/Carlin, Juno, and Singer Island beach projects), shall be retained in a single geodatabase and submitted to the COUNTY in electronic format for review no later than seven (7) weeks after issuance of the Notice to Proceed (NP). The COUNTY will make every effort to expeditiously review this submittal and provide comments to the CONSULTANT. Satisfactorily addressing the COUNTY's review comments must occur before commencing Task 4.

The completed data and maps for all years for Tasks 3 shall be submitted to the COUNTY in electronic format for review fourteen (14) weeks after issuance of the Notice to Proceed (NP). The coordinate system for the geodatabase shall be State Plane NAD 1983, Harn, Florida East Coast, FIPs 0901 measured in feet. The summary tables of areal extents for each category type shall be broken down by Category Type and year and by R monument interval. Upon receipt of the COUNTY's approval, CONSULTANT shall proceed with development and submittal of the final geodatabases and tables eighteen (18) weeks after issuance of the Notice to Proceed (NP). A metadata worksheet in the form provided by the COUNTY shall be provided with each geodatabase. Evidence of quality control performed and level of accuracy shall be provided.

TASKS 4: A draft of the Final Report including maps, graphs, and tables to show comparisons and evaluations of changes and trends over time and beach intervals shall be submitted to the COUNTY for review and comment twenty-eight (28) weeks after issuance of the Notice to Proceed (NP), and the COUNTY shall provide comments to CONSULTANT. The CONSULTANT shall have thirty (30) days to incorporate the comments and submit two (2) hard copies and one (1) electronic copy of the Final Report. In addition, the final training manual with work flow sheets, including all updates from the various accuracy assessments and analyses of the structure of errors, shall also be submitted. The geodatabase shall be provided in electronic format subdivided by R Monuments as well as not subdivided.

TASK 5: The completed data and maps for all years for Task 5 shall be included with the Task 3 submittals. The coordinate system for the geodatabase shall be State Plane NAD 1983, Harn, Florida East Coast, FIPs 0901 measured in feet. The summary tables of linear/areal extents for each category type shall be broken down by Category Type and year and by R monument interval. Upon receipt of the COUNTY's approval, CONSULTANT shall proceed with development and submittal of the final

geodatabases and tables twenty-eight (28) weeks after issuance of the Notice to Proceed (NP). A metadata worksheet in the form provided by the COUNTY shall be provided with each geodatabase.

7.0 REPORTING

All data shall be maintained in a single geodatabase and reports shall be submitted in Microsoft Word. The CONSULTANT shall submit monthly reports by the 5th day of each month to provide a summary of work performed the previous month.

8.0 SUMMARY OF DELIVERABLE AND PAYMENT SCHEDULES

TASK DELIVERABLE	COST	DUE (WKS AFTER NP)
Task 1 and 2	\$1,200	3 weeks
Task 3	\$25,000	18 weeks
Task 4	\$24,000	28 weeks
Task 5	\$8,000	28 weeks

9.0 PAYMENT

Invoices may be submitted for each Task when completed and approved. The total amount for which the CONSULTANT shall be compensated shall not exceed a total contract amount of fifty-eight thousand two dollars (\$58,200).



CHIEF FINANCIAL OFFICER
STATE OF FLORIDA

ALEX SINK
STATE RISK MANAGEMENT TRUST FUND

CERTIFICATE OF COVERAGE

Policy Number: GL-08-0201 GENERAL LIABILITY

Name Insured: FLORIDA ATLANTIC UNIVERSITY

General Liability Coverage provided pursuant to Chapter 284, Part II, Section 768.28, Florida Statutes, and any rules promulgated thereunder.

Coverage Limits:

General Liability: \$100,000.00 each person
\$200,000.00 each occurrence

Inception Date: 7/1/08

Expiration Date: 7/1/09

Alex Sink

Chief Financial Officer

D14-863
(REV. 3/01)

DEPARTMENT OF FINANCIAL SERVICES
THE CAPITOL, TALLAHASSEE, FLORIDA 32399-0301 • (850) 413-2850 • TELECOPIER (850) 413-2950



CHIEF FINANCIAL OFFICER
STATE OF FLORIDA

ALEX SINK
STATE RISK MANAGEMENT TRUST FUND

CERTIFICATE OF COVERAGE

Policy Number: WC-08-0201 STATE EMPLOYEE WORKERS'
COMPENSATION and EMPLOYER'S
LIABILITY

Name Insured: FLORIDA ATLANTIC UNIVERSITY

Coverage Limits:

Coverage A - Compensation coverage is provided to comply with the applicable State Workers' Compensation, Occupational Disease Laws and any rule promulgated thereunder.

Coverage B \$100,000.00 each person
\$200,000.00 each occurrence

Inception Date: 7/1/08

Expiration Date: 7/1/09

Alex Sink

Chief Financial Officer

D14-867
(REV. 3/01)

STATE OF FLORIDA, COUNTY OF PALM BEACH
I, SHARON R. BOCK, Clerk & Computer Operator certify
this to be a true and correct copy of the original
filed in my office on MAY 19 2009
dated at West Palm Beach, FL on 5-21-2009
By *Sharon R. Bock*
Deputy Clerk

AMENDMENT NUMBER 1 TO THE CONTRACT FOR CONSULTING/PROFESSIONAL SERVICES

THIS AMENDMENT NUMBER 1 is made as of the 1st day of February, 2010, to the Contract for Consulting/Professional Services dated May 19, 2009, (the "Contract") by and between Palm Beach County, a Political Subdivision of the State of Florida, by and through its Board of Commissioners, hereinafter referred to as the COUNTY, and Florida Atlantic University Board of Trustees, a state university authorized to do business in the State of Florida, hereinafter referred to as the CONSULTANT, whose Federal Employer Identification Number is 65-0385507.

WITNESSETH:

WHEREAS, the parties desire to amend the Contract for Consulting/Professional Services dated May 19, 2009 (R2009-0860) to extend the termination date of the Contract from January 31, 2010 to September 30, 2010.

NOW, THEREFORE, in consideration of the mutual promises contained herein, the parties agree as follows:

1. Article 2 of the Contract is hereby amended by replacing the Contract completion date of January 31, 2009 with September 30, 2010.
2. The Scope of Work attached to the contract as Exhibit A is hereby deleted and replaced with the Revised Scope of Work attached hereto as Exhibit A.
3. Except as expressly provided herein, all terms and conditions of the Contract remain in full force and effect.

IN WITNESS WHEREOF, the Director of the Department of Environmental Resources Management has made and executed this Amendment on behalf of the COUNTY and CONSULTANT has hereunto set its hand the day and year above written.

PALM BEACH COUNTY FOR ITS BOARD OF COUNTY COMMISSIONERS:

APPROVED AS TO FORM AND LEGAL SUFFICIENCY

By: *Richard E. Walesky*
Richard E. Walesky, Director
Department of Environmental Resources Management

By: *M... T...*
Assistant County Attorney

WITNESS:

**CONSULTANT:
FLORIDA ATLANTIC UNIVERSITY**

Signature

JoAnn Moretti
Signature

Name (Type or Print)

**JoAnn Moretti
Director
Sponsored Programs
Florida Atlantic University**

Name (Type or Print)

Signature

Title

Name (Type or Print)

**APPROVED AS TO FORM AND LEGALITY
General Counsel
Florida Atlantic University** *JA 2/29/10*

**EXHIBIT A
REVISED SCOPE OF WORK (SOW)**

**NEARSHORE REEF ANALYSES AND QUANTIFICATION
PALM BEACH COUNTY**

1.0 BACKGROUND

The nearshore reefs adjacent to the Palm Beach County beaches are a unique marine habitat composed of coquina rock that is repeatedly exposed and recovered by shifting sands. This process is naturally affected by daily and seasonal changes in wave and wind regimes. Historically, the creation of the inlets has affected the degree of exposure of the nearshore reefs, and now this natural process is also periodically affected by beach nourishment projects, as well as inlet and Intracoastal Waterway dredging and spoil disposal.

The ecological value of the nearshore reefs is recognized; however, this importance may vary seasonally with fluctuations in the quantity and diversity of biota accessing or growing on the reefs, the areal extent of hardbottom exposure, the duration of exposure, the degree of relief and rugosity, and proximity to an inlet. The reefs also have a physical importance because they form a semi-permanent bar offshore which acts (in conjunction with shifting sand bars) to retard the rate of beach erosion and reduce the intensity of wave action on the beaches. Monitoring the extent of nearshore reef hardbottom exposure is one measure of the value of this system to Palm Beach County. This measure also helps guide management decisions affecting nearshore reefs and designs of future beach projects.

2.0 OBJECTIVES

In order to fulfill the objectives required by this SOW, the CONSULTANT, Dr. Charles Roberts, shall conduct research to:

- a) Develop a standardized automated or partially automated method with satisfactory Quality Assurance/Quality Control (QA/QC) procedures for digitizing nearshore resources and document methodologies;
- b) Compare results of automated method with hand-digitized reef maps showing an accuracy of 90% or greater;
- c) Digitize backlogged countywide aerials and summarize by resource types; and
- d) Summarize and compare trends in reef resources among the years of aerial data.

3.0 POINT OF CONTACT

All communication from the CONSULTANT to the COUNTY associated with this SOW shall be through Palm Beach County Environmental Resources Management Department (ERM) **Project Manager, Dr. Janet Phipps telephone: (561) 233-2513, Email: jphipps@pbcgov.org** . In the event Dr. Phipps is unavailable, Carman Vare (561-233- 2444) will act as an alternate contact.

All communication between the COUNTY and the CONSULTANT shall be done through the Project Manager unless directed otherwise by the Project Manager or in the Contract for

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The COUNTY reserves the right to authorize or decline to authorize each Task in this SOW. This decision will be at the sole discretion of the COUNTY and will be communicated in writing to the CONSULTANT. CONSULTANT shall not be paid for completion of any Task unless authorized by the COUNTY and shall not be paid for Tasks undertaken but not completed or not properly completed.

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RUBBLE	Scattered rock in a specific area
BORROW AREA	Depressional areas where sand has been removed by dredging

OPTIONAL:	
<i>DUNE VEGETATION</i>	<i>Vegetation within the dune system</i>
<i>SEAWALL</i>	<i>Vertical wall fronting a building or road</i>
<i>WRACK LINE</i>	<i>Debris (seaweeds, etc.) deposited above the water line</i>
<i>GROIN</i>	<i>Rock structure oriented shore perpendicular</i>
<i>PIER</i>	<i>Linear structure extending out over the water</i>
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UNKNOWN	Significant underwater shading not identified by above are and not fish or alga

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3. Recoding to Table 1 classes: Once the many classes are identified as belonging to the category types defined above, a recoding will be undertaken to place all classes that represent similar category types in the same category.
4. Raster to Vector Conversion: A raster to vector conversion will be undertaken. The classes that are not being utilized in this study will then be removed (e.g., sandy bottom).
5. QA/QC of final coverage: A QC procedure will be applied to the vector coverages of the polygons, emphasizing labeling errors by the CONSULTANT P.I. The goal will be to identify any mistakes introduced in the stages after the initial classification. The method will be to convert the polygon coverage back to a raster coverage and then subtract one image from another. Since each raster consists of a class number, the resulting file should be composed entirely of zeros. (Any non-zeros will represent a change from the original classification, i.e., a mistake in editing classes, and this represents a 100% sampling of the vector coverage.) All mistakes shall be identified and corrected.
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vector conversion and the QA/QC of the final vector coverage, the individual layers will be merged into a single file. QA/QC will be performed along the boundary of the merged subset vector layer; every polygon will be checked for shape and classification accuracy.

7. Documentation of Task 1 procedures:

- a. A training manual will be developed showing step by step procedures for training in this methodology.
- b. Work flow sheets that show basic information on every step of the project will be compiled.

TASK 2. Compare results of the automated method with previously hand-digitized method.

Imagery and geodatabases from the hand-digitized years 2003 and 2004 for 3 shoreline project locations (Juno, Singer Island, and South Palm Beach) will be provided by the COUNTY for CONSULTANT to conduct research to compare with the automated results to ensure an accuracy of 90% to 95% or greater. If accuracy falls below 95%, CONSULTANT will notify the COUNTY, and a determination will be made if additional tasks need to be added.

The following research comparison analysis will be conducted to validate the automated method:

- A. Conduct accuracy assessments on the results of the automated reef mapping by comparisons of 204 stratified random sample points taken from the new machine-classified geodatabase and compare to (1) the original photograph from which the reef geodatabase was mapped, and (2) to the hand-digitized geodatabase previously created by the COUNTY. Perform an analysis of the structure of the errors including errors of omission and commission, producers and users accuracy for both the hand-digitized geodatabase and the machine-classified geodatabase. Each error will be analyzed to determine the cause of the error. This will be done twice, once for 2003 imagery and reef geodatabase and once for 2004 imagery and reef geodatabase.
- B. Using the machine classified geodatabase and the hand-digitized geodatabase, perform an analysis of differences between the two databases, with a report that examines the area and percent area difference in machine-classification versus hand-digitizing for 2003 and 2004 for each category of information and produce a map that shows where areas are the same or where they are different between the two classification methods for both the 2003 and 2004 geodatabases.

Documentation of Task 2 procedures: A research comparison report shall be developed that contains the steps, flow sheets, maps, and results of the comparisons and accuracy assessments completed in Task 2. It shall also contain the structure of errors and explanations on how errors were corrected for future mapping. **Approval of this comparison report by the COUNTY shall occur prior to commencing Task 3.**

TASK 3. Digitize countywide aerials and prepare areal summaries (square feet and/or acreages) for each basic reef resource category type.

Digitizing the years 2005, 2006, 2007, and 2008 will focus on the basic (non-*italicized*) Category Types in Table 1. The priority order for the years will be to start with the most recent year and work through to the oldest. The aerials for 2009 shall also be digitized when they become available. All data shall be maintained in a geodatabase and be segmented by R monument intervals for each year. The COUNTY will provide the CONSULTANT with an electronic file of the R monument intervals.

QA/QC procedures will be instituted by and overseen by the CONSULTANT P.I. This will consist of random quality checks of the work of each student at each step of the operation during the initial training period, which will end when the student has successfully mapped two photos and merged the polygons together accurately. Digital Work Flow Forms will be filled out as each step is completed so that the work flow is documented, and problem areas can easily be identified. Each graduate student will produce a product and a complete accuracy assessment will be made of that product. When the students achieve an accuracy level of 90% or better, they will then work independently with random quality checks of each step of each completed product, with emphasis on the finished, classified raster maps and the final polygon coverages.

TASK 4. Research to summarize and compare trends in the reef Category Types over time.

The purpose of this Task is to look at changes in the resource types by time and by location, as well as at specific locations along the coast under differing influences. Hence, comparisons of changes by inlet interval and by project are important, especially when compared to the 1993 data. The first set of comparisons to be completed will be for the priority interval that is the Jupiter Inlet to Lake Worth Inlet interval that also contains the Jupiter/Carlin, Juno, and Singer Island beach nourishment project intervals. This set of comparisons will establish the methodology for the rest of the comparisons.

The reef category types to be compared are the nearshore and offshore reefs. The units for comparison will be countywide; by inlet intervals; and by beach nourishment project intervals; all compared among the years of data.

For the purposes of comparisons, the inlet intervals are defined as: County line to Jupiter Inlet, Jupiter Inlet to Lake Worth Inlet (priority), Lake Worth Inlet to South Lake Worth Inlet, South Lake Worth Inlet to Boca Raton Inlet, and Boca Raton Inlet to south county line. Beach nourishment project intervals are defined as the areas within the following DEP R-Monument numbers: **Jupiter/Carlin: R-12½-19; Juno: R-26-38; Singer Island: R-60-70; South Palm Beach: R-135-143; South Lake Worth Inlet Management: R-143-153; and Ocean Ridge: R-153-164.**

The geodatabases for the years 1993, 2000, 2001, 2003, 2004, that were previously hand-digitized will be provided by the COUNTY. The CONSULTANT will subdivide each of these

older geodatabases into 5 inlet intervals, and 6 beach nourishment intervals as approved by the COUNTY.

A post-classification change detection analysis will be performed on each time pair, i.e. 1993-2000, 2000-2001, etc. for the priority interval/projects to the final hand-digitized maps of 2004. Then a second series of analyses, including the machine-classified year pairs will occur. Lastly, a comparison of the hand-digitized 2004 will be compared to the machine-classified 2005 will be made. This analysis will include a geodatabase of changes between the time periods, and a report that will summarize the type of change and area of change between each pair of categories. (reef to sand, sand to reef, etc.). In addition a new category will be created: persistent reef, which will be defined as reef present at all times.

The rest of the comparisons of specific date-pairs for specific location intervals will be completed according to the following table:

Years/ Intervals**	1993- 2000	2000- 2001	2001- 2003	2003- 2004	2004- 2005	2005- 2006	2006- 2007	2007- 2008	2008- 2009	1993- 2004	1993- 2009	2004- 2006	2004- 2009
Co - Jup	X				X	X				X	X	X	X
Jup - LWI	X	X	X	X	X	X	X	X	X	X	X	X	X
LWI - SLWI	X		X		X	X				X	X	X	X
SLWI-Boca	X		X	X	X	X		X		X	X	X	X
Boca - Co	X		X		X	X				X	X	X	X
J/C	X	X	X	X	X	X	X	X	X				
Juno	X	X	X	X	X	X	X	X	X				
SI	X	X	X	X	X	X	X	X	X				
SPB	X												
SLWIM	X					X	X	X	X				
OR	X					X	X	X	X				
TOTAL:	11	4	7	5	8	10	6	7	6	5	5	5	5

A total of 84 date comparisons.

**Co-Jup = County Line to Jupiter Inlet; Jup - LWI = Jupiter Inlet to Lake Worth Inlet; LWI - SLWI = Lake Worth Inlet to South Lake Worth Inlet; SLWI - Boca = South Lake Worth Inlet to Boca Raton Inlet; Boca - Co = Boca Raton Inlet to south County Line; Beach Prjoects: J/C = Jupiter/Carlin; Juno = Juno; SI = Singer Island; SPB = South Palm Beach; SLWIM = South Lake Worth Inlet Management; and OR = Ocean Ridge.

TASK 5. This research will digitize countywide aerials and prepare areal summaries (linear distance, square feet and/or acreages) for the Optional reef resource category types.

Digitizing the years 2005, 2006, 2007, and 2008 will focus on the *italicized* Category Types in Table 1 (DUNE_VEGETATION, SEAWALL, WRACK_LINE, GROIN, PIER, PIPE/CABLE). The priority order for the years will be to start with the most recent year and work through to the oldest. The aerials for 2009 shall also be digitized when they become available. All data shall be maintained in the geodatabases for each year.

QA/QC procedures will be undertaken by the CONSULTANT P.I. This will consist of random quality checks of the work of each student at each step of the operation during the initial training period. Digital Work Flow Forms will be filled out as each step is completed so that the work flow is documented, and problem areas can easily be identified. Each feature digitized by these students will be checked by the CONSULTANT P.I. or by the senior graduate student. The procedure will represent a 100% sampling of digitized features.

The trend analyses described in Task 4 will not be performed for the Optional Category Types digitized in this Task.

6.0 DELIVERABLES

TASK 1: An electronic copy of the draft training manual shall be submitted to the COUNTY for review and comments upon completion of Task 1 or no later than three (3) weeks after issuance of the Notice to Proceed (NP). This training manual shall outline and explain the developed methods and include QA/QC procedures. In addition, a work flow sheet showing basic information on every step of the project shall be included. The COUNTY shall provide comments to CONSULTANT, and the Final training manual shall continue to be expanded upon during completion of the subsequent tasks. One hard copy and one electronic copy of the final training manual shall be submitted with the Task 4 (and 5) Final Report.

TASK 2: The comparison report shall be submitted to the COUNTY for review in hard and electronic formats as soon as possible but no later than three (3) weeks after issuance of the Notice to Proceed (NP). The report shall include a map that shows where areas are the same or where they are different between the two classification methods for both the 2003 and 2004 geodatabases and an analyses of the differences (the structure of errors) including errors of omission and commission, producers and users accuracy for both the hand-digitized geodatabase and the machine-classified geodatabase.

TASK 3: The completed data and maps for all years for Tasks 3 shall be submitted to the COUNTY in electronic format for review by April 30, 2010. The coordinate system for the geodatabase shall be State Plane NAD 1983, Harn, Florida East Coast, FIPs 0901 measured in feet. The summary tables of areal extents for each category type shall be broken down by Category Type and year and by R monument interval. (Sixty (60) days after) receipt of the COUNTY's approval, CONSULTANT shall proceed with development and submittal of the final geodatabases and tables. A metadata worksheet in the form provided by the COUNTY shall be provided with each geodatabase. Evidence of quality control performed and level of accuracy shall be provided.

TASKS 4: A draft of the Final Report including maps, graphs, and tables to show comparisons and evaluations of changes and trends over time and beach intervals shall be submitted to the COUNTY for review and comment by May 15, 2010, and the COUNTY shall provide comments to CONSULTANT. The

CONSULTANT shall have sixty (60) days to incorporate the comments and submit two (2) hard copies and one (1) electronic copy of the Final Report. In addition, the final training manual with work flow sheets, including all updates from the various accuracy assessments and analyses of the structure of errors, shall also be submitted. The geodatabase shall be provided in electronic format subdivided by R Monuments as well as not subdivided.

TASK 5: The completed data and maps for all years for Tasks 5 shall be submitted to the COUNTY in electronic format for review by April 30, 2010. The coordinate system for the geodatabase shall be State Plane NAD 1983, Harn, Florida East Coast, FIPs 0901 measured in feet. The summary tables of linear/areal extents for each category type shall be broken down by Category Type and year and by R monument interval. Sixty (60) days after receipt of the COUNTY's approval, CONSULTANT shall proceed with development and submittal of the final geodatabases and tables. A metadata worksheet in the form provided by the COUNTY shall be provided with each geodatabase.

7.0 REPORTING

All data shall be maintained in a single geodatabase and reports shall be submitted in Microsoft Word. The CONSULTANT shall submit monthly reports by the 5th day of each month to provide a summary of work performed the previous month.

8.0 SUMMARY OF DELIVERABLE AND PAYMENT SCHEDULES

TASK DELIVERABLE	COST	DRAFTS DUE
Task 1 and 2	\$1,200	3 weeks after NTP
Task 3	\$25,000	April 30
Task 4	\$24,000	May 15
Task 5	\$8,000	April 30

9.0 PAYMENT

Invoices may be submitted for each Task when completed and approved. The total amount for which the CONSULTANT shall be compensated shall not exceed a total contract amount of fifty-eight thousand two dollars (\$58,200).

Exhibit "C"

**AMENDMENT NUMBER 2 TO THE CONTRACT FOR
CONSULTING/PROFESSIONAL SERVICES**

THIS AMENDMENT NUMBER 2 is made as of the 21st day of September, 2010, to the Contract for Consulting/Professional Services dated May 19, 2009, (the "Contract") and amended on February 1, 2010, by and between Palm Beach County, a Political Subdivision of the State of Florida, by and through its Board of Commissioners, hereinafter referred to as the COUNTY, and Florida Atlantic University Board of Trustees, a state university authorized to do business in the State of Florida, hereinafter referred to as the CONSULTANT, whose Federal Employer Identification Number is 65-0385507.

WITNESSETH:

WHEREAS, the parties desire to amend the Contract for Consulting/Professional Services dated May 19, 2009 (R2009-0860) and amended on February 1, 2010, to extend the termination date of the Contract from September 30, 2010 to June 30, 2011.

NOW, THEREFORE, in consideration of the mutual promises contained herein, the parties agree as follows:

1. Article 2 of the Contract is hereby amended by replacing the Contract completion date of September 30, 2010 with June 30, 2011.
2. The completion dates referenced in Exhibit A – Scope of Work – are changed to: Tasks 1 and 2: December 1, 2010; Task 3: October 30, 2010; Task 4: November 15, 2010; and Task 5: May 31, 2011.
3. The following is added to the Contract as Article 29:

ARTICLE 29 – INSPECTOR GENERAL:

Palm Beach County has established the Office of the Inspector General in Ordinance 2009-049, as may be amended, which is authorized and empowered to review past, present and proposed County contracts, transactions, accounts and records. The Inspector General has the power to subpoena witnesses, administer oaths and require the production of records, and audit, investigate, monitor, and inspect the activities of the CONSULTANT, its officers, agents, employees, and lobbyists in order to ensure compliance with contract requirements and detect corruption and fraud.

Failure to cooperate with the Inspector General or interference or impeding any investigation shall be in violation of Ordinance 2009-049, and punished pursuant to Section 125.69, Florida Statutes, in the same manner as a second degree misdemeanor.

4. Except as expressly provided herein, all terms and conditions of the Contract remain in full force and effect.

The remainder of this page is intentionally left blank.

IN WITNESS WHEREOF, the Palm Beach County Director of the Department of Environmental Resources Management has made and executed this Amendment on behalf of the COUNTY and CONSULTANT has hereunto set its hand the day and year above written.

PALM BEACH COUNTY, FLORIDA:

APPROVED AS TO FORM AND LEGAL SUFFICIENCY

By: *Richard E. Walesky*
Richard E. Walesky, Director
Department of Environmental Resources Management

By: *[Signature]*
Assistant County Attorney

WITNESS:

**CONSULTANT:
FLORIDA ATLANTIC UNIVERSITY**

Susan Iacone
Signature

Nancy Thoman
Signature

SUSAN IACONE
Name (Type or Print)

Nancy S Thoman
Assistant Director
Sponsored Programs
Florida Atlantic University
Name (Type or Print)

[Signature]
Signature

9/20/10
Title

CHRISTOPHER S. BENNETT
Name (Type or Print)

AMENDMENT NUMBER 3 TO THE CONTRACT FOR CONSULTING/PROFESSIONAL SERVICES

THIS AMENDMENT NUMBER 3 TO THE CONTRACT is made as of this 28th day of JUNE, 2011, between Palm Beach County, a Political Subdivision of the State of Florida, by and through its Board of Commissioners, hereinafter referred to as the COUNTY, and Florida Atlantic University Board of Trustees, a state university authorized to do business in the State of Florida, hereinafter referred to as the CONSULTANT, whose Federal Employer Identification Number is 65-0385507.

WITNESSETH:

WHEREAS, the parties desire to amend the Contract for Consulting/Professional Services dated May 19, 2009 (R2009-0860) and amended on February 1, 2010, and September 21, 2010, to extend the termination date of the Contract from June 30, 2011 to November 30, 2011.

NOW, THEREFORE, in consideration of the mutual promises contained herein, the parties agree as follows:

1. Article 2 of the Contract is hereby amended by replacing the Contract completion date of June 30, 2011 with November 30, 2011.
2. The Scope of Work attached to the Contract as Exhibit "A" is replaced with the Scope of Work attached hereto as Exhibit "A-3".
3. Except as expressly provided herein, all terms and conditions of the Contract remain in full force and effect.

IN WITNESS WHEREOF, the Palm Beach County Director of the Department of Environmental Resources Management has made and executed this Amendment on behalf of the COUNTY and CONSULTANT has hereunto set its hand the day and year above written.

PALM BEACH COUNTY, FLORIDA:

By: Richard E. Walesky
Richard E. Walesky, Director
Department of Environmental
Resources Management

APPROVED AS TO FORM AND LEGAL SUFFICIENCY

By: James C. [Signature]
Assistant County Attorney

WITNESS:

[Signature]
Signature
CHRISTOPHER S. BENNETT
Name (Type or Print)

**CONSULTANT:
FLORIDA ATLANTIC UNIVERSITY**

[Signature]
Signature
JoAnn Moretti
Director
Sponsored Programs
Florida Atlantic University
Name (Type or Print) 6-28-11

Signature

Name (Type or Print)

Title

**EXHIBIT A-3
SCOPE OF WORK (SOW)**

**NEARSHORE REEF ANALYSES AND QUANTIFICATION
PALM BEACH COUNTY**

1.0 BACKGROUND

The nearshore reefs adjacent to the Palm Beach County beaches are a unique marine habitat composed of coquina rock that is repeatedly exposed and recovered by shifting sands. This process is naturally affected by daily and seasonal changes in wave and wind regimes. Historically, the creation of the inlets has affected the degree of exposure of the nearshore reefs, and now this natural process is also periodically affected by beach nourishment projects, as well as inlet and Intracoastal Waterway dredging and spoil disposal.

The ecological value of the nearshore reefs is recognized; however, this importance may vary seasonally with fluctuations in the quantity and diversity of biota accessing or growing on the reefs, the areal extent of hardbottom exposure, the duration of exposure, the degree of relief and rugosity, and proximity to an inlet. The reefs also have a physical importance because they form a semi-permanent bar offshore which acts (in conjunction with shifting sand bars) to retard the rate of beach erosion and reduce the intensity of wave action on the beaches. Monitoring the extent of nearshore reef hardbottom exposure is one measure of the value of this system to Palm Beach County. This measure also helps guide management decisions affecting nearshore reefs and designs of future beach projects.

2.0 OBJECTIVES

In order to fulfill the objectives required by this SOW, the CONSULTANT, Dr. Charles Roberts, shall conduct research to:

- a) Develop a standardized automated or partially automated method with satisfactory Quality Assurance/Quality Control (QA/QC) procedures for digitizing nearshore resources and document methodologies;
- b) Compare results of automated method with hand-digitized reef maps showing an accuracy of 90% or greater;
- c) Digitize backlogged countywide aerials and summarize by resource types; and
- d) Summarize and compare trends in reef resources among the years of aerial data.

3.0 POINT OF CONTACT

All communication from the CONSULTANT to the COUNTY associated with this SOW shall be through Palm Beach County Environmental Resources Management Department (ERM) **Project Manager, Dr. Janet Phipps telephone: (561) 233-2513, Email: jphipps@pbcgov.org**. In the event Dr. Phipps is unavailable, Carman Vare (561-233- 2444) will act as an alternate contact.

All communication between the COUNTY and the CONSULTANT shall be done through the Project Manager unless directed otherwise by the Project Manager or in the Contract for Consulting/Professional Services. The role of the project manager is to ensure that communication between COUNTY and the CONSULTANT is frequent, consistent, and documented. This includes gathering and disseminating documentation and deliverables, schedule review, and invoice review and approval.

The COUNTY reserves the right to authorize or decline to authorize each Task in this SOW. This decision will be at the sole discretion of the COUNTY and will be communicated in writing to the CONSULTANT. CONSULTANT shall not be paid for completion of any Task unless authorized by the COUNTY and shall not be paid for Tasks undertaken but not completed or not properly completed.

4.0 SCOPE OF WORK

This SOW is for conducting research to develop faster, cost-effective, and accurate, method for digitizing nearshore aerials; for the digitization of nearshore and beach resources from the existing and future annual countywide coastal aerials; and for the analysis, quantification, and comparisons of the resultant data. Coastal aerial data to be digitized include years **2005 through 2008 and 2009** when it becomes available. Data analyses shall include the above-mentioned years **plus years 1993, 2000, 2001, 2003, and 2004**; these years are digitized, and the data will be provided by the COUNTY. All tasks associated with this SOW shall be conducted by the CONSULTANT in accordance with established techniques outlined within this SOW. Work will be authorized by Task and will depend on satisfactory results from each previous Task.

5.0 WORK BREAKDOWN STRUCTURE

TASK 1. Develop an automated (or partially automated) method to more cost effectively digitize areal extents of reef and beach resources.

The intent in developing this automated method is to generate maps in a more cost effective method than hand digitizing, but also to expedite mapping to enable groundtruthing future year's aerials. Resources will be mapped by category type as shown in Table 1.

Table 1. Reef and Beach Category Types.

CATEGORY TYPE	DESCRIPTION OF CATEGORY
BASIC:	
ARTIFICIAL_REEF ✓ ✓	Manmade structures placed in the water as "reefs"
NEARSHORE_REEF ✓ ✓	Exposed hardbottom (reef) in waters less than 18 ft. depth
OFFSHORE_REEF ✓ ✓	Exposed hardbottom (reef) in waters greater than 18 ft.
NS_REEF_ROCK	Recently Exposed hardbottom (reef) minimal to no growth
NS_REEF_ALGAE	Exposed hardbottom (reef) with benthic growth evident
EMERGENT_ROCK ✓ ✓	Exposed hardbottom above the wrack line
BOULDER_REVETMENT ✓ ✓	Shore protection structure made up of limerock bounders
RUBBLE ✓ ✓	Scattered rock in a specific area
BORROW_AREA ✓ BREAKWATER.	Depressional areas where sand has been removed by dredging
OPTIONAL:	
<i>DUNE_VEGETATION</i> ✓	<i>Vegetation within the dune system</i>
<i>SEAWALL</i>	<i>Vertical wall fronting a building or road</i>
<i>WRACK_LINE</i>	<i>Debris (seaweeds, etc.) deposited above the water line</i>
<i>GROIN</i>	<i>Rock structure oriented shore perpendicular</i>
<i>PIER</i> ✓	<i>Linear structure extending out over the water</i>
<i>PIPE/CABLE</i> ✓	<i>Submerged pipe extending into nearshore waters</i>
UNKNOWN ✓	Significant underwater shading not identified by above are and not fish or alga

The Optional Category Types *in italics* are addressed in Task 5.

The procedures for researching and developing and testing the automated methodology shall be as follows:

1. **Classification:** Computer classification shall consist of subsetting the mosaiced coastal imagery and applying an unsupervised classification using either Leica Erdas Imagine or Erdas Image Analyst in Arc-Info. The resulting classification will be density sliced to identify classes. The classified image will be imported into Adobe Photoshop where remaining reef structure not picked up in the unsupervised classification, such as rock, will be added to the reef categories using the magic wand tool.

2. QA/QC of Classified Image: A quality control procedure may be applied here to insure that 90% to 95% of the features or better are appropriately classified. This will consist of a full accuracy assessment as described in Task 2 to a simple overlaying of the polygons on the imagery and on the 2003-2004 reefs to look for any discrepancies that need correction.
3. Recoding to Table 1 classes: Once the many classes are identified as belonging to the category types defined above, a recoding will be undertaken to place all classes that represent similar category types in the same category.
4. Raster to Vector Conversion: A raster to vector conversion will be undertaken. The classes that are not being utilized in this study will then be removed (e.g., sandy bottom).
5. QA/QC of final coverage: A QC procedure will be applied to the vector coverages of the polygons, emphasizing labeling errors by the CONSULTANT P.I. The goal will be to identify any mistakes introduced in the stages after the initial classification. The method will be to convert the polygon coverage back to a raster coverage and then subtract one image from another. Since each raster consists of a class number, the resulting file should be composed entirely of zeros. (Any non-zeros will represent a change from the original classification, i.e., a mistake in editing classes, and this represents a 100% sampling of the vector coverage.) All mistakes shall be identified and corrected.
6. Merging of Subsetted Vector coverages: The initial classification involves subsetting pieces of the mosaiced aerial photograph shapefile. After the classification and raster to vector conversion and the QA/QC of the final vector coverage, the individual layers will be merged into a single file. QA/QC will be performed along the boundary of the merged subset vector layer; every polygon will be checked for shape and classification accuracy.
7. Documentation of Task 1 procedures:
 - a. A training manual will be developed showing step by step procedures for training in this methodology.
 - b. Work flow sheets that show basic information on every step of the project will be compiled.

TASK 2. Compare results of the automated method with previously hand-digitized method.

Imagery and geodatabases from the hand-digitized years 2003 and 2004 for 3 shoreline project locations (Juno, Singer Island, and South Palm Beach) will be provided by the COUNTY for CONSULTANT to conduct research to compare with the automated results to ensure an accuracy of 90% to 95% or greater. If accuracy falls below 95%, CONSULTANT will notify the COUNTY, and a determination will be made if additional tasks need to be added.

The following research comparison analysis will be conducted to validate the automated method:

- A. Conduct accuracy assessments on the results of the automated reef mapping by comparisons of 204 stratified random sample points taken from the new machine-classified geodatabase and compare to (1) the original photograph from which the reef geodatabase was mapped, and (2) to the hand-digitized geodatabase previously created by the COUNTY. Perform an analysis of the structure of the errors including errors of omission and commission, producers and users accuracy for both the hand-digitized geodatabase and the machine-classified geodatabase. Each error will be analyzed to determine the cause of the error. This will be done twice, once for 2003 imagery and reef geodatabase and once for 2004 imagery and reef geodatabase.

- B. Using the machine classified geodatabase and the hand-digitized geodatabase, perform an analysis of differences between the two databases, with a report that examines the area and percent area difference in machine-classification versus hand-digitizing for 2003 and 2004 for each category of information and produce a map that shows where areas are the same or where they are different between the two classification methods for both the 2003 and 2004 geodatabases.

Documentation of Task 2 procedures: A research comparison report shall be developed that contains the steps, flow sheets, maps, and results of the comparisons and accuracy assessments completed in Task 2. It shall also contain the structure of errors and explanations on how errors were corrected for future mapping. **Approval of this comparison report by the COUNTY shall occur prior to commencing Task 3.**

TASK 3. Digitize countywide aerials and prepare areal summaries (square feet and/or acreages) for each basic reef resource category type.

Digitizing the years 2005, 2006, 2007, and 2008 will focus on the basic (*non-italicized*) Category Types in Table 1. The priority order for the years will be to start with the most recent year and work through to the oldest. The aerials for 2009 shall also be digitized when they become available. All data shall be maintained in a geodatabase and be segmented by R monument intervals for each year. The COUNTY will provide the CONSULTANT with an electronic file of the R monument intervals.

QA/QC procedures will be instituted by and overseen by the CONSULTANT P.I. This will consist of random quality checks of the work of each student at each step of the operation during the initial training period, which will end when the student has successfully mapped two photos and merged the polygons together accurately. Digital Work Flow Forms will be filled out as each step is completed so that the work flow is documented, and problem areas can easily be identified. Each graduate student will produce a product and a complete accuracy assessment will be made of that product. When the students achieve an accuracy level of 90% or better, they will then work independently with random quality checks of each step of each completed product, with emphasis on the finished, classified raster maps and the final polygon coverages.

TASK 4. Research to summarize and compare trends in the reef Category Types over time.

The purpose of this Task is to look at changes in the resource types by time and by location, as well as at specific locations along the coast under differing influences. Hence, comparisons of changes by inlet interval and by project are important, especially when compared to the 1993 data. The first set of comparisons to be completed will be for the priority interval that is the Jupiter Inlet to Lake Worth Inlet interval that also contains the Jupiter/Carlin, Juno, and Singer Island beach nourishment project intervals. This set of comparisons will establish the methodology for the rest of the comparisons.

The reef category types to be compared are the nearshore and offshore reefs. The units for comparison will be countywide; by inlet intervals; and by beach nourishment project intervals; all compared among the years of data.

For the purposes of comparisons, the inlet intervals are defined as: County line to Jupiter Inlet, Jupiter Inlet to Lake Worth Inlet (priority), Lake Worth Inlet to South Lake Worth Inlet, South Lake Worth Inlet to Boca Raton Inlet, and Boca Raton Inlet to south county line. Beach nourishment project intervals are defined as the areas within the following DEP R-Monument numbers: **Jupiter/Carlin: R-12½-19; Juno: R-26-38; Singer Island: R-60-70; South Palm Beach: R-135-143; South Lake Worth Inlet Management: R-143-153; and Ocean Ridge: R-153-164.**

The geodatabases for the years 1993, 2000, 2001, 2003, 2004, that were previously hand-digitized will be provided by the COUNTY. The CONSULTANT will subdivide each of these older

offshore
1993-05
2000-02

geodatabases into 5 inlet intervals, and 6 beach nourishment intervals as approved by the COUNTY.

A post-classification change detection analysis will be performed on each time pair, i.e. 1993-2000, 2000-2001, etc. for the priority interval/projects to the final hand-digitized maps of 2004. Then a second series of analyses, including the machine-classified year pairs will occur. Lastly, a comparison of the hand-digitized 2004 will be compared to the machine-classified 2005 will be made. This analysis will include a geodatabase of changes between the time periods, and a report that will summarize the type of change and area of change between each pair of categories. (reef to sand, sand to reef, etc.). In addition a new category will be created: persistent reef, which will be defined as reef present at all times.

The rest of the comparisons of specific date-pairs for specific location intervals will be completed according to the following table:

Years/ Intervals**	1993- 2000	2000- 2001	2001- 2003	2003- 2004	2004- 2005	2005- 2006	2006- 2007	2007- 2008	2008- 2009	1993- 2004	1993- 2009	2004- 2006	2004- 2009
Co - Jup	X				X	X				X	X	X	X
Jup - LWI	X	X	X	X	X	X	X	X	X	X	X	X	X
LWI - SLWI	X		X		X	X				X	X	X	X
SLWI-Boca	X		X	X	X	X		X		X	X	X	X
Boca - Co	X		X		X	X				X	X	X	X
J/C	X	X	X	X	X	X	X	X	X				
Juno	X	X	X	X	X	X	X	X	X				
SI	X	X	X	X	X	X	X	X	X				
SPB	X												
SLWIM	X					X	X	X	X				
OR	X					X	X	X	X				
TOTAL:	11	4	7	5	8	10	6	7	6	5	5	5	5

A total of 84 date comparisons.

**Co-Jup = County Line to Jupiter Inlet; Jup - LWI = Jupiter Inlet to Lake Worth Inlet; LWI - SLWI = Lake Worth Inlet to South Lake Worth Inlet; SLWI - Boca = South Lake Worth Inlet to Boca Raton Inlet; Boca - Co = Boca Raton Inlet to south County Line; Beach Prjoects: J/C = Jupiter/Carlin; Juno = Juno; SI = Singer Island; SPB = South Palm Beach; SLWIM = South Lake Worth Inlet Management; and OR = Ocean Ridge.

TASK 5. This research will digitize countywide aerials and prepare areal summaries (linear distance, square feet and/or acreages) for the Optional reef resource category types.

Digitizing the years 2005, 2006, 2007, and 2008 will focus on the *italicized* Category Types in Table 1 (DUNE_VEGETATION, SEAWALL, WRACK_LINE, GROIN, PIER, PIPE/CABLE). The priority order for the years will be to start with the most recent year and work through to the oldest. The aerials for 2009 shall also be digitized when they become available. All data shall be maintained in the geodatabases for each year.

QA/QC procedures will be undertaken by the CONSULTANT P.I. This will consist of random quality checks of the work of each student at each step of the operation during the initial training period. Digital Work Flow Forms will be filled out as each step is completed so that the work flow is documented, and problem areas can easily be identified. Each feature digitized by these students will be checked by the CONSULTANT P.I. or by the senior graduate student. The procedure will represent a 100% sampling of digitized features.

The trend analyses described in Task 4 will not be performed for the Optional Category Types digitized in this Task.

6.0 DELIVERABLES

TASK 1: An electronic copy of the draft training manual shall be submitted to the COUNTY for review and comments upon completion of Task 1 or no later than December 1, 2010. This training manual shall outline and explain the developed methods and include QA/QC procedures. In addition, a work flow sheet showing basic information on every step of the project shall be included. The COUNTY shall provide comments to CONSULTANT, and the Final training manual shall continue to be expanded upon during completion of the subsequent tasks. One hard copy and one electronic copy of the final training manual shall be submitted with the Task 4 (and 5) Final Report. ✓

done
TASK 2: The comparison report shall be submitted to the COUNTY for review in hard and electronic formats as soon as possible but no later than December 1, 2010. The report shall include a map that shows where areas are the same or where they are different between the two classification methods for both the 2003 and 2004 geodatabases and an analyses of the differences (the structure of errors) including errors of omission and commission, producers and users accuracy for both the hand-digitized geodatabase and the machine-classified geodatabase.

TASK 3: The completed data and maps for all years for Tasks 3 shall be submitted to the COUNTY in electronic format for review by August 31, 2011. The coordinate system for the geodatabase shall be State Plane NAD 1983, Harn, Florida East Coast, FIPs 0901 measured in feet. The summary tables of areal extents for each category type shall be broken down by Category Type and year and by R monument interval. Sixty (60) days after receipt of the COUNTY's approval, CONSULTANT shall proceed with development and submittal of the final geodatabases and tables. A metadata worksheet in the form provided by the COUNTY shall be provided with each geodatabase. Evidence of quality control performed and level of accuracy shall be provided. *inlet*

TASKS 4: A draft of the Final Report including maps, graphs, and tables to show comparisons and evaluations of changes and trends over time and beach intervals shall be submitted to the COUNTY for review and comment by September 30, 2011, and the COUNTY shall provide comments to CONSULTANT. The CONSULTANT shall have sixty (60) days to incorporate the comments and submit two (2) hard copies and one (1) electronic copy of the Final Report. In addition, the final training manual with work flow sheets, including all updates from the various accuracy assessments and analyses of the structure of errors, shall also be submitted. The geodatabase shall be provided in electronic format subdivided by R Monuments as well as not subdivided.

TASK 5: The completed data and maps for all years for Tasks 5 shall be submitted to the COUNTY in electronic format for review by November 1, 2011. The coordinate system for the geodatabase shall be State Plane NAD 1983, Harn, Florida East Coast, FIPs 0901 measured in feet. The summary tables of linear/areal extents for each category type shall be broken down by Category Type and year and by ~~R monument interval~~. Sixty (60) days after receipt of the COUNTY's approval, CONSULTANT shall proceed with development and submittal of the final geodatabases and tables. A metadata worksheet in the form provided by the COUNTY shall be provided with each geodatabase. *inlet*

7.0 REPORTING

All data shall be maintained in a single geodatabase and reports shall be submitted in Microsoft Word. The CONSULTANT shall submit monthly reports by the 5th day of each month to provide a summary of work performed the previous month.

8.0 SUMMARY OF DELIVERABLE AND PAYMENT SCHEDULES

TASK DELIVERABLE	COST	DRAFTS DUE
Task 1 and 2	\$1,200	December 1, 2010 ✓
Task 3	\$25,000	August 31, 2011
Task 4	\$24,000	September 30, 2011
Task 5	\$8,000	November 1, 2011

9.0 PAYMENT

Invoices may be submitted for each Task when completed and approved. The total amount for which the CONSULTANT shall be compensated shall not exceed a total contract amount of fifty-eight thousand two dollars (\$58,200).

**EXHIBIT A-4
SCOPE OF WORK (SOW)**

**NEARSHORE REEF ANALYSES AND QUANTIFICATION
PALM BEACH COUNTY**

1.0 BACKGROUND

The nearshore reefs adjacent to the Palm Beach County beaches are a unique marine habitat composed of coquina rock that is repeatedly exposed and recovered by shifting sands. This process is naturally affected by daily and seasonal changes in wave and wind regimes. Historically, the creation of the inlets has affected the degree of exposure of the nearshore reefs, and now this natural process is also periodically affected by beach nourishment projects, as well as inlet and Intracoastal Waterway dredging and spoil disposal.

The ecological value of the nearshore reefs is recognized; however, this importance may vary seasonally with fluctuations in the quantity and diversity of biota accessing or growing on the reefs, the areal extent of hardbottom exposure, the duration of exposure, the degree of relief and rugosity, and proximity to an inlet. The reefs also have a physical importance because they form a semi-permanent bar offshore which acts (in conjunction with shifting sand bars) to retard the rate of beach erosion and reduce the intensity of wave action on the beaches. Monitoring the extent of nearshore reef hardbottom exposure is one measure of the value of this system to Palm Beach County. This measure also helps guide management decisions affecting nearshore reefs and designs of future beach projects.

2.0 OBJECTIVES

In order to fulfill the objectives required by this SOW, the CONSULTANT, Dr. Charles Roberts, shall conduct research to:

- a) Develop a standardized automated or partially automated method with satisfactory Quality Assurance/Quality Control (QA/QC) procedures for digitizing nearshore resources and document methodologies;
- b) Compare results of automated method with hand-digitized reef maps showing an accuracy of 90% or greater;
- c) Digitize backlogged countywide aerials and summarize by resource types; and
- d) Summarize and compare trends in reef resources among the years of aerial data.

3.0 POINT OF CONTACT

All communication from the CONSULTANT to the COUNTY associated with this SOW shall be through Palm Beach County Environmental Resources Management Department (ERM) **Project Manager, Dr. Janet Phipps telephone: (561) 233-2513, Email: jphipps@pbcgov.org** . In the event Dr. Phipps is unavailable, Carman Vare (561-233- 2444) will act as an alternate contact.

All communication between the COUNTY and the CONSULTANT shall be done through the Project Manager unless directed otherwise by the Project Manager or in the Contract for Consulting/Professional Services. The role of the project manager is to ensure that communication between COUNTY and the CONSULTANT is frequent, consistent, and documented. This includes gathering and disseminating documentation and deliverables, schedule review, and invoice review and approval.

The COUNTY reserves the right to authorize or decline to authorize each Task in this SOW. This decision will be at the sole discretion of the COUNTY and will be communicated in writing to the CONSULTANT. CONSULTANT shall not be paid for completion of any Task unless authorized by the COUNTY and shall not be paid for Tasks undertaken but not completed or not properly completed.

4.0 SCOPE OF WORK

This SOW is for conducting research to develop faster, cost-effective, and accurate, method for digitizing nearshore aerials; for the digitization of nearshore and beach resources from the existing and future annual countywide coastal aerials; and for the analysis, quantification, and comparisons of the resultant data. Coastal aerial data to be digitized include years **2005 through 2009**. Data analyses shall include the above-mentioned years **plus years 1993, 2000, 2001, 2003, and 2004**; these years are digitized, and the data will be provided by the COUNTY. All tasks associated with this SOW shall be conducted by the CONSULTANT in accordance with established techniques outlined within this SOW. Work will be authorized by Task and will depend on satisfactory results from each previous Task.

5.0 WORK BREAKDOWN STRUCTURE

TASK 1. Develop an automated (or partially automated) method to more cost effectively digitize areal extents of reef and beach resources.

The intent in developing this automated method is to generate maps in a more cost effective method than hand digitizing, but also to expedite mapping to enable groundtruthing future year's aerials. Resources will be mapped by category type as shown in Table 1.

Table 1. Reef and Beach Category Types.

CATEGORY TYPE	DESCRIPTION OF CATEGORY
BASIC:	
ARTIFICIAL_REEF	Manmade structures placed in the water as "reefs"
NEARSHORE_REEF	Exposed hardbottom (reef) in waters less than 18 ft. depth
OFFSHORE_REEF	Exposed hardbottom (reef) in waters greater than 18 ft.
EMERGENT_ROCK	Exposed hardbottom above the wrack line
BOULDER_REVETMENT	Shore protection structure made up of limerock bounders
RUBBLE	Scattered rock in a specific area
OPTIONAL:	
DUNE_VEGETATION	Vegetation within the dune system
SEAWALL	Vertical wall fronting a building or road
WRACK_LINE	Debris (seaweeds, etc.) deposited above the water line
GROIN	Rock structure oriented shore perpendicular
PIER	Linear structure extending out over the water
PIPE/CABLE	Submerged pipe extending into nearshore waters
UNKNOWN	Significant underwater shading not identified by above and are not fish or alga

The Optional Category Types are addressed in Task 5.

The procedures for researching and developing and testing the automated methodology shall be as follows:

1. **Classification:** Computer classification shall consist of subsetting the mosaiced coastal imagery and applying an unsupervised classification using either Leica Erdas Imagine or Erdas Image Analyst in Arc-Info. The resulting classification will be density sliced to identify classes. The classified image will be imported into Adobe Photoshop where remaining reef structure not picked up in the unsupervised classification, such as rock, will be added to the reef categories using the magic wand tool.
2. **QA/QC of Classified Image:** A quality control procedure may be applied here to insure that 90% to 95% of the features or better are appropriately classified. This will consist of a full accuracy assessment as described in Task 2 to a simple overlaying of the polygons

on the imagery and on the 2003-2004 reefs to look for any discrepancies that need correction.

3. Recoding to Table 1 classes: Once the many classes are identified as belonging to the category types defined above, a recoding will be undertaken to place all classes that represent similar category types in the same category.
4. Raster to Vector Conversion: A raster to vector conversion will be undertaken. The classes that are not being utilized in this study will then be removed (e.g., sandy bottom).
5. QA/QC of final coverage: A QC procedure will be applied to the vector coverages of the polygons, emphasizing labeling errors by the CONSULTANT P.I. The goal will be to identify any mistakes introduced in the stages after the initial classification. The method will be to convert the polygon coverage back to a raster coverage and then subtract one image from another. Since each raster consists of a class number, the resulting file should be composed entirely of zeros. (Any non-zeros will represent a change from the original classification, i.e., a mistake in editing classes, and this represents a 100% sampling of the vector coverage.) All mistakes shall be identified and corrected.
6. Merging of Subsetted Vector coverages: The initial classification involves subsetting pieces of the mosaiced aerial photograph shapefile. After the classification and raster to vector conversion and the QA/QC of the final vector coverage, the individual layers will be merged into a single file. QA/QC will be performed along the boundary of the merged subset vector layer; every polygon will be checked for shape and classification accuracy.
7. Documentation of Task 1 procedures:
 - a. A training manual will be developed showing step by step procedures for training in this methodology.
 - b. Work flow sheets that show basic information on every step of the project will be compiled.

TASK 2. Compare results of the automated method with previously hand-digitized method.

Imagery and geodatabases from the hand-digitized years 2003 and 2004 for 3 shoreline project locations (Juno, Singer Island, and South Palm Beach) will be provided by the COUNTY for CONSULTANT to conduct research to compare with the automated results to ensure an accuracy of 90% to 95% or greater. If accuracy falls below 95%, CONSULTANT will notify the COUNTY, and a determination will be made if additional tasks need to be added.

The following research comparison analysis will be conducted to validate the automated method:

- A. Conduct accuracy assessments on the results of the automated reef mapping by comparisons of 204 stratified random sample points taken from the new machine-classified geodatabase and compare to (1) the original photograph from which the reef geodatabase was mapped, and (2) to the hand-digitized geodatabase previously created by the COUNTY. Perform an analysis of the structure of the errors including errors of omission and commission, producers and users accuracy for both the hand-digitized geodatabase and the machine-classified geodatabase. Each error will be analyzed to determine the cause of the error. This will be done twice, once for 2003 imagery and reef geodatabase and once for 2004 imagery and reef geodatabase.
- B. Using the machine classified geodatabase and the hand-digitized geodatabase, perform an analysis of differences between the two databases, with a report that examines the area and percent area difference in machine-classification versus hand-digitizing for 2003 and 2004 for each category of information and produce a

map that shows where areas are the same or where they are different between the two classification methods for both the 2003 and 2004 geodatabases.

Documentation of Task 2 procedures: A research comparison report shall be developed that contains the steps, flow sheets, maps, and results of the comparisons and accuracy assessments completed in Task 2. It shall also contain the structure of errors and explanations on how errors were corrected for future mapping. **Approval of this comparison report by the COUNTY shall occur prior to commencing Task 3.**

TASK 3. Digitize countywide aerials and prepare areal summaries (square feet and/or acreages) for each basic reef resource category type.

Digitizing the years 2005, 2006, 2007, 2008 and 2009 will focus on the Basic Category Types in Table 1. The priority order for the years will be to start with the most recent year and work through to the oldest. All data shall be maintained in a geodatabase and be segmented by inlet intervals for each year. The COUNTY will provide the CONSULTANT with an electronic file of the R monuments.

QA/QC procedures will be instituted by and overseen by the CONSULTANT P.I. This will consist of random quality checks of the work of each student at each step of the operation during the initial training period, which will end when the student has successfully mapped two photos and merged the polygons together accurately. Digital Work Flow Forms will be filled out as each step is completed so that the work flow is documented, and problem areas can easily be identified. Each graduate student will produce a product and a complete accuracy assessment will be made of that product. When the students achieve an accuracy level of 90% or better, they will then work independently with random quality checks of each step of each completed product, with emphasis on the finished, classified raster maps and the final polygon coverages.

TASK 4. Research to summarize and compare trends in the reef Category Types over time.

The purpose of this Task is to look at changes in the resource types by time and by location, as well as at specific locations along the coast under differing influences. Hence, comparisons of changes by inlet interval and by project are important, especially when compared to the 1993 data. The first set of comparisons to be completed will be for the priority interval that is the Jupiter Inlet to Lake Worth Inlet interval that also contains the Jupiter/Carlin, Juno, and Singer Island beach nourishment project intervals. This set of comparisons will establish the methodology for the rest of the comparisons.

The reef category types to be compared are the nearshore and offshore reefs. The units for comparison will be countywide; by inlet intervals; and by beach nourishment project intervals; all compared among the years of data.

For the purposes of comparisons, the inlet intervals are defined as: County line to Jupiter Inlet, Jupiter Inlet to Lake Worth Inlet (priority), Lake Worth Inlet to South Lake Worth Inlet, South Lake Worth Inlet to Boca Raton Inlet, and Boca Raton Inlet to south county line. Beach nourishment project intervals are defined as the areas within the following DEP R-Monument numbers: **Jupiter/Carlin: R-12½-19; Juno: R-26-38; Singer Island: R-60-70; South Palm Beach: R-135-143; South Lake Worth Inlet Management: R-143-153; and Ocean Ridge: R-153-164.**

The geodatabases for the years 1993, 2000, 2001, 2003, 2004, that were previously hand-digitized will be provided by the COUNTY. The CONSULTANT will subdivide each of these older geodatabases into 5 inlet intervals, and 6 beach nourishment intervals as approved by the COUNTY.

A post-classification change detection analysis will be performed on each time pair, i.e. 1993-2000, 2000-2001, etc. for the priority interval/projects to the final hand-digitized maps of 2004. Then a second series of analyses, including the machine-classified year pairs will occur. Lastly, a comparison of the hand-digitized 2004 will be compared to the machine-classified 2005 will be

made. This analysis will include a geodatabase of changes between the time periods, and a report that will summarize the type of change and area of change between each pair of categories. (reef to sand, sand to reef, etc.). In addition a new category will be created: persistent reef, which will be defined as reef present at all times.

The rest of the comparisons of specific date-pairs for specific location intervals will be completed according to the following table:

Years/ Intervals**	1993- 2000	2000- 2001	2001- 2003	2003- 2004	2004- 2005	2005- 2006	2006- 2007	2007- 2008	2008- 2009	1993- 2004	1993- 2009	2004- 2006	2004- 2009
Co – Jup	X				X	X				X	X	X	X
Jup – LWI	X	X	X	X	X	X	X	X	X	X	X	X	X
LWI – SLWI	X		X		X	X				X	X	X	X
SLWI-Boca	X		X	X	X	X		X		X	X	X	X
Boca – Co	X		X		X	X				X	X	X	X
J/C	X	X	X	X	X	X	X	X	X				
Juno	X	X	X	X	X	X	X	X	X				
SI	X	X	X	X	X	X	X	X	X				
SPB	X												
SLWIM	X					X	X	X	X				
OR	X					X	X	X	X				
TOTAL:	11	4	7	5	8	10	6	7	6	5	5	5	5

A total of 84 date comparisons.

**Co-Jup = County Line to Jupiter Inlet; Jup – LWI = Jupiter Inlet to Lake Worth Inlet; LWI – SLWI = Lake Worth Inlet to South Lake Worth Inlet; SLWI – Boca = South Lake Worth Inlet to Boca Raton Inlet; Boca – Co = Boca Raton Inlet to south County Line; Beach Prjoects: J/C = Jupiter/Carlin; Juno = Juno; SI = Singer Island; SPB = South Palm Beach; SLWIM = South Lake Worth Inlet Management; and OR = Ocean Ridge.

TASK 5. This research will digitize countywide aerials and prepare areal summaries (linear distance, square feet and/or acreages) for the Optional reef resource category types.

Digitizing the years 2005, 2006, 2007, 2008, and 2009 will focus on the Optional Category Types in Table 1 (DUNE_VEGETATION, SEAWALL, WRACK_LINE, GROIN, PIER, PIPE/CABLE). The priority order for the years will be to start with the most recent year and work through to the oldest. All data shall be maintained in the geodatabases for each year.

QA/QC procedures will be undertaken by the CONSULTANT P.I. This will consist of random quality checks of the work of each student at each step of the operation during the initial training period. Digital Work Flow Forms will be filled out as each step is completed so that the work flow is documented, and problem areas can easily be identified. Each feature digitized by these students will be checked by the CONSULTANT P.I. or by the senior graduate student. The procedure will represent a 100% sampling of digitized features.

The trend analyses described in Task 4 will not be performed for the Optional Category Types digitized in this Task.

6.0 DELIVERABLES

TASK 1: An electronic copy of the draft training manual shall be submitted to the COUNTY for review and comments upon completion of Task 1 or no later than December 1, 2010. This training manual shall outline and explain the developed methods and include QA/QC procedures. In addition, a work flow sheet showing basic information on every step of the project shall be included. The COUNTY shall provide comments to CONSULTANT, and the Final training manual shall continue to be expanded upon during completion of the subsequent tasks. One hard copy and one electronic copy of the final training manual shall be submitted with the Task 4 Final Report.

TASK 2: The comparison report shall be submitted to the COUNTY for review in hard and electronic formats as soon as possible but no later than December 1, 2010. The report shall include a map that shows where areas are the same or where they are different between the two classification methods for both the 2003 and 2004 geodatabases and an analyses of the differences (the structure of errors) including errors of omission and commission, producers and users accuracy for both the hand-digitized geodatabase and the machine-classified geodatabase.

TASK 3: The completed data and maps for all years for Tasks 3 shall be submitted to the COUNTY in electronic format for review. The coordinate system for the geodatabase shall be State Plane NAD 1983, Harn, Florida East Coast, FIPs 0901 measured in feet. The summary tables of areal extents for each category type shall be broken down by Category Type and year and by inlet interval. After receipt of the COUNTY's approval, CONSULTANT shall proceed with development and submittal of the final geodatabases and tables by October 15, 2012. A metadata worksheet in the form provided by the COUNTY shall be provided with each geodatabase. Evidence of quality control performed and level of accuracy shall be provided.

TASK 4: A draft of the Final Report including maps, graphs, and tables to show comparisons and evaluations of changes and trends over time and beach intervals shall be submitted to the COUNTY for review and comment by May 31, 2013, and the COUNTY shall provide comments to CONSULTANT. The CONSULTANT shall incorporate the comments and submit two (2) hard copies and one (1) electronic copy of the Final Report within sixty (60) days of receipt of comments by COUNTY. In addition, the final training manual with work flow sheets, including all updates from the various accuracy assessments and analyses of the structure of errors, shall also be submitted. The geodatabase shall be provided in electronic format subdivided by inlets as well as not subdivided.

TASK 5: The completed data and maps for all years for Tasks 5 shall be submitted to the COUNTY in electronic format for review by June 15, 2013. The coordinate system for the geodatabase shall be State Plane NAD 1983, Harn, Florida East Coast, FIPs 0901 measured in feet. The summary tables of linear/areal extents for each category type shall be broken down by Category Type and year and by inlet interval. After receipt of the COUNTY's approval, CONSULTANT shall proceed with development and submittal of the final geodatabases and tables by August 31, 2013. A metadata worksheet in the form provided by the COUNTY shall be provided with each geodatabase.

7.0 REPORTING

All data shall be maintained in a single geodatabase and reports shall be submitted in Microsoft Word. The CONSULTANT shall submit monthly reports by the 5th day of each month to provide a summary of work performed the previous month.

8.0 SUMMARY OF DELIVERABLE AND PAYMENT SCHEDULES

TASK DELIVERABLE	COST	DRAFTS DUE
Task 1 and 2	\$1,200	December 1, 2010
Task 3	\$25,000	October 15, 2012
Task 4	\$24,000	May 31, 2013
Task 5	\$8,000	June 15, 2013

9.0 PAYMENT

Invoices may be submitted for each Task when completed and approved. The total amount for which the CONSULTANT shall be compensated shall not exceed a total contract amount of fifty-eight thousand two dollars (\$58,200).



DEPARTMENT OF FINANCIAL SERVICES
Division of Risk Management

**STATE RISK MANAGEMENT
TRUST FUND**

Policy Number: GL-0201 General Liability
Certificate of Coverage

Name Insured: Florida Atlantic University

General Liability Coverage provided pursuant to Chapter 284, Part II, Section 768.28, Florida Statutes, and any rules promulgated thereunder.

Coverage Limits:

General Liability: \$200,000.00 each person
\$300,000.00 each occurrence

Inception Date: July 1, 2012

Expiration Date: July 1, 2013

A handwritten signature in black ink that reads "Jeff Stewart".

CHIEF FINANCIAL OFFICER



DEPARTMENT OF FINANCIAL SERVICES
Division of Risk Management

STATE RISK MANAGEMENT TRUST FUND
GENERAL LIABILITY
CERTIFICATE OF COVERAGE

In consideration of the provisions and stipulations contained herein or added hereto and for the premium charged, the State Risk Management Trust Fund, hereinafter referred to as the "Fund", certifies that the State department or agency named in this certificate is hereby provided general liability coverage. Coverage shall be effective on the inception date at 12:01 a.m. standard time.

This certificate is comprised of the foregoing provisions and stipulations, together with such other provisions and stipulations as may be added hereto by the Fund in the future:

I. COVERAGES

General Liability Coverage--Bodily and Property Damage

To pay on behalf of the insured all sums which the insured shall become legally obligated to pay as damages for injury or loss of property, personal injury, or death caused by the negligent or wrongful act or omission of any officer, employee, agent or volunteer of the named insured, as such terms may be further defined herein or by administrative rule, while acting within the scope of his office or employment, pursuant to the provisions and limitations of Chapter 284, Part II and Section 768.28, Florida Statutes.

- (2) maintained for use exclusively on premises owned by or rented to the named insured, including the ways immediately adjoining, or
- (3) designed for use principally off public roads, or
- (4) designed or maintained for the sole purpose of affording mobility to equipment of the following types forming an integral part of or permanently attached to such vehicle; power cranes, shovels, loaders, diggers and drills; concrete mixers (other than the mix-in-transit type); graders, scrapers, rollers and other road construction or repair equipment; air-compressors, pumps and generators, including spraying, welding, and building cleaning equipment; and geophysical exploration and well-servicing equipment.

II. DEFENSE, SETTLEMENT, SUPPLEMENTARY PAYMENTS

With respect to such coverage as is afforded by this certificate, the Fund shall:

- (a) defend any proceeding against the insured seeking such benefits and any suit against the insured alleging such injury and seeking damages on account thereof, even if such proceeding or suit is groundless, false, or fraudulent. The Fund will investigate all claims filed against the insured in order to determine the legal liability of the insured and to determine damages sustained by the claimant. The Fund will negotiate, settle, or deny the claim based on these findings and appropriate Florida law.
- (b) pay all premiums on bonds to release attachments and on appeal bonds required in any such defended suit for an amount not in excess of the applicable limit of liability established in this certificate;
- (c) pay all expenses incurred by the Fund, all costs taxed against the insured in any such suit, and all interest accruing after entry of judgment until the Fund has paid, tendered, or deposited in court that part of such judgment as does not exceed the limit of the Fund's liability thereon;
- (d) pay expenses incurred by the insured for such immediate medical relief to others as shall be imperative at the time of the accident.

IV. EXCLUSIONS

This certificate does not apply:

- (a) to bodily injury or property damage arising out of the ownership, maintenance, operation, use, loading or unloading of:
 - (1) any automobile owned or operated by or rented or loaned to any insured, or
 - (2) any other automobile operated by any person in the course of his employment by any insured, but this exclusion does not apply to the parking of an automobile on premises owned by, rented to, or controlled by the named insured or the ways immediately adjoining, if such automobile is not owned by, rented, or loaned to any insured;
- (b) to any action which may be brought against the named insured by anyone who unlawfully participates in riot, unlawful assembly, public demonstration, mob violence, or civil disobedience if the claim arises out of such riot, unlawful assembly, public demonstration, mob violence, or civil disobedience;
- (c) to any obligation for which the insured or the Fund may be held liable under any employer's liability or workers' compensation law;
- (d) to property damage to property owned or occupied by the insured;
- (e) to property damage to premises alienated by the insured arising out of such premises or any part thereof;
- (f) to loss of use of tangible property which has not been physically injured or destroyed, resulting from:
 - (1) a delay in or lack of performance by or on behalf of the named insured of any contract or agreement;
 - (2) the failure of the named insured's products, or work performed by or on behalf of the named insured to meet the level of performance, quality fitness, or durability warranted or represented by the named insured;
- (g) to property damage to the named insured's products arising out of such products or any part of such products;
- (h) to property damage to work performed by or on behalf of the named insured arising out of the work or any portion

III. DEFINITIONS

- (a) Named Insured - The department or agency named herein.
- (b) Insured - State department or agency named herein, their officers, employees, agents or volunteers.
- (c) Volunteer - Any person who of his own free will, provides goods or services to the named insured, with no monetary or material compensation as defined in Chapter 110, Part IV, Florida Statutes.
- (d) Agent - Any person not an employee, acting under the direct control and supervision of a state agency or department, for the benefit of a state agency or department.
- (e) Automobile - A land motor vehicle, trailer, or semi-trailer designed and licensed for use on public roads (including machinery or apparatus attached thereto), but does not include mobile equipment.
- (f) Mobile Equipment - A land vehicle (including machinery or apparatus attached thereto), whether or not self-propelled;
 - (1) not subject to motor vehicle registration, or

- thereof, or out of materials, parts, or equipment furnished in connection therewith;
- (i) eminent domain proceedings or damage to persons or property of others arising therefrom;
 - (j) to punitive damages;
 - (k) to actions of insureds committed in bad faith or with malicious purpose or in a manner exhibiting wanton and willful disregard of human rights, safety, or property;
 - (l) to professional medical liability of the Board of Regents, the physicians, officers, employees, or agents of the Board;
 - (m) to liability related in any way with nuclear energy;
 - (n) to liability assumed by the insured under any contract or agreement;
 - (o) to final judgments in which the insured has been determined to have caused the harm intentionally;
 - (p) to awards for injunctive, declaratory, or prospective relief rendered against an insured by any federal or state court, agency or commission.

V. CONDITIONS

A. Premium

Premium charges shall be assessed in accordance with the provisions of Chapter 284, Part II, Florida Statutes, and any rules promulgated thereunder utilizing a retrospective rating arrangement premium calculation method whereby 80% of the premium is based on losses actually incurred by the insured and 20% is based on the changes in risk exposures (employees, etc.) of an insured. The premium must be paid promptly by an insured agency from its operating budget upon receiving the premium bill or invoice.

B. Audit

The Fund shall be permitted to examine and audit the insured's books and records at any time during the term of this coverage and any extension thereof, and within three years after the final termination of this coverage, as far as they relate to the premium bases or the subject matter of this coverage.

C. Insured's Duties in the Event of Occurrence, Claim or Suit

- (1) **Event of Occurrence**
Written notice containing particulars sufficient to identify the insured, along with reasonably obtainable information with respect to the time, place and circumstances thereof, the names and addresses of the injured and all known witnesses, shall immediately be given by or for the insured to the Fund.
- (2) **Notice of Claim or Suit**
If claim is made by suit brought against the insured, the insured shall immediately forward to the Fund every demand, notice, summons, or other process received by him or his representative. Failure by the insured to advise the Fund of a claim or suit prior to a settlement agreement or the insured otherwise obligating itself, shall void coverage by the Fund, for that claim.
- (3) **Assistance and Cooperation of the Insured**
The insured shall cooperate with the Fund and, upon the Fund's request, assist in making settlements, in the conduct of suits and in enforcing any right of contribution or indemnity against any person or organization who may be liable to the insured because of injury or damage with respect to which coverage is afforded under this certificate, and the insured shall upon request, make available all agency records pertaining to a specific claim, shall attend hearings and trials and assist in securing and

giving evidence and obtaining the attendance of witnesses. The insured shall not, except at his own cost, voluntarily make any payment, assume any obligation or incur any expenses other than for first aid to others at the time of accident.

(4) Action Against the Fund

No action shall lie against the Fund unless, as a condition precedent thereto, the insured shall have been in full compliance with all of the terms of this certificate and the provisions of applicable Florida Statutes.

(5) Severability of Interest

The term "the insured" is used severally and not collectively, but the inclusion herein of more than one insured shall not operate to increase the limits of the Fund's liability.

(6) Limits of Liability

The limit of liability expressed as applicable to "each person" is the limit of the Fund's liability for all damages, including damages for care and loss of services, arising out of personal injury and property damage sustained by one person as a result of any one occurrence; but the total liability of the Fund for all damages sustained by two or more persons as a result of any one occurrence shall not exceed the limit of liability as applicable "each occurrence".

(7) Other Insurance

If there is insurance applicable to any claim, the coverage extended by this certificate shall apply only as excess insurance over any and all other applicable insurance.

(8) Terms of Coverage

This certificate is issued for the purpose of confirming coverage as contemplated by Chapter 284, Part II, Florida Statutes. In the event of any conflict between provisions or coverages in this certificate and the provisions of any Florida Statutes or laws including, but not limited to the aforesaid, said statutes and laws shall control.

(9) Cancellation

Failure of the Fund to receive the amount of premiums billed to the insured agency within the time frames allowed by law may result in cancellation of the certificate of coverage. Payments must be made promptly from the insured's operating budget upon receipt of the premium bill as specified in Section 284.36, Florida Statutes, and lack of prompt payment will result in a request from the Fund to the Comptroller to transfer premiums from any available funds of the delinquent agency under the provisions of Section 284.44(7), Florida Statutes.

D. Self-Insurance Coverage

Coverage for defending and paying claims under this certificate is provided under the authority of Chapter 284, Florida Statutes, wherein the state is authorized to administer a self-insurance program. Provision of this certificate does not constitute the issuance of insurance other than on a self-insurance basis, and payment of any covered claim obligations is contingent upon availability of legislative funding.



DEPARTMENT OF FINANCIAL SERVICES
Division of Risk Management

STATE RISK MANAGEMENT
TRUST FUND

Policy Number: AL-0201

Fleet Automobile Liability
Certificate of Coverage

Name Insured: Florida Atlantic University

Automobile Liability Coverage provided pursuant to Chapter 284, Part II, Section 768.28, Florida Statutes, the Florida Vehicle No-Fault Law, and any rules promulgated thereunder.

Coverage Limits:

General Liability: \$200,000.00 each person
\$300,000.00 each occurrence

Personal Injury: \$10,000.00 each person
\$10,000.00 each occurrence

Inception Date: July 1, 2012

Expiration Date: July 1, 2013

A handwritten signature in black ink that reads "Jeff Stewart".

CHIEF FINANCIAL OFFICER



DEPARTMENT OF FINANCIAL SERVICES
Division of Risk Management

STATE RISK MANAGEMENT TRUST FUND
FLEET AUTOMOBILE LIABILITY
CERTIFICATE OF COVERAGE

In consideration of the provisions and stipulations contained herein or added hereto and for the premium charged, the State Risk Management Trust Fund, hereinafter referred to as the "Fund", certifies that the State department or agency named in this certificate is hereby provided automobile liability coverage. Coverage shall be effective on the inception date at 12:01 a.m. standard time.

This certificate is comprised of the foregoing provisions and stipulations, together with such other provisions and stipulations as may be added hereto by the Fund in the future:

I. LIABILITY COVERAGE

A. Coverage - Bodily Injury and Property Damage

To pay on behalf of the insured all sums which the insured shall become legally obligated to pay (but not to exceed the statutory limits as set forth by Section 768.28, Florida Statutes) for damages because of bodily injury, sickness or disease, including death at any time resulting therefrom (hereafter called bodily injury), sustained or alleged to have been sustained by any person or persons or injury to or destruction of property including loss of use thereof (hereafter called property damage), arising out of the ownership, maintenance, or use including loading or unloading of any owned, hired or non-owned automobile, caused by the negligent or wrongful act or omission of any officer, employee, agent or volunteer of the named insured, as such terms may be further defined herein or by administrative rule, while acting within the scope of his office or employment, pursuant to the provisions and limitations of Chapter 284, Part II and Section 768.28, Florida Statutes.

B. Defense, Settlement, Supplementary Payments

With respect to such coverage as is afforded by this certificate, the Fund shall:

- (a) defend any proceeding against the insured seeking such benefits and any suit against the insured alleging such injury and seeking damages on account thereof, even if such proceeding or suit is groundless, false, or fraudulent. The Fund will investigate all claims filed against the insured in order to determine the legal liability of the insured and to determine damages sustained by the claimant. The Fund will negotiate, settle, or deny the claim based on these findings and appropriate Florida law.
- (b) pay all premiums on bonds to release attachments and on appeal bonds required in any such defended suit for an amount not in excess of the applicable limit of liability of this certificate;
- (c) pay all expenses incurred by the Fund, all costs taxed against the insured in any such suit and all interest accruing after entry of judgment until the Fund has paid, tendered, or deposited in court such part of such judgment as does not exceed the limit of the Fund's liability thereon;
- (d) pay expenses incurred by the insured for such immediate medical relief to others as shall be imperative at the time of the accident.

C. Definitions

The following definitions shall apply to liability coverages established herein:

- (a) Named Insured - The department or agency named herein.
- (b) Insured - The unqualified word "insured" shall include the State department or agency named herein, their officers, employees, agents, or

volunteers acting within the course and scope of employment.

- (c) Volunteer - Any person who of his own free will, provides goods or services to the named insured, with no monetary or material compensation as defined in Chapter 110, Part IV, Florida Statutes.
- (d) Agent - Any person not an employee, acting under the direct control and supervision of a state agency or department, for the benefit of a state agency or department.
- (e) Automobile - A land motor vehicle, motorcycle, trailer, or semi-trailer designed and licensed for use on public roads (including machinery or apparatus attached thereto), but does not include mobile equipment.
- (f) Owned Automobile - An automobile owned by the named insured or leased under contract for six months or more.
- (g) Hired Automobile - An automobile used under contract in behalf of or loaned to the named insured, provided such automobile is not owned by or leased under contract for six months or more, or registered in the name of (1) the named insured, or (2) an executive officer thereof, or (3) an employee or agent of the named insured who is granted an operating allowance for the use of such automobile.
- (h) Non-owned Automobile - Any automobile which is not an owned or hired automobile.
- (i) Trailer - The word trailer includes semi-trailer.
- (j) Mobile Equipment - A land vehicle (including machinery or apparatus attached thereto), whether or not self-propelled; (1) not subject to motor vehicle registration, or (2) maintained for use exclusively on premises owned by or rented to the named insured, including the ways immediately adjoining, or (3) designed for use principally off public roads, or (4) designed or maintained for the sole purpose of affording mobility to equipment of the following types forming an integral part of or permanently attached to such vehicle; power cranes, shovels, loader, diggers and drills; concrete mixers (other than the mix-in-transit type); graders, scrapers, rollers and other road construction or repair equipment; air compressors, pumps and generators, including spraying, welding and building cleaning equipment; and geophysical exploration and well-servicing equipment.

D. Exclusions

This certificate does not apply to:

- (a) any claim or judgment for punitive damages;
- (b) interest for the period prior to judgment;
- (c) that portion of the claim or judgment which is in excess of the statutory limits of liability;
- (d) any judgment entered personally against any insured where the insured was found to have acted in bad faith or with malicious purpose or in a manner exhibiting wanton and willful disregard of human rights, safety, or property;
- (e) liability assumed by the insured under any contract or agreement;
- (f) any obligation for which the named insured or any carrier as his insurer may be held liable under workers'

- compensation, unemployment compensation or disability benefits law, or under any similar law;
- (g) the owner of a hired automobile or any agent or employee of any such owner;
 - (h) to any action which may be brought against the State department or agency named herein by anyone who unlawfully participates in riot, unlawful assembly, public demonstration, mob violence, or civil disobedience if the claim arises out of such riot, unlawful assembly, public demonstration, mob violence, or civil disobedience;
 - (i) damage or destruction to property owned by the insured;
 - (j) liability related in any way with nuclear energy.

E. Conditions

1. Premium

Premium charges shall be assessed in accordance with the provisions of Chapter 284, Part II, Florida Statutes, and any rules promulgated thereunder, utilizing a retrospective rating arrangement premium calculation method whereby 80% of the premium is based on losses actually incurred by the insured and 20% is based on the changes in risk exposures (vehicles, etc.) of an insured. The premium must be paid promptly by an insured agency from its operating budget upon receiving the premium bill or invoice.

2. Insured's duties in the Event of Occurrence, Claim or Suit

- (a) In the event of an occurrence, written notice containing particulars sufficient to identify the insured along with reasonably obtainable information with respect to the time, place and circumstances thereof, and the names and addresses of the injured and all known witnesses, shall immediately be given by or for the insured to the Fund.
- (b) If claim is made or suit is brought against the insured, the insured shall immediately forward to the Fund every demand, notice, summons, or other process received by him or his representative. Failure by the insured to advise the Fund of a claim or suit prior to a settlement or agreement or the insured otherwise obligating itself, shall void coverage by the Fund for that claim.
- (c) The insured shall cooperate with the Fund and, upon the Fund's request, assist in making settlements in the conduct of suits and in enforcing any right of contribution or indemnity against any person or organization who may be liable to the insured because of injury or damage with respect to which coverage is afforded under this contract and the insured shall upon request, make available all agency records pertaining to a specific claim, shall attend hearings and trials and assist in securing and giving evidence and obtaining the attendance of witnesses. The insured shall not, except at his own cost, voluntarily make any payment, assume any obligation, or incur any expenses other than for first aid to others at the time of accident.

3. Limits of Liability

The limits of liability expressed as applicable to "each person" is the limit of the Fund's liability for all damages including damages for care and loss of services, arising out of bodily injury and property damage sustained by one person as a result of any one occurrence; but the total liability of the Fund for all damages sustained by two or more persons as a result of any one occurrence shall not exceed the limit of liability as applicable to "each occurrence".

4. Insurance

If there is insurance applicable to any claim, the coverage extended by this certificate shall not apply, except as excess insurance over any and all other available coverage.

II. PERSONAL INJURY PROTECTION

A. Coverage

The Fund will pay to:

- (a) any insured injured while occupying an owned vehicle, or
- (b) any other person injured while occupying the owned motor vehicle or while a pedestrian through being struck by the owned motor vehicle, in accordance with the Florida Motor Vehicle No-Fault Law, the following benefits:
 - (1) eighty percent (80%) of all reasonable and necessary medical expenses, and
 - (2) sixty percent (60%) of all loss of gross income and loss of earning capacity per individual from inability to work proximately caused by the injury sustained by the injured person, plus all expenses reasonably incurred in obtaining from others ordinary and necessary services in lieu of those that, but for the injury, the injured person would have performed without income for the benefit of his household, and
 - (3) funeral, burial or cremation expenses in an amount not to exceed \$5,000.00 per individual, incurred as a result of bodily injury caused by an accident arising out of the ownership, maintenance or use of an owned motor vehicle.

B. Exclusions

This insurance does not apply:

- (a) to an insured while occupying a motor vehicle of which the named insured is not the owner and which is not an owned motor vehicle under this coverage;
- (b) to any person while operating the owned motor vehicle without the express or implied consent of the authorized person employed by the named insured;
- (c) to any person, if such person's conduct contributed to his bodily injury under any of the following circumstances:
 - (1) causing bodily injury to himself or herself intentionally; or
 - (2) while committing a felony;
- (d) to the extent that benefits are paid or payable under any workers' compensation law or Medicaid program;
- (e) to any pedestrian, other than an insured, not a legal resident of the State of Florida;
- (f) to any person, including an insured, if such person is the owner of a motor vehicle with respect to which security is required under Florida's Motor Vehicle No-Fault Law;
- (g) to any person, including an insured, who is entitled to personal injury protection benefits from the owner of a motor vehicle which is not an owned motor vehicle under this endorsement or from the owner's insured;
- (h) to any person who sustained bodily injury while occupying a motor vehicle located for use as a resident or premises;
- (i) to any person who is incarcerated by the State, a ward of the State, or whose medical needs are otherwise provided for by the State of Florida or other governmental entity.

C. Limits of Liability: Other Insurance

Regardless of the number of persons insured, policies or bonds applicable, vehicles involved, or claims made, the total aggregated limit of personal injury protection benefits available under the Florida Motor Vehicle No-Fault Law from all sources combined, including this coverage, for all loss and expense incurred by or on behalf of any person who sustained bodily injury as the result of any one accident shall be \$10,000.00, provided that payment for funeral, cremation or burial expenses included in the foregoing shall in no event exceed \$2,500.00. Any statutory changes in the amount of these benefits will automatically supersede the amount stated in this Certificate of Coverage.

If benefits have been received under the Florida Motor Vehicle No-Fault Law from any insurer for the same item of loss and expense for which benefits are available under this coverage, the Fund shall not be liable to make duplicate payments to or for the benefit of the injured person.

D. Definitions

The following definitions shall apply to Personal Injury Protection coverages provided herein:

- (a) Bodily Injury - Bodily Injury, sickness or disease, including death at any time resulting therefrom;
- (b) Medical Expenses - Expenses for necessary medical, surgical, x-ray, dental, ambulance, hospital, professional nursing and rehabilitative services recognized and permitted under the law of the State of Florida and for an injured person who relies upon spiritual means through prayer along with healing in accordance with his religious beliefs;
- (c) Named Insured - The department or agency named herein;
- (d) Insured - Includes authorized individuals in the course and scope of their employment for the department or agency named herein;
- (e) Motor Vehicle - Any self-propelled vehicle with four or more wheels which is of a type both designed and required to be licensed for use on the highways of this State and any trailer or semi-trailer designed for use with such vehicle and includes:
 - (1) a "private passenger motor vehicle" which is any motor vehicle which is a sedan, station wagon, jeep-type vehicle not used at any time as a public or delivery conveyance for passengers and, if not used primarily for occupational, professional, or business purposes, a motor vehicle of the pickup, panel, van, camper, or motor home type.
 - (2) a "commercial motor vehicle" which is any motor vehicle which is not a private passenger motor vehicle. The term "motor vehicle", however, does not include a mobile home or any motor vehicle owned by a municipality, a transit or public school transportation authority, or by a political subdivision of the State which is used in mass transit or public school transportation and designed to transport more than five passengers exclusive of the operator of a motor vehicle.
- (f) Occupying - In or upon or entering into or alighting from;
- (g) Owned Motor Vehicles - A motor vehicle of which the named insured is the owner and with respect to which:
 - (1) the bodily injury liability insurance of the policy applies;
 - (2) security is required to be maintained under the Florida Motor Vehicle No-Fault Law.
- (h) Pedestrian - Person while not an occupant of any self-propelled vehicle;
- (i) Owner - A person or organization who holds the legal title to a motor vehicle, including:
 - (1) a debtor having the right to possession, in the event a motor vehicle is the subject of a security agreement, and
 - (2) a lessee having the right to possession, in the event a motor vehicle is the subject of a lease with option to purchase and such agreement is for a period of six months or more, and
 - (3) a lessee having the right to possession, in the event a motor vehicle is the subject of a lease without option to purchase, and such lease agreement is for a period of six months or more, and the lease agreement provides that the lessee shall be responsible for securing the insurance.

E. Policy Period: Territory

The insurance under this section applies only to accidents which occur during the certificate period:

- (a) in the State of Florida, and
- (b) as respect the insured while occupying the insured motor vehicle outside the State of Florida, but within the United States of America, its territories or possessions or Canada.

F. Conditions

- (a) Notice
In the event of an accident, written notice of the loss must be given to the Fund or any of its authorized agents as soon as practicable.

- (b) Proof of Claim; Medical Reports and Examinations; Payment of Claim Withheld.

As soon as practicable, the person making claim shall give to the Fund written proof of claim, under oath if required, which may include full particulars of the nature and extent of the injuries and treatment received and contemplated, and such other information as may assist the Fund in determining the amount due and payable. Such person shall submit to mental and physical examinations at the Fund's expense when and as often as the Fund may reasonable require and a copy of the medical report shall be forwarded to such person if requested. If the person unreasonably refuses to submit to an examination, the Fund will not be liable for subsequent personal injury protection benefits.

III. GENERAL COVERAGE CONDITIONS

A. Audit

The Fund shall be permitted to examine and audit the insured's books and records at any time during the term of this certificate and any extension thereof and within three years after the final termination of this certificate, as far as they relate to the premium bases or the subject matter of the certificate.

B. Action against the Fund

No action shall lie against the Fund unless, as a condition precedent thereto, the insured has fully complied with all of the terms of this certificate and the provisions of Section 768.28, Florida Statutes.

C. Severability of Interests

The term "the insured" is used severally and not collectively, but the inclusion herein of more than one insured shall not operate to increase the limits of the Fund's liability.

D. Two or More Automobiles

The terms of this certificate apply separately to each automobile insured hereunder, but a motor vehicle and a trailer or trailers attached thereto shall be held to be one automobile as respects to limits of liability.

E. Term of Coverage

This certificate is issued for the purpose of confirming coverage as contemplated by Chapter 284, Part II, provisions or coverages in this certificate and the provisions of any Florida Statutes or laws including, but not limited to the aforesaid, the statutes and laws shall control.

F. Cancellation

Failure of the Fund to receive the amount of premiums billed to the insured agency within the time frames allowed by law may result in cancellation of the certificate of coverage. Payments must be made promptly from the insured's operating budget upon receipt of the premium bill as specified in Section 284.36, Florida Statutes, and lack of prompt payment will result in a request from the Fund to the Comptroller to transfer premiums from any available funds of the delinquent agency under the provisions of Section 284.44(7), Florida Statutes.

G. Self-Insurance Coverage

Coverage for defending and paying claims under this certificate is provided under the authority of Chapter 284, Florida Statutes, wherein the state is authorized to administer a self-insurance program. Provision of this certificate does not constitute the issuance of insurance other than on a self-insurance basis, and payment of any covered claim obligations is contingent upon availability of legislative funding.



DEPARTMENT OF FINANCIAL SERVICES
Division of Risk Management

**STATE RISK MANAGEMENT
TRUST FUND**

Policy Number: CA-0201

Court Awarded Attorney Fees
Certificate of Coverage

Name Insured: Florida Atlantic University

Court Awarded Attorney Fees provided pursuant to Chapter 284, Part II, Section 768.28, Florida Statutes, and any rules promulgated thereunder.

Court Awarded Attorney Fees

Liability Unlimited each person
 Unlimited each occurrence

Inception Date: July 1, 2012

Expiration Date: July 1, 2013

CHIEF FINANCIAL OFFICER



DEPARTMENT OF FINANCIAL SERVICES
Division of Risk Management

STATE RISK MANAGEMENT TRUST FUND
COURT AWARDED ATTORNEY FEES
CERTIFICATE OF COVERAGE

In consideration of the provisions and stipulations contained herein or added hereto and for the premium charged, the State Risk Management Trust Fund, hereinafter referred to as the "Fund", certifies that the State department or agency named in this certificate is hereby provided court awarded attorney fees. Coverage shall be effective on the inception date at 12:01 a.m. standard time.

This certificate is comprised of the foregoing provisions and stipulations, together with such other provisions and stipulations as may be added hereto by the Fund in the future:

I. COVERAGE

To pay on behalf of the named insured, court awarded attorney fees and costs as set forth in Chapter 284, Part II, Florida Statutes, in other proceedings against the State, in which the State is not a prevailing party.

II. SETTLEMENT

The Department of Financial Services has the right to participate in the defense of any suit or appeal with respect to the payment of attorney fees.

III. DEFINITIONS

- A. Named Insured:** The department or agency named herein.
- B. Attorney's fees and Costs:** The reasonable and necessary attorney fees and costs incurred for all preparation, motions, hearings, trials, and appeals in a proceeding.
- C. Prevailing Party:** A party prevails when a final judgment or order has been entered in favor of the party, or partially in favor of the party, and such judgment or order has not been reversed on appeal or the time for seeking judicial review of the order has expired.
- D. Other Proceedings against the State:** All action against the State not related to the specific coverage accounts specified in Section 284.30 and 284.31, Florida Statutes.

IV. EXCLUSIONS

This certificate does not apply to:

- (a) any attorney fees awarded by an Administrative Law Judge as a result of an administrative hearing or proceeding under Chapter 120, Florida Statutes
- (b) no award of attorney fees shall be made in any case in which the State is a nominal party
- (c) no attorney fees shall be paid if application for attorney fees has not been made in accordance with s.284.30, Florida Statutes
- (d) no attorney fees shall be paid in those instances where the action is part of a regulatory process and a separate Fund has been established to provide for the payment of court awarded fees and costs to a prevailing party
- (e) no award of attorney fees and costs will be paid due to inverse condemnation or eminent domain actions
- (f) no award of attorney fees and costs relating to 42 USC 1983 Federal Civil Rights actions for injunctive and declaratory relief shall be paid
- (g) no award of attorney fees and costs shall be paid due to actions arising from Employment Discrimination proceedings.
- (h) No award of attorney fees and costs shall be paid if it is determined that the Insured's action that precipitated the legal action was a gross abuse of the Insured's discretion or was done for an improper purpose. "Improper purpose" means participation in a proceeding primarily to harass or to cause unnecessary delay or for frivolous purpose or to

needlessly increase the cost of litigation, licensing, or securing the approval of an activity.

- (i) No award of attorney fees and costs shall be paid if such attorney fees and costs are awarded under Section 57.105, Florida Statutes.

V. CONDITIONS

- A.** A party to a suit in any court, entitled to have attorney fees paid by the State must serve a copy of the pleadings claiming the fees on the Department of Financial Services in accordance with s.284.30, Florida Statutes.
- B.** The Division of Risk Management shall assess the State agencies' premiums in accordance with the provisions as set forth in Chapter 284, Part II, Florida Statutes.
- C. Audit**
The Fund shall be permitted to examine and audit the insured's books and records at any time during the term of this certificate, as far as they relate to the premium bases or the subject matter of the certificate.
- D. Insured's Duties in the Event of Claim**
- (1) **Terms of Coverage**
This certificate is issued for the purpose of confirming coverage as contemplated by Chapter 284, Part II, Florida Statutes. In the event of any conflict between provisions or coverages in this certificate and the provisions of any Florida Statutes or laws including, but not limited to the aforesaid, said statutes and laws shall control.
- (2) **Cancellation**
Failure of the Fund to receive the amount of premiums billed to the insured agency within the time frames allowed by law may result in cancellation of the certificate of coverage. Payments must be made promptly from the insured's operating budget upon receipt of the premium bill as specified in Section 284.36, Florida Statutes, and lack of prompt payment will result in a request from the Fund to the Comptroller to transfer premiums from any available funds of the delinquent agency under the provisions of Section 284.44(7), Florida Statutes.
- (3) **Action against the Fund**
No action shall lie against the Fund unless, as a condition precedent thereto, the insured has fully complied with all of the terms of this certificate and the provisions of Section 768.28, Florida Statutes.
- (4) **a. Assistance and Cooperation of the Insured**
The insured shall cooperate with the Fund and, upon the Fund's request, assist in making settlements, make available all agency records pertaining to a specific claim, and shall attend hearings and trials. The insured shall not, except at his own cost, voluntarily make any payment, covered by this certificate.
- b. Notice of Claim or Suit**
If claim is made by suit brought against the insured, the insured shall immediately forward to the Fund



DEPARTMENT OF FINANCIAL SERVICES
Division of Risk Management

every demand, notice, summons, or other process received by the Insured. Failure by the Insured to advise the Fund of a claim or suit prior to a settlement agreement or the Insured otherwise obligating itself, shall void coverage by the Fund, for that claim.

If actions by the insured prevent or cause prejudice to defenses available to the Division, coverage shall be voided for that claim.

(5) **Limits of Liability**

The Fund's monetary limits of liability for this coverage shall be the same monetary limits as stated in Section 768.28, Florida Statutes.

E. Self-Insurance Coverage

Coverage for defending and paying claims under this certificate is provided under the authority of Chapter 284, Florida Statutes, wherein the state is authorized to administer a self-insurance program. Provision of this certificate does not constitute the issuance of insurance other than on a self-insurance basis, and payment of any covered claim obligations is contingent upon availability of legislative funding.



DEPARTMENT OF FINANCIAL SERVICES
Division of Risk Management

**STATE RISK MANAGEMENT
TRUST FUND**

Policy Number: FC-0201

Federal Civil Rights Liability and
Employment Discrimination
Certificate of Coverage

Name Insured: Florida Atlantic University

Federal Civil Rights Liability Coverage provided pursuant to Chapter 284, Part II,
Section 768.28, Florida Statutes, and any rules promulgated thereunder.

Federal Civil Rights:

Liability: Unlimited each person
Unlimited each occurrence

Inception Date: July 1, 2012

Expiration Date: July 1, 2013

A handwritten signature in black ink that reads "Jeff Stewart".

CHIEF FINANCIAL OFFICER



DEPARTMENT OF FINANCIAL SERVICES
Division of Risk Management

STATE RISK MANAGEMENT TRUST FUND
FEDERAL CIVIL RIGHTS LIABILITY AND EMPLOYMENT DISCRIMINATION COVERAGE
CERTIFICATE OF COVERAGE

In consideration of the provisions and stipulations contained herein or added hereto and for the premium charged, the State Risk management Trust Fund, hereinafter referred to as the "Fund", certifies that the State department or agency named in this certificate is hereby provided federal civil rights liability and employment discrimination coverage. Coverage shall be effective on the inception date at 12:01 a.m. standard time.

This certificate is comprised of the foregoing provisions and stipulations, together with such other provisions and stipulations as may be added hereto by the Fund in the future:

I. COVERAGES

A. Federal Civil Rights Coverage

To pay on behalf of the insured all sums which the insured shall become legally obligated to pay, subject to the stated exclusions, arising from federal civil rights actions filed under 42 USC 1983, and other similar federal statutes. The coverage includes payment of claims and awards for plaintiff attorney fees where so provided by the above federal statutes.

B. Employment Discrimination Coverage

To pay on behalf of the insured all sums which the insured shall become legally obligated to pay, subject to the stated exclusions, arising from employment discrimination actions filed under 42 USC 2000e, Title VII of the 1964 Civil Rights Act, the Rehabilitation Act of 1973 (handicap discrimination), the Age Discrimination in Employment Act of 1967, the Vietnam Era Veteran's Readjustment Act of 1974, and other similar employment discrimination acts and statutes.

II. DEFENSE, SETTLEMENT, SUPPLEMENTARY PAYMENTS

With respect to such coverages as is afforded by this certificate, the Fund shall:

- (a) defend any proceeding against the insured seeking such benefits and any suit against the insured alleging such injury and seeking damages on account thereof, even if such proceeding or suit is groundless, false, or fraudulent. The Fund will investigate all claims filed against the insured in order to determine the legal liability of the insured and to determine damages sustained by the claimant. The Fund will negotiate, settle, or deny the claim based on these findings and appropriate Florida and federal laws.
- (b) defend any suit against an insured filed under the statutes and acts stated in coverages A and B, except the named insured is responsible for defending or directing the defense of injunctive or prospective relief issues;
- (c) pay all premiums on bonds to release attachments and on appeal bonds required in any such defended suit for an amount not in excess of the applicable limit of liability established in this certificate;
- (d) pay all expenses incurred by the Fund, all costs taxed against the insured in any such suit and all interest accruing after entry of judgment until the Fund has paid, tendered, or deposited in court that part of such judgment as does not exceed the limit of the Fund's liability thereon.

III. DEFINITIONS

- (a) Named Insured - The department or agency named herein.
- (b) Insured - State department or agency named herein, their officers, employees, agents or volunteers.

- (c) Volunteer - Any person who of his own free will, provides goods or services to the named insured, with no monetary or material compensation as defined in Chapter 110, Part IV, Florida Statutes.
- (d) Agent - Any person not an employee, acting under the direct control and supervision of a state agency or department, for the benefit of a state agency or department.

IV. EXCLUSIONS

This certificate does not apply:

- (a) to any action which may be brought against the named insured by anyone who unlawfully participates in riot, unlawful assembly, public demonstration, mob violence, or civil disobedience, if the claim arises out of such riot, unlawful assembly, public demonstration, mob violence, or civil disobedience;
- (b) to any obligation for which the insured or the Fund may be held liable under any employer's liability or workers' compensation law;
- (c) eminent domain proceedings or damage to persons or property of others arising therefrom;
- (d) to punitive damages;
- (e) to actions of insureds committed in bad faith or with malicious purpose or in a manner exhibiting wanton and willful disregard of human rights, safety, or property;
- (f) to professional medical liability of the Board of Regents, the physicians, officers, employees, or agents of the Board;
- (g) to liability related in any way with nuclear energy;
- (h) to liability assumed by the insured under any contract or agreement;
- (i) to final judgments in which the insured has been determined to have caused the harm intentionally;
- (j) to awards for injunctive or prospective relief rendered against an insured by any federal or state court, agency or commission except plaintiff's attorney fee awards in such actions are covered by the Fund. The Fund will not pay any costs associated with implementing or monitoring a declaratory, injunctive or prospective relief award.
- (k) to awards to employees or retirees of the named insured for backpay or other benefits, except backpay and other benefits awarded for the period prior to and up to the date of final judgment and paid by the named insured are reimbursable from the Fund to the named insured through journal transfer.

V. CONDITIONS

A. Premium

Premium charges shall be assessed in accordance with the provisions of Chapter 284, Part II, Florida Statutes, and any rules promulgated thereunder, utilizing a retrospective rating arrangement premium calculation method whereby 80% of the premium is based on losses actually incurred

by the insured and 20% is based on the changes in risk exposures (employees, etc.) of an insured. The premium must be paid promptly by an insured agency from its operating budget upon receiving the premium bill or invoice.

B. Audit

The Fund shall be permitted to examine and audit the insured's books and records at any time during the term of this coverage and any extension thereof, and within three years after the final termination of this coverage, as far as they relate to the premium bases or the subject matter of this coverage.

C. Insured's Duties in the Event of Occurrence, Claim or Suit

(1) Event of Occurrence

Written notice containing particulars sufficient to identify the insured, along with reasonably obtainable information with respect to the time, place and circumstances thereof, the names and addresses of the injured and all known witnesses, shall immediately be given by or for the insured to the Fund.

(2) Notice of Claim or Suit

If claim is made by suit brought against the insured, the insured shall immediately forward to the Fund every demand, notice, summons, or other process received by him or his representative. Failure by the insured to advise the Fund of a claim or suit prior to a settlement agreement or the insured otherwise obligating itself, shall void coverage by the Fund for that claim.

(3) Assistance and Cooperation of the Insured

The insured shall cooperate with the Fund and, upon the Fund's request, assist in making settlements, in the conduct of suits and in enforcing any right of contribution or indemnity against any person or organization who may be liable to the insured because of injury or damage with respect to which coverage is afforded under this certificate, and the insured shall upon request, make available all agency records pertaining to a specific claim, shall attend hearings and trials and assist in securing and giving evidence and obtaining the attendance of witnesses. The insured shall not, except at his own cost, voluntarily make any payment, assume any obligation or incur any expenses.

(4) Action Against the Fund

No action shall lie against the Fund unless, as a condition precedent thereto, the insured shall have been in full compliance with all of the terms of this certificate and the provisions of applicable Florida Statutes.

(5) Severability of Interest

The Term "the insured" is used severally and not collectively, but the inclusion herein of more than one insured shall not operate to increase the limits of the Fund's liability.

(6) Insurance

If there is a valid and collectible policy of insurance applicable to any claim, the coverage extended by this certificate shall not apply.

(7) Terms of Coverage

This certificate is issued for the purpose of confirming coverage as contemplated by Chapter 284, Part II, Florida Statutes. In the event of any conflict between provisions or coverages in this certificate and the provisions of any Florida Statute or laws including, but not limited to the aforesaid, said statutes and laws shall control.

(8) Cancellation

Failure of the Fund to receive the amount of premiums billed to the insured agency within the time frames allowed by law may result in cancellation of the certificate of coverage. Payments must be made promptly from the insured's operating budget upon receipt of the premium bill as specified in Section 284.36, Florida Statutes, and lack of prompt payment will result in a request from the Fund to the Comptroller to transfer premiums from any available funds of the delinquent agency under the provisions of Section 284.44(7), Florida Statutes.

D. Self-Insurance Coverage

Coverage for defending and paying claims under this certificate is provided under the authority of Chapter 284, Florida Statutes, wherein the state is authorized to administer a self-insurance program. Provision of this certificate does not constitute the issuance of insurance other than on a self-insurance basis, and payment of any covered claim obligations is contingent upon availability of legislative funding.

DATE PRINTED: 7/1/2012

CERTIFICATE NUMBER:

149601

**STATE OF FLORIDA
FLORIDA PROPERTY INSURANCE TRUST FUND
DIVISION OF RISK MANAGEMENT
DEPARTMENT OF FINANCIAL SERVICES**

EFFECTIVE DATE: 07/01/12

EXPIRATION DATE: 06/30/13

INSURED: DEPARTMENT OF EDUCATION - FAU

INSURANCE COVERAGE IS PROVIDED ONLY FOR THOSE COVERAGES INDICATED ON THE ATTACHED PROPERTY LISTING, AND FOR THE AMOUNTS SHOWN FOR EACH INDIVIDUAL PROPERTY LOCATION.

COVERAGES

BUILDING:	\$867,269,117
CONTENTS:	\$209,442,030
RENTAL:	\$16,284,901
TOTAL INSURED VALUES:	\$1,092,996,048

DESCRIPTION AND PRIMARY LOCATIONS OF PROPERTY COVERED ARE CONTAINED ON THE PROPERTY SCHEDULE WHICH IS ATTACHED AND MADE A PART OF THIS CERTIFICATE.



DEPARTMENT OF FINANCIAL SERVICES
Division of Risk Management

**STATE RISK MANAGEMENT
TRUST FUND**

Policy Number: WC-0201 State Employee Workers' Compensation
and Employer's Liability
Certificate of Coverage

Name Insured: Florida Atlantic University

Coverage Limits:

Coverage A - Compensation coverage is provided to comply with the applicable State Workers' Compensation, Occupational Disease Laws and any rule promulgated thereunder.

Coverage B \$200,000.00 each person
\$300,000.00 each occurrence

Inception Date: July 1, 2012

Expiration Date: July 1, 2013

A handwritten signature in black ink, appearing to read "Jeff Stewart".

CHIEF FINANCIAL OFFICER



DEPARTMENT OF FINANCIAL SERVICES
Division of Risk Management

STATE RISK MANAGEMENT TRUST FUND
STATE EMPLOYEE WORKERS' COMPENSATION AND
EMPLOYER'S LIABILITY
CERTIFICATE OF COVERAGE

In consideration of the provisions and stipulations contained herein or added hereto and for the premium charged, the State Risk Management Trust Fund, hereinafter referred to as the "Fund", certifies that the State department or agency named in this certificate is hereby entitled to workers' compensation coverage as set forth in the Workers' Compensation Laws and to employer's legal liability coverage as established herein. Coverage shall be effective on the inception date at 12:01 a.m., standard time.

This certificate is comprised of the foregoing provisions and stipulations, together with such other provisions and stipulations as may be added hereto by the Fund in the future:

I. Coverages

A. Coverage A - Workers' Compensation

To pay promptly when due all compensation and other benefits required of the insured by the Workers' Compensation Laws.

B. Coverage B - Employer's Liability

To pay on behalf of the insured all sums which the insured shall become liable to pay as damages because of bodily injury by accident or disease, including death, at any time resulting therefrom, which are sustained by an employee of the insured and which arise out of and in the course of his employment with the insured in the United States of America, its territories or possessions, or while temporarily employed outside the United States of America, its territories or possessions.

II. Defense, Settlement, Supplementary Payments

As respects the insurance afforded by the other terms of this certificate, the Fund shall:

- (a) defend any proceeding against the insured seeking such benefits and any suit against the insured alleging such injury and seeking damages on account thereof, even if such proceeding or suit is groundless, false, or fraudulent. The Fund will investigate all claims filed against the insured in order to determine the legal liability of the insured and to determine damages sustained by the claimant. The Fund will negotiate, settle, or deny the claim based on these findings and appropriate Florida law.
- (b) pay all expenses incurred by the Fund, all costs taxed against the insured in any such proceeding or suit, and all interest accruing after entry of judgment until the Fund has paid, tendered, or deposited in court such part of such judgment as does not exceed the limit of the Fund's liability thereon;
- (c) pay amounts incurred under this insuring certificate, except settlements of claims and suits, in addition to the amounts payable under Coverage A, or the applicable limit of liability under Coverage B.

III. Definitions

- (a) Workers' Compensation Law - The workers' compensation law and any occupational disease law of a state designated in this certificate, but does not include those provisions of any such law which provide non-occupational disability benefits.
- (b) State - Any state or territory of the United States of America and the District of Columbia.
- (c) Bodily Injury by Accident - Bodily Injury by Disease - The contraction of disease is not an accident within the meaning of the word "accident", as used in the term "bodily injury by accident", and only such disease as results

directly from a bodily injury by accident is included within the term "bodily injury by accident". The term "bodily injury by disease" includes only such disease as is not included within the term "bodily injury by accident".

- (d) Assault and Battery - Under Coverage B, Assault and Battery shall be deemed an accident unless committed by or at the direction of the insured.

IV. Applications of Coverage

This certificate applies only to (1) injury by accident occurring during the coverage period, or (2) occupational injury by disease as such is defined by law which occurs during the coverage period.

V. Exclusions

This certificate does not apply under Coverage B:

- (a) to any claim or judgment for punitive damages;
- (b) to any claim for interest for the period prior to judgment;
- (c) to that portion of a claim or judgment which is in excess of the statutory limits of liability;
- (d) to liability assumed by the insured or any third party pursuant to any contract or agreement in writing;
- (e) to any obligation for which the named insured or any carrier as his insurer may be held liable under any workers' compensation, unemployment compensation or disability benefits laws, or under any similar law;
- (f) to any action by officers, employees, agents, or volunteers as defined in Chapter 110, Part V, Florida Statutes, committed in bad faith, or with malicious purpose or in a manner exhibiting wanton and willful disregard of human rights, safety, or property.

VI. Conditions:

A. Premium

Premium charges shall be assessed in accordance with the provisions of Chapter 284, Part II, Florida Statutes, and any rules promulgated thereunder utilizing a retrospective rating arrangement premium calculation method whereby 80% of the premium is based on losses actually incurred by the insured and 20% is based on the changes in risk exposures (employees, volunteers, etc.) of an insured. The premium must be paid promptly by an insured agency from its operating budget upon receiving the premium bill or invoice.

B. Inspection

The Fund shall be permitted, but not obligated, to inspect at any reasonable time, the workplaces, operations, machinery, and equipment covered by this certificate. Neither the right to make inspections, nor the making thereof, nor any report thereon shall constitute an

undertaking on behalf of or for the benefit of the insured or others, to determine or warrant that such workplaces, operations, machinery, or equipment are safe.

C. Insured's Duties in the Event of Injury, Claim or Suit

(1) Notice of Injury

When an injury occurs, notice shall be given immediately, in accordance with current reporting procedures by the insured to the Fund. Such notice shall contain particulars sufficient to identify the insured along with reasonably obtainable information respecting the time, place, circumstances of the injury, the names and addresses of the injured and all known witnesses. Such notice is to be directed to the Division of Risk Management, State Employees' Workers' Compensation Claims, P. O. Box 8020, Tallahassee, Florida 32314-8020, or to contract service vendor in accordance with current reporting procedures.

(2) Notice of Claim or Suit

If claim is made or suit or other proceedings is brought against the insured, the insured shall immediately forward to the Fund every demand, notice, summons, or other process received by it or its representative.

(3) Assistance and Cooperation of the Insured

The insured shall cooperate with the Fund, and at its request, shall attend hearings and trials, assist in effecting settlements, secure and give evidence, obtaining the attendance of witnesses. The insured shall not except at its own cost, voluntarily make any payment, assume any obligation, or incur any expense other than for such immediate medical and other services at the time of injury as are required by the Workers' Compensation Law.

(4) Statutory Provisions - Coverage A

The Fund shall be directly and primarily liable to any person entitled to the benefits of the Workers' Compensation Law under this certificate. The obligations of the Fund may be enforced by such person, or for his benefit, by any agency authorized by law, whether against the Fund alone or jointly with the insured. As between the employee and the Fund, notice or knowledge of the injury on the part of the insured shall be notice or knowledge, as the case may be, on the part of the Fund. The Fund shall, in all things, be bound by and subject to the findings, judgments, awards, decrees, orders or decisions rendered against the insured in the form and manner provided by law and within the terms, limitations, and provisions of this certificate not inconsistent with existing law.

All of the provisions of the Workers' Compensation Law shall be and remain a part of this coverage as fully and completely as if written herein insofar as coverage applies to compensation and other benefits provided by this certificate and in respect to special taxes, payments into security or other special funds, and assessments required of or levied against compensation insurance carriers under the Workers' Compensation Law.

The insured shall reimburse the Fund for any payments required of the Fund under the Workers' Compensation Law, which are made in excess of the benefits regularly provided by such law, solely because of injury to (a) any employee by reason of the serious and willful misconduct of the insured, or (b) any employee employed by the insured in violation of law with the knowledge or acquiescence of the insured or any executive officer thereof.

(5) Limits of Liability - Coverage B

The words "damages because of bodily injury by accident or disease, including death at any time resulting therefrom" in Coverage B include damages for care and loss of services and damages for which the insured is liable by reason of suits or claims brought against the insured by others because of such bodily injury sustained by employees of the insured arising out of and in the course of their employment. The limits of liability for Coverage B are those established by Section 768.28, Florida Statutes.

(6) Other Insurance

Coverage A - If the insured has other insurance against a loss covered by this certificate, the Fund shall not be liable to the insured hereunder for (1) a greater proportion of such loss than the amount which would have been payable under this certificate had no such other insurance existed, and (2) the amount which would have been payable under each other policy applicable to such loss had each such policy been the only policy so applicable.

Coverage B - If there is a valid and collectible policy of insurance applicable to any otherwise valid claim hereunder, the coverage extended by this certificate shall not apply.

(7) Subrogation

In the event of any payment under this certificate, the Fund shall be subrogated to all rights of recovery therefor of the insured and any person entitled to the benefits of this coverage against any person or organization, and the insured shall execute and deliver instruments and papers and do whatever else is necessary to secure such rights. The insured shall do nothing after loss to prejudice such rights.

(8) Cancellation

Failure of the Fund to receive the amount of premiums billed to the insured agency within the time frames allowed by law may result in cancellation of the certificate of coverage. Payments must be made promptly from the insured's operating budget upon receipt of the premium bill as specified in Section 284.36, Florida Statutes, and lack of prompt payment will result in a request from the Fund to the Comptroller to transfer premiums from any available funds of the delinquent agency under the provisions of Section 284.44(7), Florida Statutes.

(9) Terms of Coverage Conformed to Statute

Terms of this certificate which are in conflict with the provisions of the Workers' Compensation Law, or Section 768.28, Florida Statutes, are hereby amended to conform to such laws.

(10) Self-Insurance Coverage

Coverage for defending and paying claims under this certificate is provided under the authority of Chapter 284, Florida Statutes, wherein the state is authorized to administer a self-insurance program. Provision of this certificate does not constitute the issuance of insurance other than on a self-insurance basis, and payment of any covered claim obligations is contingent upon availability of legislative funding.