

RESOLUTION NO. 06- 402

**A RESOLUTION OF THE TOWN COUNCIL OF THE TOWN OF MIAMI LAKES, FLORIDA APPROVING THE AGREEMENT BETWEEN FLORIDA INTERNATIONAL UNIVERSITY AND THE TOWN OF MIAMI LAKES FOR MONITORING, ASSESSMENT, EDUCATION AND MANAGEMENT OF AQUATIC RESOURCES IN MIAMI LAKES; AUTHORIZING THE TOWN MANAGER AND TOWN ATTORNEY TO IMPLEMENT THE TERMS AND CONDITIONS OF THE AGREEMENT; AUTHORIZING THE TOWN MANAGER TO EXPEND BUDGETED FUNDS; AUTHORIZING THE TOWN MANAGER TO EXECUTE THE AGREEMENT; AND PROVIDING FOR AN EFFECTIVE DATE.**

**WHEREAS**, the Florida International University (hereinafter the “Consultant”) and the Town of Miami Lakes Florida (hereinafter the “Town”) have agreed upon a scope of services, schedule, and fee for monitoring, assessment, education and management of aquatic resources in Miami Lakes, Florida (hereinafter the “Agreement”); and

**WHEREAS**, the Town Manager recommends engaging the Consultant to perform the services specified below; and

**WHEREAS**, the Town Council finds that approval of the Agreement is in the best interest of the Town.

**NOW, THEREFORE, BE IT RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF MIAMI LAKES, FLORIDA, AS FOLLOWS:**

**Section 1. Recitals.** The above recitals are true and correct and incorporated into this Resolution by this reference.

**Section 2. Approval of Agreement.** The Agreement between the Consultant and the Town, a copy of which is attached as Exhibit “A,” together with such non-material

changes as may be acceptable to the Town Manager and approved as to form and legality by the Town Attorney, is approved.

**Section 3. Authorization of Town Officials.** The Town Manager and/or his designee and the Town Attorney are authorized to take all actions necessary to implement the terms and conditions of the Agreement.

**Section 4. Authorization of Fund Expenditure.** Notwithstanding the limitations imposed upon the Town Manager pursuant to the Town's Purchasing Procedures Ordinance, the Town Manager is authorized to expend budgeted funds to implement the terms and conditions of the Agreement.

**Section 5. Execution of Agreement.** The Town Manager is authorized to execute the Agreement on behalf of the Town, to execute any required agreements and/or documents to implement the terms and conditions of the Agreement and to execute any extensions and/or amendments to the Agreement, subject to the approval as to form and legality by the Town Attorney.

**Section 6. Effective Date.** This Resolution shall take effect immediately upon adoption.


PASSED AND ADOPTED this 9th day of May, 2006.

Motion to adopt by Mary Collins, second by Mayor Wayne Slaton.

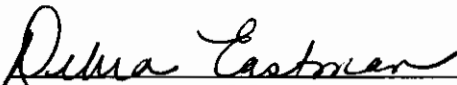
#### FINAL VOTE AT ADOPTION

Mayor Wayne Slaton	yes
Vice Mayor Robert Meador	yes
Councilmember Roberto Alonso	yes


Councilmember Mary Collins      yes  
Councilmember Dorothy Cook      yes  
Councilmember Michael Pizzi      yes  
Councilmember Nancy Simon      yes

  
\_\_\_\_\_  
Wayne Slaton  
MAYOR

ATTEST:

  
\_\_\_\_\_  
Debra Eastman, MMC  
TOWN CLERK

Approved as to form and legality for the use  
and benefit of the Town of Miami Lakes only:

  
\_\_\_\_\_  
Weiss, Serota, Helfman, Pastoriza,  
Cole & Boniske, P.A.  
TOWN ATTORNEY

**EXHIBIT "A"**

**PROFESSIONAL SERVICES AGREEMENT BETWEEN  
THE TOWN OF MIAMI LAKES  
AND  
FLORIDA INTERNATIONAL UNIVERSITY**

**THIS AGREEMENT** is made between the **TOWN OF MIAMI LAKES, FLORIDA**, a Florida municipal corporation (hereinafter the "Town"), and **FLORIDA INTERNATIONAL UNIVERSITY**, a public university.

**WHEREAS**, the Consultant and Town, through mutual negotiation, have agreed upon a scope of services, schedule, and fee for monitoring, assessment, education and management of aquatic resources in Miami Lakes, Florida (the "Project"); and

**WHEREAS**, the Town desires to engage the Consultant to perform the services specified below.

**NOW, THEREFORE**, in consideration of the mutual covenants and conditions contained herein, the Consultant and the Town agree as follows.

1. **Scope of Services/Deliverables.**

- 1.1. The Consultant shall provide services for the Project described in Exhibit "A" attached to this Agreement.
- 1.2. The Consultant shall furnish professional services to the Town as set forth in the Scope of Services for the Project as specified in Exhibit "B" attached to this Agreement.
- 1.3. The Consultant shall provide the Deliverables for the Project specified in Exhibit "C" attached to this Agreement.
- 1.4. The Consultant shall be compensated based upon the Project and Payment Schedules specified in Exhibit "D" attached to this Agreement.

2. **Term/Commencement Date.**

- 2.1 This Agreement shall become effective upon execution by both parties and shall remain in effect through February 28, 2007, unless earlier terminated in accordance with Paragraph 8. The Town Manager may extend the term of this Agreement up to an additional 180 days by written notice to the Consultant.

2.2 Consultant agrees to complete each deliverable for the Project within the timeframes set forth in the Project and Payment Schedule, unless extended by the Town Manager.

3. **Compensation and Payment.**

3.1 The Consultant shall be compensated at the lump sum of \$50,000.00.

3.2 The Consultant shall invoice the Town upon the completion of each task or deliverable in accordance with the Project Schedule or on a monthly basis if the Project Schedule does not otherwise specify.

3.3 The Town shall pay Consultant in accordance with the Florida Prompt Payment Act.

3.4 If a dispute should occur regarding an invoice submitted, the Town Manager may withhold payment of the disputed amount and may pay to the Consultant the undisputed portion of the invoice. Upon written request of the Town Manager, the Consultant shall provide written documentation to justify the invoice. Any compensation disputes shall be decided by the Town Manager whose decision shall be final.

4. **Subconsultants.**

4.1 The Consultant shall be responsible for all payments to any subconsultants and shall maintain responsibility for all work related to the Project.

4.2 Any subconsultants used on the Project must have the prior written approval of the Town Manager.

5. **Town's Responsibilities**

5.1 Furnish to Consultant, at the Consultant's written request, all available maps, plans, existing studies, reports and other data pertinent to the services to be provided by Consultant, in possession of the Town.

5.2 Arrange for access to and make all provisions for Consultant to enter upon real property as required for Consultant to perform services as may be requested in writing by the Consultant.

6. **Consultant's Responsibilities**

6.1 The Consultant shall exercise the same degree of care, skill and diligence in the performance of the Project as is ordinarily provided by a consultant under similar circumstances. If at any time during the term of this

Agreement or within one year from the completion of the Project, it is determined that the Consultant's deliverables are incorrect, defective or fail to conform to the Scope of Services of the Project, upon written notification from the Town Manager, the Consultant shall at Consultants sole expense, immediately correct the work.

7. **Conflict of Interest.**

7.1 To avoid any conflict of interest or any appearance thereof, Consultant shall not, for the term of this Agreement, provide any consulting services to any private sector entities (developers, corporations, real estate investors, etc.), with regard to any adversarial issues in the Town.

8. **Termination.**

8.1 The Town Manager without cause may terminate this Agreement upon thirty (30) days written notice to the Consultant, or immediately with cause.

8.2 Upon receipt of the Town's written notice of termination, Consultant shall stop work on the Project unless directed otherwise by the Town Manager.

8.3 In the event of termination by the Town, the Consultant shall be paid for all work accepted by the Town Manager up to the date of termination, plus all non-cancelable commitments entered into by Consultant in furtherance of this agreement which were entered into prior to receipt of notice of termination, provided that the Consultant has first complied with the provisions of Paragraph 8.4.

8.4 The Consultant shall transfer a copy of all books, records, reports, working drafts, documents, maps, and data pertaining to the Project to the Town, in a hard copy or electronic format, as appropriate, within 14 days from the date of the written notice of termination or the date of expiration of this Agreement.

9. **Insurance.**

The Consultant, a State of Florida agency, will provide proof of general liability insurance coverage under the State of Florida Risk Management Trust Fund, established pursuant to section 284.30, Florida Statutes, and administered by the State of Florida, Department of Insurance, and will provide workers' compensation insurance as required by statute.

10. **Nondiscrimination.**

10.1 During the term of this Agreement, Consultant shall not discriminate against any of its employees or applicants for employment because of their race, color, religion, sex, or national origin, and to abide by all Federal and State laws regarding nondiscrimination

11. **Attorneys Fees and Waiver of Jury Trial.**

11.1 In the event of any litigation arising out of this Agreement, the prevailing party shall be entitled to recover its attorneys' fees and costs, including the fees and expenses of any paralegals, law clerks and legal assistants, and including fees and expenses charged for representation at both the trial and appellate levels.

11.2 In the event of any litigation arising out of this Agreement, each party hereby knowingly, irrevocably, voluntarily and intentionally waives its right to trial by jury.

12. **Indemnification.**

12.1 To the extent permitted by and within the limitations of Fla. Stat. Section 768.28, Consultant shall defend, indemnify, and hold harmless the Town, its officers, agents and employees, from and against any and all demands, claims, losses, suits, liabilities, causes of action, judgment or damages, arising out of, related to, or any way connected with Consultant's performance or non-performance of any provision of this Agreement.

12.2 The provisions of this section shall survive termination of this Agreement.

13. **Notices/Authorized Representatives.**

13.1 Any notices required by this Agreement shall be in writing and shall be deemed to have been properly given if transmitted by hand-delivery, by registered or certified mail with postage prepaid return receipt requested, or by a private postal service, addressed to the parties (or their successors) at the following addresses:

For the Town: Alex Rey, Town Manager  
Town of Miami Lakes, Florida  
6853 Main Street  
Miami Lakes, FL 33014

For The Consultant: Leonard J. Scinto, Ph.D.  
Southeast Environmental Research Center

14. **Governing Law.**

14.1 This Agreement shall be construed in accordance with and governed by the laws of the State of Florida. Exclusive venue for any litigation arising out of this Agreement shall be in Miami-Dade County, Florida.

15. **Entire Agreement/Modification/Amendment.**

15.1 This writing contains the entire Agreement of the parties and supercedes any prior oral or written representations. No representations were made or relied upon by either party, other than those that are expressly set forth herein.

15.2 No agent, employee, or other representative of either party is empowered to modify or amend the terms of this Agreement, unless executed with the same formality as this document.

16. **Ownership and Access to Records and Audits.**

16.1 All records, books, documents, maps, data, deliverables, papers and financial information (the "Records") that result from the Consultant providing services to the Town under this Agreement shall be the property of the Consultant and Consultant hereby grants to the Town a royalty-free, non-exclusive license to use such material delivered to the Town pursuant to this agreement.

16.2 The Town Manager or his designee shall, during the term of this Agreement and for a period of three (3) years from the date of termination of this Agreement, have access to and the right to examine and audit any Records of the Consultant involving transactions related to this Agreement.

16.3 The Town may cancel this Agreement for refusal by the Consultant to allow access by the Town Manager or his designee to any Records pertaining to work performed under this Agreement that are subject to the provisions of Chapter 119, Florida Statutes.

17. **Nonassignability.**

17.1 This Agreement shall not be assignable by Consultant unless such assignment is first approved by the Town Manager. The Town is relying upon the apparent qualifications and personal expertise of the Consultant,



and such firm's familiarity with the Town's area, circumstances and desires.

18. **Severability.**

18.1 If any term or provision of this Agreement shall to any extent be held invalid or unenforceable, the remainder of this Agreement shall not be affected thereby, and each remaining term and provision of this Agreement shall be valid and be enforceable to the fullest extent permitted by law.

19. **Independent Contractor.**

19.1 The Consultant and its employees, volunteers and agents shall be and remain independent contractor and not agents or employees of the Town with respect to all of the acts and services performed by and under the terms of this Agreement. This Agreement shall not in any way be construed to create a partnership, association or any other kind of joint undertaking, enterprise or venture between the parties.

20. **Compliance with Laws.**

20.1 The Consultant shall comply with all applicable laws, ordinances, rules, regulations, and lawful orders of public authorities relating to the Project.

21. **Waiver**

21.1 The failure of either party to this Agreement to object to or to take affirmative action with respect to any conduct of the other which is in violation of the terms of this Agreement shall not be construed as a waiver of the violation or breach, or of any future violation, breach or wrongful conduct.

22. **Survival of Provisions**

22.1 Any terms or conditions of either this Agreement that require acts beyond the date of the term of the Agreement, shall survive termination of the Agreement, shall remain in full force and effect unless and until the terms or conditions are completed and shall be fully enforceable by either party.

23. **Prohibition Of Contingency Fees.**

23.1 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 Agreement, and that it has not paid or agreed to pay any person(s), company, corporation, individual or firm, other than a bona fide employee working solely for the Consultant, any

fee, commission, percentage, gift, or any other consideration, contingent upon or resulting from the award or making of this Agreement.

24. **Counterparts**

24.1 This Agreement may be executed in several counterparts, each of which shall be deemed an original and such counterparts shall constitute one and the same instrument.

**IN WITNESS WHEREOF**, the parties execute this Agreement on the respective dates under each signature: The Town, signing by and through its Town Manager, attested to by its Town Clerk, duly authorized to execute same and by Consultant by and through its \_\_\_\_\_, whose representative has been duly authorized to execute same.

Attest:

TOWN OF MIAMI LAKES

\_\_\_\_\_  
Debra Eastman, Town Clerk

By: \_\_\_\_\_  
Alex Rey, Town Manager

Date: \_\_\_\_\_

Approved as to form and legality for the use and benefit of the Town of Miami Lakes only:

\_\_\_\_\_  
Weiss Serota Helfman Pastoriza Cole & Boniske, P.A.

CONSULTANT

By: \_\_\_\_\_  
Authorized Representative

Date: \_\_\_\_\_

## **EXHIBIT "A"**

### **PROJECT**

#### **Miami Lakes**

Miami Lakes is a community of approximately 24,000 residents located in Northwestern Miami Dade County, Florida. This town, incorporated in 2000, encompasses 6.5 square miles, contains approximately 27 named lakes, and has 6 recreational lake parks. This community is very concerned with the quality of its lakes and has formed a Lakes Committee as part of the Miami Lakes Civic Association (MLCA) working with the support of the Town of Miami Lakes.

Land use in Miami Lakes is estimated at 52% residential, 23% commercial/industrial, 12% lake area, 5% parks, and 8% undeveloped. The Town's operating budget in 2005/06 is \$15.0 million. Residential wastewater is managed by the Miami-Dade County Department of Water and Sewer Department. There are supposedly no active septic systems in Miami Lakes. Community-based programs include the Canal Bank (C-8) clean-up effort and a Neighborhood grant program where Miami Lakes provides homeowners with matching funds for improvements. ([www.mlca.org](http://www.mlca.org)).

The Town & MLCA are interested in testing lake waters and establishing a median quality and ecological balance. Currently, over five groups monitor, stock, and treat the approximately 27 lakes in this community. All groups are self monitored. The Town of Miami Lakes is a community which revolves around its lakes and prides itself in taking care of the environment.

This interest in lake water quality and aquatic ecology has provided the impetus for a cooperative agreement between Town of Miami Lakes and Florida International University (FIU). FIU will help to educate the citizens of Miami Lakes, will work to establish overall water quality objectives, and provide restoration methods where needed to provide lake ecologic balance.

Preliminary information provided by the Town and the MLCA listed 27 lakes varying in size from 2 to over 40 acres. Most are bordered by residential use including multiple family developments and some are bordered by commercial and industrial processes. All these lakes were man-made as the land was excavated to provide building fill. The oldest lake is slightly older than 40 years and the youngest is approximately 20 years old.

#### **Lakes in the Urban landscape: Ecology and Management**

Urban lakes, either natural or man-made, serve several important functions in the metropolitan landscape. Many urban lakes such as those of Miami Lakes, originated as borrow pits where the substrata was removed to provide building fill thus leaving geometric depressions in the landscape. These lakes can form an important part of the communities "green space" providing a broad range of recreational activities and aesthetics while continuing to provide water retention and flood protection.

Many urban lakes are under the threat of becoming increasingly eutrophic. Eutrophication can be defined as the enrichment of waterways with nutrients resulting in abundant and excessive plant growth to produce an undesirable disturbance to the balance of organism and the quality of water (Moore et al 1991). Eutrophication is the single largest cause of water quality degradation in U.S Lakes (Paul and Gerritsen, 2002).

Lakes, being depressions in the landscape accumulate materials transported in runoff from areas of higher elevation. Although eutrophication is a natural process many activities associated with human development greatly accelerate the rates of eutrophication.

The essential nutrients phosphorus (P) and nitrogen (N) are the elements most often implicated in the eutrophication of lakes, with P responsible for most cases in freshwater lakes. All living organisms require these nutrients for growth and reproduction. Thus the growth of plant materials, either algae or rooted submerged and emergent vegetation, is limited by their supply. These nutrients are usually present in small amount in lake water relative to their requirement thus limiting plant growth and cell production (Cohen, 2003). In fact, a lakes trophic state is frequently assessed from chemical measurement of total P (TP) and total N (TN) and the degree of limitation is inferred from the TP: TN ratio (Schelske et al, 1999).

Recent models of nutrient enrichment in shallow lakes have shown that when P levels increased above a certain threshold there is a shift in the primary producer community (photosynthetic algae and plants that form the base of the aquatic food web) from rooted submerged macrophytes to phytoplankton (single-celled algae floating in the water and giving it a green appearance) (Kenny et al, 2002). One example of this is seen in the shallow hypereutrophic Lake Apopka located near Orlando in Central Florida U.S (Bachman et al, 2000). This shift is caused by the increased nutrients aiding in the proliferation of algal organisms (phytoplankton) that can rapidly exploit the additional nutrient resource. The phytoplankton rapidly multiply (algal bloom) and photosynthesize thus fixing atmospheric CO<sub>2</sub> into biomass (organic material of which living cells are composed). As the nutrients are depleted the cells die and release a large portion of their previously contained nutrients. The remaining organic material settles to the sediment surface where it is broken down and converted back into CO<sub>2</sub> through microbial respiration. This respiration is most efficient when dissolved oxygen (DO) is present. When the supply of organic material exceeds the ability of the water column to supply adequate DO for decomposition then the organic matter begins to accumulate on the sediment as a flocculent detrital layer (floc). Decomposition in the floc layer consumes DO that could be used by more desirable organisms (fish). Many fish species, such as bass (*Micropterus salmoides*); lay their eggs in shallow depressions on the sediment surface. These eggs must remain aerobic (available DO) if successful hatching is to occur. Fish cannot produce viable offspring if the eggs become starved for O<sub>2</sub>. Increasing the DO content of the water is the reason many small lake managers install aerators or fountains. Unfortunately, these often aerate only localized areas and generally can not keep up with the oxygen demand.

Several attributes of a waterbody determine its susceptibility to eutrophication. These include the basin morphology, connectivity of adjacent water, sediment chemistry, nutrient cycling in the watershed, and the presence of littoral and wetland vegetation. The shape, depth, and surface area to volume ratio are important attributes of lakes. Small, shallow, geometrically shaped lakes with little or no real littoral zones (areas where light penetrates to the sediment surface and

allows the growth of rooted vegetation) are highly susceptible to eutrophication processes. Isolated lakes with few inflows and outflows tend to accumulate nutrients and materials and do not flush well. This results in lakes with nutrient cycles (and associated problems) that are dominated by internal cycling and can lead to long-term difficulties in restoration. The sediment chemistry has a large effect on water column water chemistry. Some sediments have a high retention capacity for nutrients and thus bind them so that they are not readily released to the water column where they can become available to phytoplankton. Additionally, cohesive sediments allow rooting substrate for aquatic macrophytes which themselves help to remove nutrients from the water column. Sediment chemistry is often used in paleolimnological studies to determine the accretion rates of organic matter and nutrients in lakes. We can determine the accretion rates in each of the waterbodies in Miami Lakes without sediment dating because we know each lakes age. Small urban lakes and retention ponds are susceptible to runoff from roads, parking lots, lawns, and other surfaces of the urban landscape. Lawn fertilization practices and allowing grass clippings to enter the lake can add excess nutrients. Irrigating unfertilized lawns with nutrient laden lake water can fertilize the grass while removing nutrients form the water before it seeps back to the lake. Finally, littoral zones and wetlands either naturally vegetated or as restored shorelines, protect water quality by filtering pollutants and taking up excess nutrients. Shoreline vegetation also provides needed habitat for fish and wildlife as well a providing ascetic benefits.

Lakes can provide a number of useful and enjoyable benefits including: aesthetics, flood prevention, recreational activities such as fishing and swimming, and can provide irrigation water for lawns. Not all lakes will provide these benefits to the same degree. Therefore an assessment of the major use of each waterbody will be necessary and will determine, to some extent, how a lake should be managed. Not all stakeholders have the same ideas of what makes and aesthetically pleasing lake. Many people would see open water views as more pleasing compared to vegetated shorelines, even if it means turbid, green waters with little other benefits. While others allow for an abundance of aquatic vegetation and the increased fisheries supported. Education and consensus building among the affected community are important endeavors to achieve overall satisfaction with a community lake management program.

## **Objectives**

To assess the aquatic resources of Miami Lakes, Florida, especially regarding water quality and ecological health, in an effort to establish good management practices and promote urban conservation and environmental education.

Information gained can/will be used to: prioritize appropriate management decisions for appropriate lake uses, determine feasible mechanism of improving water quality such that all lakes will comply with a minimum set of standards, enhance visible appeal of the lakes, aid in developing a conservation and ecological aesthetic, increase local biodiversity, and provide information to enhance environmental education.

## **EXHIBIT "B"**

### **SCOPE OF SERVICES**

- I. **CONSULTANT shall provide the following services to the TOWN:**
  1. the development of an Integrated Management Plan for the water bodies of Miami Lakes, FL that would set standards of safety and quality to be met by all lakes and to be implemented by any contractors working in this community (both in the university and private);
  2. Coordination, planning, and implementation of a water quality monitoring program in the lakes. This would also include an initial survey of lake physiography, threats, and habitat quality;
  3. Identifying restoration needs and planning implementation of restoration activities if needed; and
  4. Designing and implementing a program of community out reach and education to raise awareness and encourage more "lake-friendly" practices at the household level.
  
- II. **In providing the services listed above the CONSULTANT shall utilize the following Methods and include the results of the services below as part of the scope of services:**
  1. **CONSULTANT proposes that their initial work shall be focused on developing a comprehensive survey of the aquatic resources of Miami Lakes. Each lake (27) would be visited to conduct initial water quality sampling, make visual assessments, identify dominant aquatic vegetation and coverage, and perform some basic morphological analysis. Morphological analysis will include review of aerial photographs and/or satellite imagery, construction plats, and bathymetric sampling to determine the shape, surface area, and approximate volume of each lake. Additionally, we would conduct extensive "data mining" if possible, going through records and analysis reports to determine changes in water quality conditions through time. We would also review the management scenarios currently in practice on each of the lakes.**
  
  - 2 **Visual assessments will be conducted to include identification of dominant aquatic vegetation and coverage within each lake. Mapping of margin conditions, including the extent and type of emergent vegetation, immediate land use on lake boundary, and the presence of areas of special concern (discharge pipes, swimming areas, etc.) will be conducted.**
  
  3. **Work with the community to develop a table of feasible priority uses for each lake (Table 1) and will work to educate stakeholders in the ecological needs of each lake to fit its priority use.**

4. Water and sediment sampling and analyses will be conducted to determine the lakes current water quality and to determine rates of materials accumulation (sediment/floc) in each lake. If possible we would obtain histories of previous lake water quality and previous treatment methods. All physicochemical sample analysis possibly including: Total and soluble nutrients, Chlorophyll a, sediment total C, N, P, biological oxygen demand, pH, DO, etc. will be conducted according to accepted standard methods as used by the Freshwater Biogeochemistry Laboratory and the Water Quality Laboratory of the Southeast Environmental Research Center, Florida International University. One purpose of this approach would be to determine the similarities and differences between the water bodies in Miami Lakes such that the lakes may be grouped by like characteristics. Management scenarios may then be applied to similar lakes providing greater efficiency.

Table 1. Example of table to be developed to define priority of purpose for each lake.

Lake Name	Size (acres)	Swimming	Irrigation	Floodwater retention	Fishing
Lake Patricia	21	1	4	3	2
Lake Katharine	28	2	3	4	1
Loch Lomond	13	4	2	1	3

## **EXHIBIT "C"**

### **DELIVERABLES**

- I. The CONSULTANT shall produce a Report to the Town which shall include:
  1. A survey and catalog of the lakes and their conditions, including causes of concern.
  2. An integrated assessment of each lake including attributes, best probable use, and possible management recommendations.
  3. Coordinate the efforts of the community and the lake management companies to develop and implement a consistent water quality monitoring network.
  4. Suggestions to restoration efforts if needed.
- II. Additionally, the CONSULTANT will assist in the development of educational materials such as PowerPoint presentations and brochures to help educate the citizens of Miami Lakes in lake ecology and management. Where possible work will be conducted with notification/collaboration with stakeholders and other regulatory and management entities including: Florida Department of Environmental Protection (FDEP), Miami-Dade County Department of Environmental Regulation and Management (DERM), etc.
- III. Attend three workshops and make one presentation to the Town Council of the Report.



**EXHIBIT "D"**

**PROJECT AND PAYMENT SCHEDULE**

**I. Lump Sum Compensation.**

The majority of tasks involved in this project will be conducted off-campus on the waterbodies of Miami Lakes FL. The budget shall be as follows:

Date	Item Description	Cost
	Salary and fringe, senior personnel, Dr. L.J. Scinto, 4.5 pay periods	\$15100
	Salary and fringe, OPS technicians	\$16000
	Boat, vehicle, and equipment usage, SERC FOC	\$3500
	Water and sediment sample analysis	\$4240
	Consumable field and laboratory supplies	\$1160
		Subtotal \$40000
	Overhead to FIU at 25%	\$10000
		Total \$50000

**II. Payment Schedule.**

The CONSULTANT shall be paid upon the following Payment Schedule:

Payment will be made based on the Tasks that have been performed each month. However, in no event will the total accumulated payments exceed \$50,000.