



Aquatic Systems, Inc.

ENVIRONMENTAL SERVICES & PRODUCTS

680 N.E. 42nd Street • Pompano Beach, FL 33064 • (305) 785-3374 • Fax (305) 785-6333 • Statewide 1-800-432-4302

WATERWAY MANAGEMENT PROGRAM

Oak Manor Groves

Largo, Florida



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July 21, 1992

Mr. Art Buelow
Oak Manor Groves
13796 Wilcox Road
Largo, Florida 34644

Dear Mr. Buelow:

At your request, on July 15, 1992, we surveyed the waterway system at **Oak Manor Groves**.

We found:

The property has one lake in need of environmental resource management.

Total surface cover is approximately 1.8 acres with shoreline perimeter totaling 1,250 linear feet.

Stormwater runoff enters the waterway along sodded, sloped banks and underground culverts.

To summarize the aquatic conditions observed during our survey:

The waterway contains growth of planktonic and filamentous algae. Mats of filamentous algae cover much of the surface and bottom areas, and were found along the shallow perimeter regions.

Noxious growth of the aquatic weeds, pennywort and southern naiad, was evident.

Shoreline invasives (especially torpedograss) are growing into the water around the waterway perimeter where they have rooted. Growth extends out to five feet in areas.

This undesirable growth cannot be maintained by conventional means. These areas also provide a habitat for mosquitos, snakes and other water-related pests.

Aquatic growth in the water will impede flow at drainage culverts.

Aquatic growth around irrigation piping also exposes expensive pumping equipment to possible damage and unnecessary maintenance expense due to aquatic weed and algae intake (see photos).

Water clarity was generally fair throughout the system.

Our field observations indicate fish and wildlife dynamics are in order. A variety of waterfowl indigenous to the area were noted. Bass and Bream (desirable fish species) were observed.

Other observations noted during the survey which are important to a successful waterway management program at Oak Manor Groves are:

The waterway provides a source of irrigation for turf maintenance.

In addition to stormwater runoff entering the waterway, fertilization of surrounding turf areas is conducted; thus, artificially creating higher than normal nutrient levels in the waters. This stimulates aquatic growth.

A floating fountain-type aerator, with a decorative spray pattern, would help to beautify the highly visible waterway, while assisting nature with many biological benefits. Our company manufactures, installs and maintains fountain aerators. Please see the Information Section at the end of the proposal.

We recommend that this integrated Aquatic Systems program of waterway management be initiated as soon as possible:

Control and maintenance of the algae.

Control and maintenance of all existing noxious aquatic weeds growing in the waterway.

Scheduled inspections, with treatment as necessary, to prevent the development of any new undesirable aquatic weed species through introduction by drainage transfer or other natural processes.

Control and maintenance of the shoreline grasses growing in the water to the water's edge.

We suggest the utilization of a biological method, the Triploid Grass Carp, to assist in the control of submersed aquatic weeds. We will initiate and complete all necessary proceedings to obtain permitting for stocking of these herbivorous fish.

Performance of a water chemistry and bacteria analysis, as required by ASI for the success of the aquatic weed control program.

Establishment of a professional reporting system for property management administration.

We have enclosed the following agreement:

• **WATERWAY MANAGEMENT with Triploid Grass Carp**

Kindly sign the contract and Addendum and return to us as soon as possible, so we may schedule your program.

Also, please sign and return to ASI the attached Grass Carp Application Form as the waterway management contract cannot be processed without it.

Please note that our price is predicated on the initiation of lake maintenance before noxious growth develops further.

This presentation also contains a list of state-wide references, sample report forms and a pertinent information section. We care for waterways at Lake St. George, Saddlebrook, Hunter's Green, Placido Bayou and other distinctive communities in your area that demand the highest standard of satisfaction.

Mr. Buelow, a waterway system thrives on the oxygen-producing and nutrient up-taking properties of its plant life. It is the intent of AQUATIC SYSTEMS to provide an ecological balance so that both the waterway ecosystem, including fish and animal life, and the neighboring community can benefit.

We look forward to working with you in implementing this integrated program at Oak Manor Groves!

Kindest regards,



Douglas Agnew
General Manager/Biologist

DA/mjk

Enclosures

5-25-93 - OAK MANOR GROVES

II OF HOMES.

WATERWAY SURVEY REPORT

Customer: **Oak Manor Groves**

Inspection Date: **July 15, 1992**

Waterway(s)	Perimeter (linear feet)	Surface Cover (in acres)
#1 Lake	1,250'	1.80

AQUATIC SYSTEMS, INC.

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**AQUATIC SYSTEMS AND YOU ...
A PARTNERSHIP FOR BETTER LAKES**

