

**Lake of the Woods MSBU  
Annual Meetings and Report  
Tuesday, August 17, 2010**

List of county participants:

Gloria Eby, Thomas Calhoun, Dean Barber and Carol Watral

List of lake resident participants:

Donna Stodtko (Lake of the Woods Townhomes)

Purpose:

This meeting was scheduled for the purpose of reviewing project status, communication and direction with the liaison group for the upcoming fiscal year.

**Updates of these inspections/results are provided to the community liaison members via the e-mail contact list. If you wish to be included in these updates, please e-mail Gloria Eby, Lake Management Program (LMP) biologist, at [geby@seminolecountyfl.gov](mailto:geby@seminolecountyfl.gov).**

**Annual Meeting Synopsis:**

Lake Management will remind Applied Aquatic Management (AAM) to spray up to the foot bridge at Lake of the Woods Townhomes. Some townhome residents continue to note weeds, specifically cattails, on the lake by their units. The hotel on the west shoreline previously cleared cattails from their shoreline in 2009.

The successful volunteer restoration event held on April 15 was discussed and reviewed. The many other lake activity events were also reviewed, including the hydrilla treatment and grass carp stockings.

Donna Stodtko indicated she would try to encourage increased involvement by the Lake of The Woods Townhome residents in future events.

Also discussed was the current fiscal year and future fiscal year budget. The annual non-ad valorem assessment of \$380.00 will remain the same for FY1011 (October 1, 2010 through September 30, 2011).

**County Funding:**

At no cost to the lakefront homeowners, Lake of the Woods is extensively monitored by County biologists [Lake Management Program (LMP)] on a monthly basis. This includes treatment prescription and assessment of the hydrilla population, oversight of the aquatic herbicide contract for the treatment of torpedo grass and emergent nuisance vegetation, continued evaluation of grass carp needs, coordinating any additional treatments and providing community updates on the status of all treatments and lake assessments. Additionally, LMP provided free aquatic plant material and outside community volunteers for shoreline restoration workshops as scheduled.

**2009- 2010 Lake Management Activities:**

**Important to Note:** *When herbicide spraying is being applied for invasive plants such as torpedo grass, toxic overspray on to adjacent desirable vegetation will occur. To avoid this, manually (by hand) pull the non-desirable species from among the desirable species. If the invasive plants are removed by this method, it will not be necessary for the contractor to spray that area, sparing the desirable vegetation from injury. Additionally, your removal of any treated/dead invasive plant will increase the success of the efforts of eradicating the invasive plant from your water body.*

It has been an active spring and summer for Lake of the Woods with the following events:

- A very successful volunteer restoration event held on April 15, 2010,
- Large hydrilla treatment conducted on May 14, 2010,
- Triploid grass carp stockings totaling 180 fish,
- Special lake bioassessment conducted on May 26, 2010,
- Wellington Cove pond maintenance performed July 2, 2010 (fixed grate to trash collector and cleared vegetation at outfall pipe),
- Lake Management Program funded cattail restoration (removal) project lake-wide during the month of June, and
- Vegetation removal/debris clearing on August 8, 2010 of the Wellington ponds A (front pond) & B (back pond) and clearing the outfall of Lake of the Woods to remove unwanted vegetation/debris that is impeding flow.

A street sweeping program (an important management practice to reduce potential sediments [phosphorus] from entering the lake) is currently being reevaluated to determine the needs/frequency in areas of heightened concern. The direct area surrounding Lake of the Woods has been identified as one of these critical areas and will be included as part of this reevaluation process. Currently, the street sweeping schedule for this area is seven (7) times per year.

Overall, the hydrilla treatment was very successful and we are seeing a reduction in hydrilla (plant is stressed) in other parts of the lake. This may be due in part to the grass carp stockings. We will diligently monitor hydrilla as this *and* having a funded aquatic plant management program is critical to the success of managing hydrilla and your lake. The restoration plantings are doing exceptionally well and expanding throughout the lake. We have noticed the increase of eelgrass, a beneficial native plant. This is a plant that is not listed on our aquatic weed control permit issued by the state (Florida Fish and Wildlife Conservation Commission [FWC]); should an individual wish to reduce this native plant, for individual recreation access only, you would need to contact Amy L. Giannotti with FWC at [Amy.Giannotti@myfwc.com](mailto:Amy.Giannotti@myfwc.com) or (407) 858-6170 to obtain a permit to do so.

In July of 2010 submerged aquatic vegetation (SAV) observed included: coontail to a depth of 7 feet, road grass to 7 feet, the invasive exotic hydrilla to 7 feet, southern naiad to 7 feet, stonewort to 4.5 feet, and eelgrass to 6 feet. There is a good distribution of native SAV throughout a depth range from inshore to offshore providing competition for space with hydrilla. Additionally the hydrilla populations were reduced from that observed during the previous three monthly inspections (March, April & May). Hydrilla plants were small (2-4 inches in length), stressed, with no new growth, compared to the May survey where this same plant was healthy with strands over 4 foot in length. Also during this LVI, eelgrass was the dominant aquatic plant in 2 of the 4 sectors surveyed. With all of these native plant competitions, recent herbicide treatment and additional stocking of the triploid grass carp, the hydrilla is being impacted. The dominant aquatic plant in the other 2 LVI sectors was the native lily, spatterdock, which is present throughout the lake to a depth of 6-7 feet. Torpedo grass, although not dominant in any of the 4 LVI sectors, continues to be an abundant emergent aquatic plant adjacent to the shore. However, with the expansion of the aquatic plants (pickerelweed, duck potato, canna and iris) from the lake planting events, subsequent expansion of other native emergent aquatic plants, including maidencane grass, the monthly herbicide treatment of the torpedo grass, and removal of cattails, torpedo grass is declining. Few water hyacinths were seen. Secchi (water clarity) was 5.4 feet in a depth of 12.2 feet (7/7/10) and 3.6 feet (7/21/10) compared to previous 3.8 feet (5/26/10).

Also observed **on a routine basis**; grass clippings are being blown *directly* into the lake. During each inspection we are finding this activity taking place. Be sure to educate your hired services on how to protect **your** lake. Simple steps such as mowing in a direction away from the lake for just the first several strips can reduce this major phosphorus loading source for the lake and takes only minutes to accomplish.

### **Lake Management Recommendations:**

Lake Management Program recommendations for the upcoming fiscal year (FY1011) are:

- 1) **Continued monitoring of hydrilla (re-growth from tuber production),**
- 2) **Spot treatments of hydrilla if required,**
- 3) **Continued treatment of the invasive aquatic plants – herbicides,**
- 4) **Monitor/control/replant managed areas – herbicides (also algae control),**
- 5) **Future grass carp stockings if required,**
- 6) **Continue to increase number of shoreline re-vegetation sites (lakefront community),**
- 7) **Continue with review of street sweeping program,**
- 8) **Continue to increase educational outreach programs; i.e., Shoreline Restoration Workshops (planting days), Florida Yards and Neighborhoods (FYN), Lake Management Video mail-outs, and reduction of pointless personal pollution (contact Seminole County Lake Management Program, Gloria Eby, [407] 665-2439 for more information and assistance), and**
- 9) **Provide content for the Seminole County Water Atlas Lake Management webpage for Lake of the Woods (such as newsletters and community updates).**

LMP will continue to closely monitor and gauge hydrilla in Lake of the Woods. Even though there are minimal plants, hydrilla is unpredictable at best; therefore, close monitoring is key when managing hydrilla.

Hydrilla will deposit bulb like seeds (tubers) into the sediment which can remain viable for up to six years. Tubers are produced in each growing season and are used to perennialize the plant as a means of propagation (re-growth). Since Lake of the Woods was previously infested with hydrilla, many tubers were deposited in the lake bed during this time. Currently, there is a viable seed bank of tubers in the sediments within the lake. The recommendation for the management plan in Lake of the Woods is to integrate use of contact herbicides with grass carp fish, if necessary, to control this hydrilla re-growth from tubers.

LMP continues to recommend/encourage future resident-based volunteers involving native plantings along the shoreline. The intention of such an event is to transplant existing in-lake plants to various key areas in need along the shoreline. Residents should organize planting days coordinated with LMP aiding the residents in creating a beneficial shoreline for Lake of the Woods. It is especially important that as aquatic invasive plants (such as torpedo grass) are being treated, native aquatic plants should be established within these areas. This also provides habitat for fish and wildlife, helps impede invasive exotics from re-establishing and reduces sedimentation into the lake due to erosion of the shoreline. All of these best lake management practices are essential to providing a more environmentally stable lake for generations to come. The key to success in lake management projects is dependent on strong participation of the Lake of the Woods community.

## **Cost of Aquatic Weed Control**

### **Funding: FY October 2009 – September 2010**

1) \$ 18,403	Assessment Revenue [per early payment discount]
2) \$ 0	Reserve and Contingency (carry forward)
<u>\$ 18,403</u>	Total Revenue

#### Budgeted Expenditures:

1) \$ 3,885	Hydrilla at \$925/acre (treat 4.2 acres)
2) \$ 350	Hyacinths and Sedge
3) \$ 5,625	Torpedo Grass (9 months at \$625/mo)
4) \$ 2,037	Triploid Grass Carp
5) \$ 4,200	Loan and Interest Payment
6) \$ 1,000	Administrative Fee
7) \$ 1,306	Contingency Reserve (carried forward to next year if not required)
<u>\$ 18,403</u>	Total Expenses

### **Projected: FY October 2010 – September 2011**

#### Budgeted Revenue:

1) \$ 19,334	Assessment Revenue [per early payment discount]
2) \$ 1,306	Reserve and Contingency (carry forward)
<u>\$ 20,640</u>	Total Revenue

#### Budgeted Expenditures:

1) \$ 3,700	Hydrilla at \$925/acre (capped at 4 acres)
2) \$ 2,100	Hyacinths and Sedge (bi-monthly at \$350/ea)
3) \$ 5,625	Torpedo Grass (9 months at \$625/mo)
4) \$ 1,350	Algae Control (\$450 acre – capped at 3 acres)
5) \$ 5,600	Loan and Interest Payment
6) \$ 1,000	Administrative Fee
7) \$ 1,265	Contingency Reserve (carried forward to next year if not required)
<u>\$ 20,640</u>	Total Expenses

## **MSBU Background**

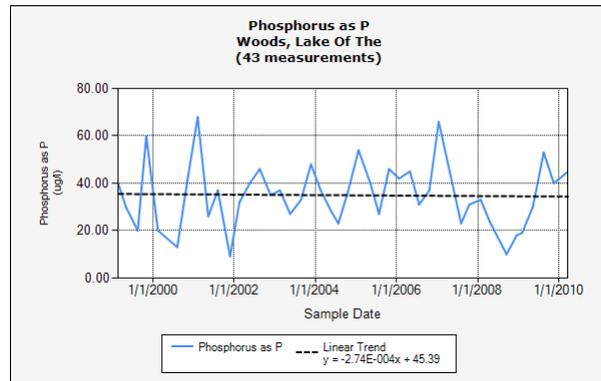
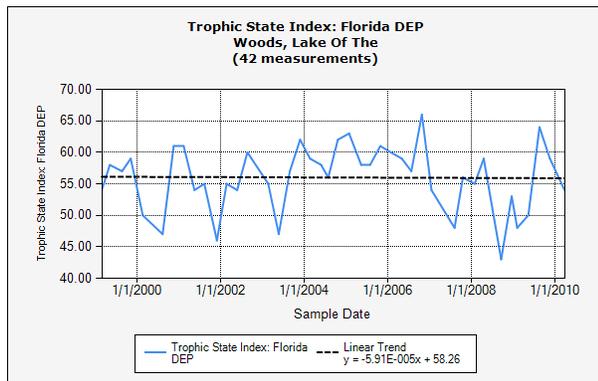
The Municipal Service Benefit Unit [MSBU] Program has provided Lake of the Woods property owners in unincorporated areas of Seminole County with an opportunity to acquire essential improvements or services for their community. An MSBU is a special assessment district created by the Seminole County Board of County Commissioners to supply funding through non-ad valorem assessments for such services or improvements that are authorized through the MSBU Program. At the request of the community of Lake of the Woods, the Lake of the Woods Aquatic Weed Control MSBU was created by Ordinance 09-14 on April 14, 2009 to provide aquatic weed control for Lake of the Woods.

Each year at the annual lake meeting lake conditions are reviewed. Working together, the community liaison members representing Lake of the Woods and County staff from both the Lake Management [LM] Program and the MSBU Program select several essential aquatic weed control activities for consideration during the forthcoming year.

**Lake of the Woods 2010 Water Quality Report: How Does My Lake Rank? 55 = GOOD**

The Trophic State Index (TSI) is a classification system designed to "rate" individual lakes, ponds and reservoirs based on the amount of biological productivity occurring in the water. Using the index, one can gain a quick idea about how productive a lake is by its assigned TSI number. A "Good" quality lake is one that meets all lake use criteria (swimmable, fishable and supports healthy habitat).

The two graphs below indicates nutrient levels (measured by TSI and/or Total Phosphorous [TP]) for your lake. A TSI score of 60 or above is considered impaired (or polluted) lake. For Lake of the Woods, there was a significant loading of TP in 2009 concurrent with a major storm event documented in May 2009. Reduction of TP sources (personal pollution, run-off, landscaping practices, shoreline erosion) can help reduce phosphorous in your lake that is abundantly available, potentially creating algae blooms.



You can find this information and much more at:

<http://www.seminole.wateratlas.usf.edu/lake/waterquality.asp?wbodyid=7686&wbodyatlas=lake>

**Lake Vegetation Index Bioassessment (LVI): How Does My Lake Rank? 42= Healthy**

The Lake Vegetation Index is a rapid bioassessment tool created by the Florida Department of Environmental Protection (FDEP) to assess the biological condition of aquatic plant communities in Florida lakes. The recent assessment for Lake of the Woods scores as **42 Category 2- Healthy** since inception of our lake management efforts in 2009.

<b>Aquatic life use category</b>	<b>LVI Range</b>	<b>Description</b>
Category 1 "exceptional"	78-100	Nearly every macrophyte present is a species native to Florida, invasive taxa typically not found. About 30% of taxa present are identified as sensitive to disturbance and most taxa have C of C values >5.
Category 2 "healthy"	38-77	About 85% of macrophyte taxa are native to Florida; invasive taxa present. Sensitive taxa have declined to about 15% and C of C values average about 5.
Category 3 "impaired"	0-37	About 70% of macrophyte taxa are native to Florida. Invasive taxa may represent up to 1/3 of total taxa. Less than 10% of the taxa are sensitive and C of C values of most taxa are <4.