

**Lake of the Woods MSBU
Report for Fiscal Year 2011-2012
October 1, 2011 through September 30, 2012
Lake Meeting Held: July 11, 2012**

County Staff: Gloria Eby, Thomas Calhoun, Carol Watral

Community Liaison: Kathy Hubbert

Purpose: To review prior year activities, current aquatic weed control status, communications, and lake management plans for the next fiscal year.

Routine updates of inspections/results are provided to the community liaison members via email. To be included in these updates, please notify Gloria Eby, Lake Management Program (LMP) Manager, at geby@seminolecountyfl.gov.

Annual Meeting Synopsis

The current and future fiscal year budgets were discussed. The annual non-ad valorem assessment will remain at \$380.00 for tax year 2012.

Lake of the Woods experienced a significant and rapid hydrilla growth this year and required a large scale, costly treatment. Impacts from Tropical Storm (TS) Debby resulted in reduced product concentrations and required an additional treatment. These treatments are detailed in the *Lake Management Activities* below. Additionally, TS Debby's rainfall and flow caused minor damage to the grass carp barrier which was promptly repaired.

Stocking of triploid grass carp fish has reached the number allowed by the permit from the Florida Fish and Wildlife Conservation Commission (FWC). The number of fish within the lake appears to have declined, most likely due to predation (i.e. otters) as there is a significant population of submersed aquatic plant growth. LMP will apply for an amended permit for additional fish, however, not until effects of the most recent stocking have been fully evaluated.

MSBU funding for treatment of eelgrass is not within the scope of the original MSBU ordinance. However, LMP continues to work with interested properties in their efforts to privately manage eelgrass corridors for their access. LMP emphasized that an FWC aquatic plant permit is required for any chemical (herbicide) use for aquatic weed control.

The question of future shoreline restorations was raised. No further planting events are scheduled as the existing plants from past restorations are quite healthy. However, future educational presentations will be targeted to the community by LMP with the assistance from the liaisons.

The liaison from the Lake of the Woods HOA questioned the growth of vegetation in the canal area near their property and also inquired regarding clearing out trees by the outfall area. LMP

will arrange an on-site meeting with the representative(s) of Lake of the Woods HOA to review this area.

LMP will supply and install “aquatic hitchhiker” signs at 3 Lake of the Woods boat ramps to remind everyone how critical it is to inspect their boat and trailer and to remove pieces of vegetation that may be “hitchhiking”. These signs are provided as they offer greater awareness to efforts that can reduced the spread of invasive and aggressive vegetation, such as hydrilla, in/out of the lake.

County Funding

While the MSBU assessment includes a nominal charge for administering the MSBU, the amount charged does not cover all the expenses incurred by the County on behalf of the waterfront property owners. Lake of the Woods is extensively monitored by LMP on a monthly basis to assess the aquatic plant growth. This includes oversight of the aquatic herbicide contract for the treatment of emergent non-native vegetation (such as torpedo grass) and floating lilies that may impede boat access. LMP provides continued evaluation of grass carp mortality and stocking rates, continued evaluation of the submersed aquatic plant species such as hydrilla, provides community updates on the status of all treatments and waterbody assessments, and provides watershed outreach/educational opportunities to the surrounding citizens. In addition, LMP offers free aquatic plant material (as available) for sponsored restoration events and local community volunteers coordinated through the county’s Seminole Education and Restoration Volunteer (SERV) Program. Many of the services provided by the LMP are made available to support community riparian stewardship without additional charges being assigned to the MSBU budget.

2011- 2012 Lake Management Activities

Routine monthly maintenance treatments for FY 2011-2012 were performed for eight months of the year (excluding October, January, February and September). Vegetation targeted included exotic torpedo grass, exotic water hyacinth, bur-head sedge, cattails, spot treating hydrilla, and keeping boat accesses open from lily overgrowth.

Minor damage to the carp barrier was repaired in January. Because of low water levels, no carp fish were in danger of escaping the lake. Subsequent damage to the barrier was observed after TS Debby and was repaired.

An on-site review meeting was held on March 29, 2012, with representatives from Seminole County, Florida Fish and Wildlife Conservation Commission, and a Liaison from the Lake of the Woods MSBU (Tim Hayes) to discuss how to address the aggressively growing hydrilla. A large-scale, full lake treatment for hydrilla was agreed upon and was completed on April 26, 2012, with the herbicide product Sonar Genesis. . A letter with an enclosure of detailed treatment information was mailed by the MSBU Program to all waterfront properties on April 11, 2012. An irrigation advisory/precaution was issued to the community via reverse 911 calls, email, and posted on the MSBU Program website. A second treatment was necessary in July due to reduced herbicide concentration as the result of TS Debby. An alternative herbicide product, Galleon, was applied July 29, 2012 which required no irrigation advisory/precautions. Effects from treatment are still being monitored and thus far have shown great impact on the hydrilla.

We continue to receive inquiries regarding eelgrass, a beneficial native plant that is impacting boating access. Please note eelgrass management is not currently funded through the MSBU assessment nor is it listed on the Seminole County aquatic weed control permit issued by the State (Florida Fish and Wildlife Conservation Commission [FWC]). Should an individual wish to reduce this plant, for individual recreation access only, you would need to contact Carl Greene with FWC at Carl.Greene@myfwc.com or (407) 858-6170 to obtain a free permit to do so.

Also continuing to be observed *on a routine basis*, grass clippings are being blown *directly* into the lake. 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.

Important to Note: *When herbicides are applied along the shoreline to invasive plants (such as torpedo grass), overspray onto adjacent desirable vegetation may occur. In order to avoid damage to desired vegetation, manual (by hand) removal (by property owner) of the undesirable species from among the desirable species is advised. If the invasive plants are removed by this method, spraying the area can be eliminated, thereby offering greater protection to the desirable species. The physical removal of /dead/decaying aquatic plant material will reduce the volume of decomposing vegetation on the lake bottom (muck layer) and will increase the success of the efforts to limit the re-growth of the invasive plants.*

Lake Management Recommendations:

Lake Management Program recommendations for the upcoming fiscal year (FY1213) are:

- 1) **Continued close monitoring of hydrilla (re-growth from tuber production),**
- 2) **Conduct spot treatments of hydrilla if required,**
- 3) **Continued treatment of the invasive aquatic plants – herbicides,**
- 4) **Monitor/control/replant managed areas,**
- 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) **Implement educational outreach programs i.e. Shoreline Restoration Workshops (planting days), Florida Yards and Neighborhoods (FYN) presentations, Lake Management Video mail-outs, and reduction of residential pollution by using low fertilizer use; phosphorous free fertilizers; keeping a functional shoreline with beneficial native aquatic plants; keeping grass clippings out of your storm drains leading to the lake. All these activities aid in protecting your lake! Contact Gloria Eby (407) 665-2439 or Marie Lackey (407) 665-2424 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, photos, and community updates).**

LMP will continue to closely monitor and gauge hydrilla in Lake of the Woods. Hydrilla deposits 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

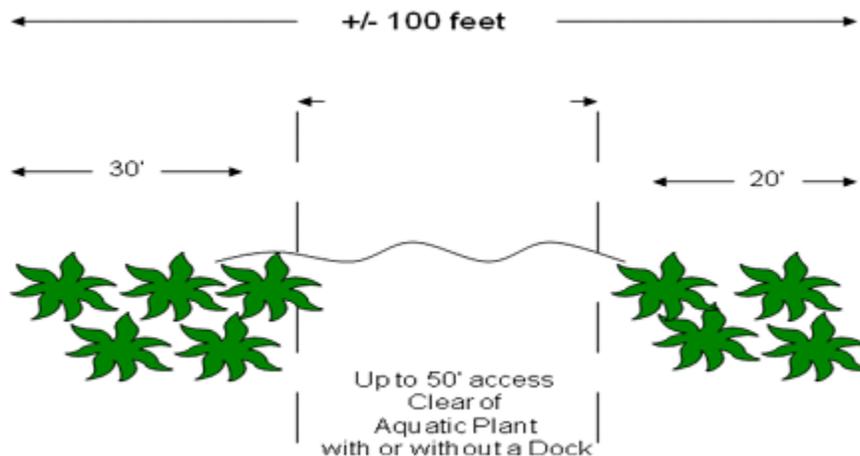
tubers were deposited in the lake bed during this time. The recommendation for the management plan in Lake of the Woods is to continue to integrate use of contact herbicides with grass carp fish to manage hydrilla re-growth from tubers.

LMP recommends/encourages homeowners to coordinate a resident-based volunteer event involving native plantings along the shoreline of Lake of the Woods. The intention of such an event is to plant beneficial native aquatic plants to key areas in need along the bank. Residents should organize planting days creating a beneficial shoreline. It is especially important that as the aquatic invasive plants (such as torpedo grass) are being treated, native aquatic plants should be established within these areas. The presence of the recommended native plant species along the shoreline provides habitat for fish and wildlife, helps impede invasive exotics from re-establishing and reduces erosion of the shoreline. All of these best management practices are essential to providing the conditions that promote an environmentally stable habitat to be enjoyed by generations to come. The key to success is dependent on strong participation of the Lake of the Woods community.

Suggestions for Lakeside Living with Eelgrass...A Balanced Approach

As previously suggested to several lakefront homeowners, what you can do is apply for or amend (if you already have one) your free FWC aquatic plant permit to allow for eelgrass removal for direct lakefront access. You are allowed this access corridor by State Statute for swimming/recreation purposes of up to 50 feet or 50% of your lake frontage, whichever is less; in most cases, for Lake of the Woods, it is limited to 50 feet. Below is an example of a typical 100 foot lakefront parcel illustrating a permitted access corridor for recreation. By retaining some portion of your shoreline with native aquatic plants and permitted portions that are managed (cleared), this provides a balanced approach for lakeside living.

Please note that the County is neither the permitting agency nor the funding source (via MSBU) for this type of activity. This would have to be individually achieved through your **free** aquatic plant permit by contacting your FWC regional biologist at 407-858-6170 or by e-mail at Ed.Harris@myfwc.com.



Cost of Aquatic Weed Control

The financial management goal of administering the Lake of the Woods Aquatic Weed Control MSBU is to assess property at a funding level that provides reasonable control for the aquatic weeds identified by permit in a manner that minimizes significant fluctuations in the assessment amount. Having funding reserves in place for times that require more extensive treatments assists in avoiding wide swings in rates and/or potential delays in essential treatment. The financial performance for FY 2011/2012 is as follows:

October 2011 – September 2012

Funding:

1)	\$19,360	Assessment Revenue [per early payment discount] + Interest
2)	\$ 4,935	Lake Management Contribution
3)	\$ 4,789	Lake Management Contribution
4)	\$ 3,992	MSBU Fund Advance
5)	<u>\$ 7,736</u>	Reserve and Contingency (beginning fund balance)
	<u>\$40,812</u>	Total Revenue

Expenditures:

1)	\$15,980	Hydrilla large scale treatment in April
2)	\$ 6,580	Hydrilla additional treatment in June
3)	\$ 8,782	Hydrilla additional treatment in July
4)	\$ 418	Triploid Grass Carp
5)	\$ 468	Hydrilla treatment (labor fee for applying product)
6)	\$ 5,625	Contracted Services (Torpedo grass - 8 months at \$625/mo)
7)	\$ 890	Barrier Cleaning and Repair
8)	\$ 1,000	County Administrative Fee
9)	<u>\$ 1,069</u>	Reserve and Contingency (carried forward to next year if not required)
	<u>\$40,812</u>	Total Expenditures

The budget projected for FY2012/2013 is as follows:

October 2012 – September 2013

Budgeted Revenue:

1) \$ 19,335	Assessment Revenue [per early payment discount]
2) <u>\$ 1,069</u>	Reserve and Contingency (beginning fund balance)
<u>\$ 20,404</u>	Total Revenue

Budgeted Expenditures:

1) \$ 3,700	Budgeted Hydrilla spot treatments
2) \$ 5,625	Contracted Services (Torpedo grass - 9 months at \$625/mo)
3) \$ 810	Barrier maintenance/repair
4) \$ 550	Labor – 10 hours
5) \$ 600	Budgeted Triploid Grass Carp Stocking
6) \$ 3,094	Installment Payment (Prior Fund Advance)
7) \$ 1,000	County Administrative Fee
8) <u>\$ 5,025</u>	Reserve and Contingency (carried forward to next year if not required)
<u>\$ 20,404</u>	Total Expenditures

Note: \$6,580.00 was advanced from MSBU Funds in FY 2011-2012 for the additional hydrilla treatment due to Tropical Storm Debby's dilution of herbicide. This will be repaid from Reserve and Contingency in FY 2013-2014.

MSBU Background

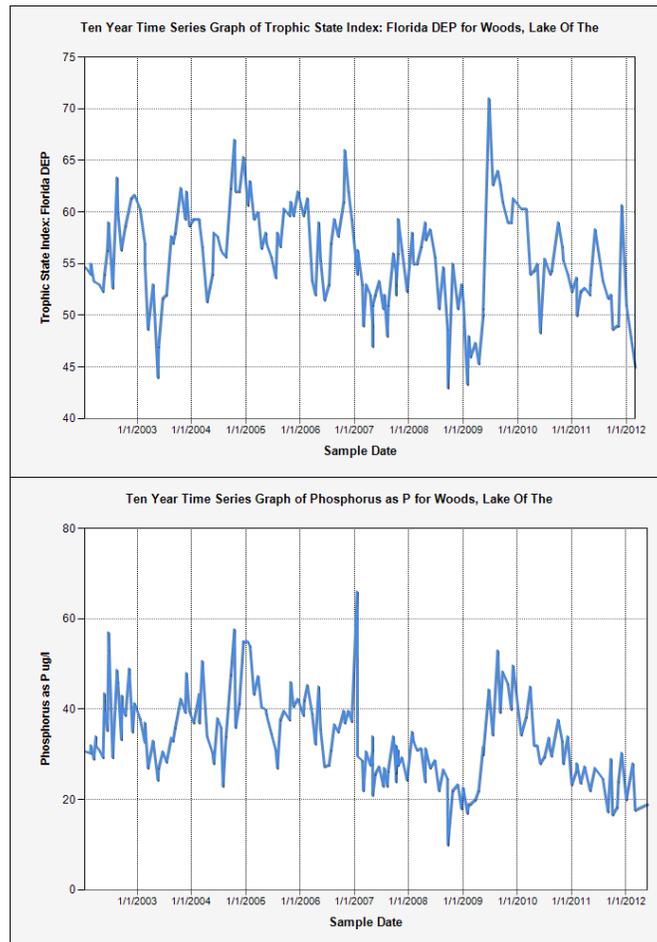
At the request of the community, the Lake of the Woods Aquatic Weed Control MSBU was created by Ordinance 09-14 on April 14, 2009 to provide assessment funding for lake management and aquatic weed control for Lake of the Woods.

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 2012 Water Quality Report: How Does the TSI of My Lake Rank?
45 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 indicate nutrient levels (measured by TSI and/or Total Phosphorous [TP]) for your lake. A TSI score of 60 or above is considered an impaired (or polluted) lake. 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? 51 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 the aquatic plant communities in Florida lakes. The August 1, 2012, LVI assessment score for Lake of the Woods was **51**. Lake of the Woods LVI scores ranges from 31 to 53 since inception of our lake management efforts in 2009. Hydrilla dominance plays a vital role in degrading the lake's LVI score as the April 1, 2012 assessment score was greatly reduced to **25 Impaired**. This

demonstrates an improvement in the LVI score by 26 points as result of hydrilla treatment/management.

Aquatic life use category	LVI Range	Description
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 that 10% of the taxa are sensitive and C of C values of most taxa are <4.

Lake of the Woods Inspections FY 2011-2012

Summary of the August 23 and September 4, 2012 inspections/reports: On September 4th and August 23rd, 2012, Seminole County Lake Management Program (SCLMP) Thomas Calhoun, Marie Lackey and FWC Regional Biologist, Carl Greene, surveyed the aquatic plants in Lake of the Woods. Hydrilla was found further impacted around the lake since the last inspection. Inshore the hydrilla has almost completely fallen out. In the deeper water, between 7 and 10 ft, hydrilla remains however, it was found further impacted by the treatment than the previous inspection. The 46 triploid (sterile) grass carp stocked in July 2012 should begin eating the remaining hydrilla in the deeper water. Hydrilla will continue to be closely monitored by county staff. There is an abundant and diverse amount of native submersed aquatic vegetation (SAV) observed in Lake of the Woods. These species includes eelgrass found to a depth of 8 ft, southern naiad to 8 ft, and coontail to 9 ft. Coontail was found to be expanding into deeper water around the lake. These plants will play an important role in competing for space with hydrilla, providing excellent habitat for many species, and improving the over health of your lake. Again, eelgrass was found blocking access to several boat docks. If you are having access issues due to eelgrass you can apply for an aquatic plant removal permit through the Florida Wildlife Conservation Commission <http://www.myfwc.com/license/aquatic-plants>. Some accesses have been successfully treated already. Torpedo grass continues to be treated by the MSBU funded herbicide contractor while native emergent vegetation continues to expand lake wide. Water hyacinth was not observed during this inspection. Secchi (water clarity) was 4.1 ft in a depth of 9.6 ft; an increase from last month's reading of 6.3 ft. The lake gauge was 74.78 ft above sea level. No triploid grass carp fish were observed during inspection.

Summary of the July 3 and 12, 2012 inspections/reports: On July 3 and 12, 2012, Seminole County Lake Management Program (SCLMP) surveyed the aquatic plants in Lake of the Woods. Due to Tropical Storm Debby, SCLMP sampled the lake in advance of schedule to determine the effects this storm event had on the hydrilla treatment plan. Concentrations of product were low therefore a 4th treatment was immediately scheduled and executed on July 19, 2012. No irrigation advisory was required for this treatment. Hydrilla was found further impacted around the lake. The inshore hydrilla has almost completely fallen out, however in the deeper water (between 7 and 10 ft) an abundance of healthy hydrilla remains. The July 19 treatment is specifically targeting hydrilla in deeper water. Lilly pads around the lake have been impacted due to the hydrilla treatments however will recover. On July 24, 2012, 46 sterile grass carp fish were stocked into Lake of the Woods. This stocking is to further aid hydrilla management efforts. With the native and exotic submersed plant growth present, mortality of these grass carp fish due to predation is evident. Also, as result of TS Debby, the barrier is requiring repairs which are underway to replace structural damage. The damage is not foreseen to allow fish to escape the system. In an effort to reduce transportation of exotics in/out of your lake, SCLMP will be installing 3 educational campaign signs at each of the boat ramps around Lake of the Woods. These signs will educate boaters on the potential of transporting nuisance species that can be costly to manage. There is an abundant amount of native submersed aquatic vegetation (SAV) in Lake of the Woods. These species included eelgrass found to a depth of 9 feet, southern naiad to 6 feet, stonewort to a depth of 4 feet., and coontail to a depth of 4 feet. If you are having access issues due to eelgrass you can apply for an aquatic plant removal permit through the Florida Wildlife Conservation Commission <http://www.myfwc.com/license/aquatic->

[plants](#) . Some access corridors have been successfully treated already. For those that have eelgrass treatments arranged but have been delayed due to the hydrilla treatment, you may continue with these efforts. Torpedo grass has been continued to be treated by the MSBU funded herbicide contract and native vegetation is expanding lake wide. No water hyacinth was observed during inspection. Secchi disk reading (measurement for water clarity) was 6.3 feet in a depth of 10.7 feet; an increase from last month's reading of 7.6 feet. The lake gauge was 74.9 feet above sea level at time of survey. No triploid grass carp fish were observed.

Summary of the March 6, 2012 inspections/reports: On March 6, 2012, Seminole County Lake Management Program (SCLMP) Gloria Eby, Thomas Calhoun (Assistant Scientist), Devon Whitney (student intern), and FWC Regional Biologist Carl Greene surveyed the aquatic plants on Lake of the Woods. Hydrilla was found very healthy and in large amounts in all areas of the lake except the southern portion. There is a significant increase in the amount of hydrilla plant coverage in the 6 to 12 foot depth range. The deepest that the plant was found was to a depth of 12 feet, which is an increase from the last inspection. Given the past summers' carp stocking of 104 fish (2 fish per acre), we will continue to monitor the hydrilla. Large scale hydrilla treatment may be warranted and/or additional grass carp stockings may be necessary. There is an abundant amount of native submersed aquatic vegetation (SAV) in the lake with eelgrass continuing to be the dominant species. Eelgrass is found to a depth of 7 feet and topped out in depths less than 5 feet. If you are having access issues due to eelgrass, you can apply for a free aquatic plant removal permit through the Florida Wildlife Conservation Commission <http://www.myfwc.com/license/aquatic-plants> . Some access corridors have been successfully treated already. Other SAV observed during the survey included: southern naiad to a depth of 8 feet and coontail to a depth of 3 feet. All species were found intermixed with the eelgrass and also intermixed on the deep side of the eelgrass. All of the SAV noted in this inspection has expanded since the previous inspection. Some of the native emergent aquatic plant populations (including pickerelweed, duck potato, fire flag and canna lily) are experiencing winter die back. These plant communities should return with spring. No water hyacinths were observed. Secchi (measurement for water clarity) was 5.2 feet in a depth of 12.9 feet; a decrease from 6.7 feet in February. The clarity was noted as exceptional for this inspection and can be correlated to native SAV and winter conditions decreasing algae production. Lake gauge was 74.64 feet above sea level. No triploid grass carp fish were observed.

Summary of the March 6, 2012 inspections/reports: On February 7, 2012 Seminole County Lake Management Program (SCLMP) Gloria Eby, Thomas Calhoun, Dean Barber, Devon Whitney, and FWC Regional Biologist Carl Greene surveyed the aquatic plants on Lake of the Woods. Hydrilla was found very healthy and in great amounts in all areas of the lake except the southern portion. There is a significant increase in the amount of hydrilla plant in the 6 to 8 foot depth range. The deepest the plant was found was to 11 feet which is a decrease from December's depth of 13 feet. With the past summers carp stocking of 104 fish, we will continue to monitoring the hydrilla. Some spot treatments for hydrilla may be warranted in shallow waters (less than 6 feet) and additional grass carp stockings may be necessary. There is an abundant amount of native submersed aquatic vegetation (SAV) in the lake with eelgrass continuing to be the dominant species. Eelgrass is found to a depth of 7 feet and topped out in depths less than 5 feet. If you are having access issues due to eelgrass you can apply for an aquatic plant removal permit through the Florida Wildlife Conservation Commission

<http://www.myfwc.com/license/aquatic-plants>. Some accesses have been successfully treated already. Other SAV observed during the survey included: southern naiad to a depth of 10 feet and coontail to a depth of 13 feet. All species were found intermixed within the eelgrass and also intermixed on the deep side of the eelgrass. All of the SAV noted in this inspection has expanded since the previous inspection. Some of the native emergent aquatic plant populations (including pickerelweed, duck potato, fire flag and canna lily) are experiencing winter die back. These plant communities should return with spring. No water hyacinths were observed. The grass carp barrier at the south end of the lake was inspected and found free and clear of debris. Secchi (measurement for water clarity) was 6.7 feet in a depth of 12.2 feet; an increase from 6.2 feet in December. The clarity was noted as exceptional for this inspection and can be correlated to native SAV and winter conditions decreasing algae production. Lake gauge was 74.51 feet above sea level. No triploid grass carp fish were observed

Summary of the March 6, 2012 inspections/reports: On February 7, 2012 Seminole County Lake Management Program (SCLMP) Gloria Eby, Thomas Calhoun, Dean Barber, Devon Whitney, and FWC Regional Biologist Carl Greene surveyed the aquatic plants on Lake of the Woods. Hydrilla was found very healthy and in great amounts in all areas of the lake except the southern portion. There is a significant increase in the amount of hydrilla plant in the 6 to 8 foot depth range. The deepest the plant was found was to 11 feet which is a decrease from December's depth of 13 feet. With the past summers carp stocking of 104 fish, we will continue to monitoring the hydrilla. Some spot treatments for hydrilla may be warranted in shallow waters (less than 6 feet) and additional grass carp stockings may be necessary. There is an abundant amount of native submersed aquatic vegetation (SAV) in the lake with eelgrass continuing to be the dominant species. Eelgrass is found to a depth of 7 feet and topped out in depths less than 5 feet. If you are having access issues due to eelgrass you can apply for an aquatic plant removal permit through the Florida Wildlife Conservation Commission <http://www.myfwc.com/license/aquatic-plants> . Some accesses have been successfully treated already. Other SAV observed during the survey included: southern naiad to a depth of 10 feet and coontail to a depth of 13 feet. All species were found intermixed within the eelgrass and also intermixed on the deep side of the eelgrass. All of the SAV noted in this inspection has expanded since the previous inspection. Some of the native emergent aquatic plant populations (including pickerelweed, duck potato, fire flag and canna lily) are experiencing winter die back. These plant communities should return with spring. Now is a great time to remove the treated torpedo grass that has been treated by the Seminole County herbicide contractor. This would allow the planted native species to expand. No water hyacinths were observed. The grass carp barrier at the south end of the lake was inspected and found free and clear of debris. Secchi (measurement for water clarity) was 6.7 feet in a depth of 12.2 feet; an increase from 6.2 feet in December. The clarity was noted as exceptional for this inspection and can be correlated to native SAV and winter conditions decreasing algae production. Lake gauge was 74.51 feet above sea level. No triploid grass carp fish were observed.

Summary of the March 6, 2012 inspections/reports: On December 8, Seminole County Lake Management Program (SCLMP) Gloria Eby, Thomas Calhoun, and Florida Wildlife Conservation Commission (FWC) Regional Biologist Carl Greene surveyed the aquatic plants in Lake of the Woods. Hydrilla was found very healthy and in great amounts along both sides of the lake. Currently, hydrilla is not impeding access in the shallow areas of the lake and does not

warrant a treatment, but it has expanded in the deeper areas around the lake to 13 feet (previous survey hydrilla was to 8 ft). Hydrilla in deeper water is very costly to treat as you need to apply more herbicide product due to greater water depths. With the May 2011 grass carp stocking of 104 fish, we will continue to keep monitoring the hydrilla looking for less biomass as result of predation and further re-evaluate carp stockings and treatment needs going into the spring months. There is an abundant amount of native submersed aquatic vegetation (SAV) in Lake of the Woods with eelgrass continuing to be the dominant species. Eelgrass is found to a depth of 7 ft and topped out in depths less than 3 ft. If you are having access issues due to eelgrass, you can apply for a free aquatic plant removal permit through the FWC at <http://www.myfwc.com/license/aquatic-plants> and treat your own access corridor. Please note this activity is not funded by the current MSBU. Several individuals have obtained their FWC permit and have successfully treated the eelgrass. Other SAV observed during the survey included: southern naiad to a depth of 7 feet, road grass to a depth of 8 feet, and coontail to a depth of 13 feet. All species were found intermixed within the eelgrass and also intermixed on the deep side of the eelgrass. Coontail has expanded since November's inspection. Most planted native emergent aquatic plant populations, especially pickerelweed and duck potato and canna lilies, are well established and look excellent. These desirable plant communities along with the Seminole County herbicide contractor treatments have significantly reduced the amount of invasive torpedo grass from previous years. No water hyacinths were observed. The grass carp barrier at the south end of the lake had been damaged by debris jamming up against it during a period of high flow. Repair of the barrier has been scheduled. Secchi (water clarity) was 6.2 feet in a depth of 17.5 feet. Lake gauge was 74.67 feet above sea level. One triploid grass carp fish was observed.

Summary of the March 6, 2012 inspections/reports: On November 8, Seminole County Lake Management Program (SCLMP) Gloria Eby and Thomas Calhoun surveyed the aquatic plants in Lake of the Woods. There is an abundant amount of native submersed aquatic vegetation (SAV) in Lake of the Woods with eelgrass continuing to be the dominant species. Eelgrass is found to a depth of 8 feet and topped out in depths less than 3 feet. Eelgrass is blocking access to several boat docks. If you are having access issues due to eelgrass, you can apply for a free aquatic plant removal permit through the Florida Wildlife Conservation Commission (FWC) <http://www.myfwc.com/license/aquatic-plants> and treat your own access corridor. Please note this activity is not funded by the current MSBU. Several individuals have obtained their FWC permit and successfully treated the eelgrass. Other SAV observed during the survey included: southern naiad to a depth of 8 feet, road grass to a depth of 6 feet, stonewort to 5 feet, coontail to a depth of 8 feet, and hydrilla to a depth of 8 feet. All species were found intermixed within the eelgrass and also intermixed on the deep side of the eelgrass. Hydrilla was found very healthy and in great amounts along both sides of the lake. Currently, hydrilla is not impeding access in the shallow areas of the lake and does not warrant an herbicide treatment. With the grass carp stocking of 104 fish in May 2011, we will continue to keep monitoring the hydrilla going into the winter months re-evaluating carp stockings and treatment needs. Most planted native emergent aquatic plant populations (especially pickerelweed, duck potato and canna lilies) are showing excellent new growth. These desirable plant communities along with the Seminole County herbicide contractor treatments have significantly reduced the amount of invasive torpedo grass from previous years. No water hyacinths or bur-head sedge were observed during this inspection. Secchi reading (water clarity measurement) was 7 feet in a depth of 11 feet. Lake

gauge was 74.80 feet above sea level. No triploid grass carp fish were observed during inspection.

Summary of the October 4, 2011 inspections/reports: On October 4, 2011, Seminole County Lake Management Program (SCLMP) Gloria Eby and Thomas Calhoun surveyed the aquatic plants on Lake of the Woods. There is an abundant amount of native submersed aquatic vegetation (SAV) in Lake of the Woods with eelgrass continuing to be the dominant species. Eelgrass (a plant not managed by the current MSBU) is found to a depth of 6 feet, restricting boat access in some areas, and topped out in depths less than 3 feet. Eelgrass flowering blooms were observed during inspection. These blooms can be confused as an algae bloom. If you are having access issues due to eelgrass, you can apply for a free aquatic plant removal permit through the Florida Fish and Wildlife Conservation Commission at <http://www.myfwc.com/license/aquatic-plants> or contact your FWC biologist, Carl Greene, at 407-858-6170 or Carl.Greene@MyFWC.com. Other SAV observed during the survey included: southern naiad to a depth of 8 feet, road grass to a depth of 6 feet, coontail to a depth of 6 feet, and hydrilla to a depth of 8 feet. All species were found intermixed within the eelgrass. Hydrilla was found very healthy and expanding along all sides of the lake. With the past summers' carp stocking of 104 fish, we will continue to keep monitoring the hydrilla growth going into the winter months gauging the next necessary treatment. The two native water lilies, spatterdock and fragrant water lily, are observed to be expanding around the lake. As per the Aquatic Plant Management Permit, Seminole County herbicide contractor will be treating up to 1 acre of spatterdock in places impeding access. Most planted native emergent aquatic plant populations, especially pickerelweed, duck potato and canna lilies, are showing excellent new growth. These desirable plant communities, along with the Seminole County herbicide contractor treatments, have significantly reduced the amount of invasive torpedo grass from previous years. No water hyacinths were observed. Secchi reading (a measurement for water clarity) was 4.1 feet in a depth of 14 feet. Lake gauge was 74.68 feet above sea level. No triploid grass carp fish were observed during this inspection.

