

**Horseshoe Lake (North) MSBU  
Report for Fiscal Year (FY) 2011-2012  
October 1, 2011 through September 30, 2012  
MSBU Lake Board Meeting Held: August 30, 2012**

**County Staff:** Gloria Eby, Thomas Calhoun, Carol Watral

**Community Liaisons:** Lee Harrison, David Kuketz, Patty Searcy (Kevin Brotz and Lisa Maguire not in attendance)

Purpose: To review status of waterbody management and to discuss with the liaison group the recommendations and plans for the next fiscal year. Note: Because this is a new Municipal Services Benefit Unit (MSBU), this report is for a partial year of June through September 2012.

**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](mailto:geby@seminolecountyfl.gov).**

**Annual Meeting Synopsis:**

The current FY budget/expenditures and the future FY budget were discussed. The initial annual non-ad valorem MSBU assessment for tax year 2012 is \$165.00 and will support the cost of aquatic maintenance and begin the development of reserve funds for future treatments.

Initial treatments began in July 2012 and were continued monthly through the fiscal year (through September 30, 2012). Beginning October 1<sup>st</sup>, 2012, (the new FY) treatments will be scheduled bi-monthly. The Horseshoe Lake (North) Advisory Board (LAB) has requested that LMP provide notification to a designated LAB representative prior to each future scheduled treatment. Herbicide contractor has been advised to contact Mrs. Searcy prior to each arrival; one day in advance.

Based on several emails received, LMP recommended electing one person to represent as spokesperson for the LAB to ensure communication is the consensus of the LAB. This filters issues as being pertinent to the LAB and not that of a property owner seated on the LAB. MSBU advised on the roles and responsibilities of LABs especially related to lines of communication. The LAB serves as a “go to” for the community bringing information/issues to the county and vice versa.

LMP provided recommendations regarding appropriate activities in relation to water bodies, such as not blowing yard trimmings into the lake when mowing, using phosphorous free and slow release nitrogen fertilizers and being mindful on fertilizer use in proximity to the lake (maintain a 25 foot buffer zone), and maintain conservation easements and buffer zones for parcels surrounding the lake. For properties with septic tanks, is important to inspect and maintain tanks every three to five years. Leaching/leaking tanks can be a significant source of nitrogen loading into the lake.

Encouragement by LMP was offered regarding formalizing the LAB through the State (Sunbiz - <http://www.sunbiz.org/index.html>) such as HOAs. Examples of existing successful lake boards were previously provided to the LAB by the MSBU Program office along with contact information.

LMP also encouraged strong stewardship practices via cooperation additional educational resources such programs as Florida Yards and Neighborhoods (Phone: (407) 665-5575 or [fyn@seminolecountyfl.gov](mailto:fyn@seminolecountyfl.gov)). An additional valuable resource is the Seminole County Seminole Education, Restoration and Volunteer (SERV) Program (Phone: (407) 665-2457, E-Mail: [serv@seminolecountyfl.gov](mailto:serv@seminolecountyfl.gov)).

LAB advised that free plant material is available once per year through Orlando Wetlands (<http://nbbd.com/godo/orlandowetlands/>). LMP advised to inspect each plant, as such material can carry “aquatic hitchhikers” containing exotic, invasive plants among the desirable native plants (such as hydrilla).

LMP will be meeting on-site at the next lake inspection (September 19, 2012) with interested properties regarding existing shoreline plants and potential future planting sites for the upcoming restoration event scheduled for July 13, 2013. LMP requested for the LAB to provide a finalized list of properties/locations to be included in the 2013 shoreline restoration event and reiterated the importance of a healthy shoreline.

LMP and members of LAB discussed current scope of work regarding herbicide treatments and cost comparison to competitor vendors. MSBU advised of the county’s procurement process in vendor selection and current vendor’s extensive experience and credentials in aquatic weed control within the state of Florida.

LMP advised that quarterly water quality monitoring is now being conducted on Horseshoe Lake (North) as part of being a MSBU lake. This data, as well as the valuable LAKEWATCH data, can be found online. LMP expressed KUDOS to Mrs. Searcy for participating in the LAKEWATCH program and providing notes for the last meeting LMP was involved in.

LMP also advised that it conducts routine lake assessments (monthly to bi-monthly) in which technical and biological information and recommendations are provided to the lake community at no additional cost to the MSBU funds (detailed budget provided in **Cost of Aquatic Weed Control** section).

LAB members discussed nutrient sources and water quality data. LMP provided that limited data is currently available and more data is needed to be able to conduct trend analysis. Additionally, some of the nutrient loading (such as wetland function and inflow points) would require a hydrologic and nutrient study of which is not within the MSBU funding assessments nor currently available for funding through the county.

The next scheduled MSBU Lake Board meeting will tentatively be scheduled for late January to mid February, 2013.

## **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. Howell Creek is monitored by LMP to assess the aquatic plant growth. LMP provides continued evaluation of the aquatic plant species, such as hydrilla, and provides community updates on the status of all treatments and waterbody assessments. 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 (partial year July 2012 through September 2012):**

**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.*

The routine MSBU funded herbicide treatments for Horseshoe Lake (North) began Thursday, July 12, and are performed by an approved Seminole County vendor. LMP will be conducting monthly inspections for the remainder of this fiscal year (until September 30, 2012) and upon each inspection we will be sending an email update to the email distribution list shortly thereafter. Bi-monthly inspections will begin with the new FY (October 1, 2012 through September 30, 2013).

The second scheduled LMP site visit was completed August 1, 2012 with two LAB members present. Purpose of this meeting was to address questions/concerns these LAB members had. Notes from this meeting are provided below. No formal lake inspection was conducted other than an overview of the scope of services for aquatic weed control and addressing the questions from LAB members present.

An on-site review meeting was held in conjunction with conducting an aquatic plant survey from 1:30 pm to 3:00 pm Wednesday, September 20, 2012. (Survey was limited by approaching rain storm). Attendees included:

### **Community Liaisons:**

Patty Searcy  
Lisa Maguire  
Kevin Brotz

Leza Harrison  
David Kuketz

Seminole County LMP Staff:  
Thomas Calhoun (Lake Management Coordinator)  
Devin Whitney (Water Quality Intern)

Topics during the meeting included:

- Seminole County water quality sampling.
- Seven Florida Fish and Wildlife Conservation (FWC) permitted invasive exotic plants and potential impacts these plants could have on the lake.
- Details of the lake restoration event scheduled for July 14, 2013, and the benefits of healthy native aquatic vegetation.
- Erosion issues and bank stability.

Additionally, as part of continued interest in MSBU waterbodies, Seminole County's Water Quality Program has started to sample the lake on a quarterly basis for chemical analysis such as nitrogen, phosphorous, chlorophyll, dissolved oxygen, and many other important parameters. This information, once processed, will be available on-line on our Atlas at:

<http://www.seminole.wateratlas.usf.edu/lake/waterquality.asp?wbodyid=7576&wbodyatlas=lake>

Separate from Seminole County lake management activities, the Horseshoe Lake (North) community has formed a Lake Advisory Board. This group will serve as the liaisons between the Horseshoe Lake (North) community and Seminole County. If at any time you have questions or concerns, we encourage you to contact your Horseshoe Lake (North) MSBU liaison(s), as they are available to respond to lake related questions/concerns. Participants on the Lake Advisory Board are:

Kevin Brotz	255 West 6th St, Chuluota	
Lee Harrison	310 West 8th St, Chuluota	skileza@aol.com
David Kuketz	4072 Live Oak Reserve Blvd, Oviedo	
Lisa Maguire	4048 Live Oak Reserve Blvd, Oviedo	lisamaguire@cfl.rr.com
Patty Searcy	308 West 11th St, Chuluota	steveandpatty1@att.net

### **Lake Management Recommendations:**

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

- 1) **Continued aquatic herbicide maintenance for non-native/invasive vegetation,**
- 2) **Conduct shoreline re-vegetation with native emergent plants (by the lakefront community and potentially volunteers),**
- 3) **Establishing a formal Lake Association holding at least one annual meeting with topics relevant to you lake,**
- 4) **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 residential pollution. Contact Seminole County Lake Management Program, 665-2439, for more information and assistance,**

- 5) **Provide content for the Seminole County Water Atlas Lake Management webpage for Horseshoe Lake (North) (such as newsletters and community updates)**

LMP recommends/encourages homeowners to coordinate a resident-based volunteer event involving native plantings along the shoreline of Horseshoe Lake (North). 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 Horseshoe Lake community.

### **Cost of Aquatic Weed Control**

The financial management goal of administering the Horseshoe Lake (North) Aquatic Weed Control MSBU is to assess property at a funding level that provides reasonable control for aquatic weeds in a manner that minimizes significant fluctuations in the assessment amount. Having reserves in place for years that require more extensive treatments (such as potential whole-lake treatments) assists in avoiding wide swings in rates and/or potential delays in essential treatment.

The financial performance for FY2011-2012 (partial year) was as follows:

### **July 2012 – September 2012**

#### *Revenue:*

- |                    |   |
|--------------------|---|
| 1) \$ 0            | Assessment Revenue [per early payment discount] + Interest        |
| 2) \$ 2,275        | MSBU Fund Advance (to be repaid in FY 2012-2013 and FY 2013-2014) |
| 3) <u>\$ 0</u>     | Reserve and Contingency (beginning fund balance)                  |
| 4) <u>\$ 2,275</u> | Total Revenue   |

#### *Expenditures:*

- |                 |  |
|-----------------|--|
| 1) \$ 1,875     | Contracted Services (monthly maintenance – July, Aug, Sept)        |
| 2) \$ 400       | County Administrative Fee  |
| 3) <u>\$ 0</u>  | Contingency Reserve (carried forward to next year if not required) |
| <u>\$ 2,275</u> | Total Expenditures   |

The budget projected for FY2012-2013 is as follows:

**October 2012 – September 2013**

*Budgeted Revenue:*

- 1) \$ 7,920 Assessment Revenue [per early payment discount]
- 2) \$ 0 MSBU Fund Advance (to be repaid in FY 2014-2015)
- 3) \$ 0 Reserve and Contingency (carry forward from prior year)
- 4) \$ 7,920 Total Revenue

*Budgeted Expenditures:*

- 1) \$ 3,750 Contracted Services (bi-monthly maintenance at \$625.00 per treatment)
- 2) \$ 750 Additional Product and/or Labor
- 3) \$ 1,200 County Administrative Fee
- 4) \$ 550 Adjustment for Application Fee
- 5) \$ 1,600 Loan and Interest Payment
- 6) \$ 70 Contingency Reserve (carried forward to next year if not required)
- \$ 7,920 Total Expenditures

**MSBU Background**

At the request of this waterfront community, the Horseshoe Lake (North) Aquatic Weed Control MSBU was created by Seminole County Ordinance 2012-15 on June 26, 2012, to provide assessment funding for lake management and aquatic weed control for Horseshoe Lake (North). There are also waterfront properties serving to benefit from aquatic weed control improvements that are located within the taxing district of the City of Oviedo. The City Council of Oviedo confirmed support for the MSBU via execution of City Ordinance 1543 and by signature on an Interlocal Agreement between Seminole County and the City of Oviedo (effective June 26, 2012).

Going forward, each year at a lake meeting with the liaisons (LAB) and Seminole County, lake conditions will be reviewed. Working together, the community liaison members representing Horseshoe Lake (North) and county staff from both Lake Management [LM] Program and MSBU Program select several essential aquatic weed control activities for consideration during the forthcoming year.

## **Horseshoe Lake North Inspections FY 2011-2012**

**Summary of the September 19, 2012 inspection/report:** On September 19<sup>th</sup>, 2012 Seminole County Lake Management Program (SCLMP) Thomas Calhoun (Lake Management Coordinator), Devin Whitney (Water Quality Intern) and the North Horseshoe Lake liaisons surveyed the aquatic plants in North Horseshoe Lake. The submersed aquatic vegetation (SAV) found included; road grass (*Eleocharis baldwinii*) to a depth of 6 ft and baby's tears (*Micranthemum umbrosum*) to a depth of 1ft. The coverage of SAV in North Horseshoe Lake is very small. SAV plays an important role in aquatic ecosystems by maintaining water quality and providing habitat for wildlife and fish. The FWC recommends at least 30% of SAV coverage for prime game fish habitat. Exotic (not native to the place where found) invasives found during the inspection included; alligator weed (*Alternanthera philoxeroides*), wild taro (*Colocasia esculenta*), torpedo grass (*Panicum repens*) and Cuban burhead sedge (*Scirpus cubensis*). The floating plant hyacinth was not found during the inspection. The Seminole County herbicide applicator will continue to target these plants unless otherwise notified. The first North Horseshoe Lake Shoreline Restoration Event is scheduled for Saturday, July 14<sup>th</sup> 2013 from 9am-1pm. On this date, the Seminole County Lake Management and SERV Programs will bring in community volunteers and beautiful FREE aquatic plants to plant along designated shorelines to help improve the water quality of your lake. We are always looking for volunteer sites, so if you are interested in becoming a designated site, please contact me for further details. Secchi (water clarity) was not taken due to bad weather. The lake gauge was 37.31 feet above sea level at the time of inspection. This information and much more can be found by visiting <http://www.seminole.wateratlas.usf.edu/>

**Summary of the July 3, 2012 inspection/report:** Email distributed by LAB: Lake Review on North Horseshoe Lake: 1 Aug at 0830 (Gloria Eby/Thomas Calhoun—Seminole County biologist/lake management coordinator and Kevin Brotz/Patty Searcy—Advisory Board members). Discussed Lakewatch water sample data in general terms; to give a more detailed analysis, more data is required. Phosphorous and Nitrogen seem a bit high and possible areas to think about are fertilizer use and proper septic tank maintenance. Continue to educate everyone to keep fertilizer runoff in abeyance and septic tanks should be pumped every 3-5 years. The required St Johns River Water Management District buffer zones, berming near lakefront, and native plants are useful watershed tools to help mitigate runoff and buffer nutrients entering the lake.

South Horseshoe Lake is a TMDL lake (total maximum daily load, or in layman's terms impaired and of concern) and Dept of Environmental Protection is watching (South Horseshoe Lake waters feed into North Horseshoe, so has direct bearing on our lake).

The current contractor is Applied Aquatic Management and our rep is Chad. AAM is one of the top ten in the state. AAM schedules North Horseshoe during the third week of the month. As Kevin stated earlier, Gloria believes after the first few weed treatments (which will be monthly for July, August, and September), we will scale back spraying activities in the new county fiscal year (which starts October 1<sup>st</sup>) to bi-monthly. Given time, reduction in services could be

anticipated (thereby saving cost) and is the goal for the fiscal year starting October 2013. This is dependent on the aquatic growth and response to herbicides.

Discussed planting event. North Horseshoe Lake in on the books for July 2013 (but if an opening becomes available we could be as early as April). Note that the planting event is at no cost to our MSBU fund. We are all encouraged to plant native species on our own to prevent erosion which is of great concern as the first spraying has knocked back a good deal of invasive weeds. Kevin offered to pick up plants for us since he was going to nursery sometime soon. Some recommendations for tall plants to provide cover to fish that were discussed were Maidencane (1 gal size), Thalia, Sawgrass, and Bullrush.

Kevin also provided nursery sources:

Biospheres Nursery in Winter Garden: BIOSPHERE CONSULTING, INC. 14908 Tilden Road, Winter Garden, FL 34787, TEL: 407-656-8277, <http://www.biospherenursery.com/>

Green Images Nursery in Christmas (call them to see if they have in stock prior to going): 1333 Taylor Creek Rd, Christmas, FL 32709, (407) 568-1333

Open action items:

Ensure Seminole County has a complete list of property owner email addresses

Partner with Biologist and Florida Yards and Neighborhoods (part of extension service) for education opportunities

Finalize planting date with Gloria

**Summary of the July 12, 2012 inspection/report:** Email distributed by LMP: The routine MSBU funded herbicide treatments for Horseshoe Lake (North) will begin this Thursday, July 12 (weather and boat access permitting). Lake Management Program will be conducting monthly inspections for the remainder of the fiscal year (until September 30th, 2012) and upon each inspection we will be sending an email update to this distribution list shortly thereafter. Upon the new fiscal year (October 1st, 2012), the lake will be inspected on a bi-monthly basis. If you wish to not be included in these informative email updates, please email me to remove you from the current distribution list.

Additionally, as part of continued interest in MSBU waterbodies, Seminole County's Water Quality Program has started to sample the lake on a quarterly basis for chemical analysis such as nitrogen, phosphorous, chlorophyll, dissolved oxygen and many other important parameters. This information, once processed, will be available on-line on our Atlas at:

<http://www.seminole.wateratlas.usf.edu/lake/waterquality.asp?wbodyid=7576&wbodyatlas=lake>

Currently, data from the LAKEWATCH samples are available for viewing. The monthly LAKEWATCH samples in conjunction with the quarterly Water Quality Program samples will all be valuable data collected for your lake.

