

**February 3, 2016**

**MYRTLE LAKE  
LAKE MANAGEMENT PLAN**

Annual Meeting – 2016

- Agenda

Lake Management Plan

- General Provisions & Scope of Services
- Community-Based Activities & Events
- Current Fiscal Year
  - Planned Treatments & Funding
- Next Fiscal Year
  - Projected Treatments & Funding
- Exhibits
  - Agenda & Notes (Prior Year)
  - Budget & Financial Summary
  - Historic Reports/Data
  - Roles & Responsibilities

# MYRTLE LAKE

## ANNUAL MEETING

Date, Time & Location	:	February 3, 2016 10:00 a.m., 200 W. County Home Rd – LMP Office
Community Liaisons	:	Dave Crowder, Lindy Freeman, Gretchen Hobkirk, and Gabriela Murza
Liaisons Present	:	Lindy Freeman, Gretchen Hobkirk, and Gabriela Murza
Seminole County	:	Thomas Calhoun, Joey Cordell, Gloria Eby, and Kathy Moore

### **Topics carried forward from prior fiscal year activity** [Meeting Notes]

- Fertilizer Ordinance & Shoreline Protection Ordinance
  - Documents developed and undergoing preliminary review and consideration prior to presentation to Board of County Commissioners. Targeting to present to BCC within next several months.

### **General Topics & Updates**

- Planting event 2016
  - To be coordinated via Thomas Calhoun
  - Dates in fall preferred; request yellow and purple flowering plants is available
  - Thomas to provide feedback as to whether or not trees [specifically Cypress] can be purchased for the event; and/or if they could be offered for private purchase with planting at event
- Plans for current fiscal year
  - Refer to Page 5 - Monthly services (8 total)
  - Treatment to skip either October or November; skip December-February, then treat March-September
  - Request pushing further north (with broader width) in canal area as enabled by higher water level
  - Budget Exhibit B – Assessment increase from \$265.00 to \$290.00 to provide revenue to cover 8 treatments per year; assessment cap is \$375.00 and max increase per year is \$25.00
  - Discussed consideration to approach City of Longwood for financial contribution for City “park” located on south end of MSBU boundary; parcel information to be emailed to Gabby Murza for liaison review
- Projections for next fiscal year
  - Refer to Page 5
- General recommendations for community consideration
  - Refer to Page 4

# MYRTLE LAKE LAKE MANAGEMENT PLAN

## GENERAL PROVISIONS

### **Scope of Public Aquatic Weed/Plant Control [AWC] Services**

The scope of public aquatic weed control [AWC] services funded by non-ad-valorem assessment includes those services associated with managing aquatic plant communities as deemed beneficial and/or critical to restoring, developing and/or maintaining conditions that enhance the water quality and over-all health of the waterbody; with emphasis on providing public services for public purposes which by definition of public are limited to the waterbody and respective shoreline when/where noxious and/or invasive exotic vegetation could/would threaten or impede the waterbody.

### **Governing Documents**

- Seminole County Ordinance 10-18
- FWC permit

### **Methods for Aquatic Weed Control as authorized via County Ordinance/Resolution**

- Chemical (herbicides)
- Biological (sterile triploid grass carp fish [TGC])
- Mechanical (harvesting, cutting, etc.)

### **Targeted Invasive/Exotic Aquatic Vegetation**

Hydrilla, southern naiad, water hyacinth, torpedo grass, primrose willow, water lily, wild taro, cattail, barnyard grass, and salvinia.

### **Frequency of AWC Treatment**

AWC services are performed at the direction of the Seminole County LMP as per the Myrtle Lake Management Plan reviewed at the annual planning session with the expectation that the Seminole County LMP may alter anticipated treatments as merited per changing/evolving conditions noted during site inspections.

### **Herbicide Treatments - Service Provider**

- As determined by Seminole County

### **Funding**

Assessment rate may vary annually based on financial demands of changing conditions, such as cost of herbicide treatments, frequency of treatments, and other factors impacting assessment calculations. Per the governing ordinance, the annual assessment is capped at \$375.00, and the annual increase in any given year is limited to a maximum of \$25.00.

### **Lake Liaisons**

Designated property owners (or their designated representatives) provide community representation at annual planning sessions with the County and serve voluntarily as the key point of contact for community inquiries and concerns. The liaisons for Myrtle Lake are: Dave Crowder ([Dave@DCrowder.com](mailto:Dave@DCrowder.com)), Lindy

Freeman ([lindyf@msn.com](mailto:lindyf@msn.com)), Gretchen Hobkirk ([ghobkirk@cfl.rr.com](mailto:ghobkirk@cfl.rr.com)) and Gabriela Murza ([gmurza@yahoo.com](mailto:gmurza@yahoo.com)).

## **COMMUNITY-BASED ACTIVITIES & EVENTS**

LMP recommends/encourages homeowners to coordinate a resident-based volunteer event involving native plantings along the shoreline of Myrtle Lake. 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 Myrtle Lake community. Continued recommendations for community initiatives are as follows:

- 1) Work together with other lakefront owners. Have *at least* one annual lake association meeting, invite guest speakers (such as county or state biologists) and discuss lake specific issues, especially nutrients/lake management recommendations. Continue to increase native aquatic plantings along shoreline (such as pickerelweed, duck potato, and canna).
- 2) Increase educational outreach programs i.e. Shoreline Restoration Workshops (planting days), Florida Yards and Neighborhoods (FYN), Lake Management Video mail-outs, and reduction of personal pollution by decreasing fertilizer usage; using only phosphorous free and slow release nitrogen based fertilizers; keeping a functional shoreline with beneficial native aquatic plants; keeping grass clippings out of your lake and storm drains leading to the lake. All these activities aid in protecting your waterbody! Contact Seminole County Lake Management Program (407) 665-2439 for free educational programs available.
- 3) Recommend removing Island apple snail egg clusters and adults from the waterbody when possible.
- 4) Share what YOU know with your neighbors! Encourage fellow residents to keep a functional shoreline with beneficial native aquatic plants, and to keep grass clippings out of the storm drains that lead to the lake. All of these activities aid in protecting your waterbody! Please share newsletter with any new residents or those not currently on our email list.

**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 reduced, 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.

## **COUNTY SERVICES – Lake Management & Supplemental Programs**

Myrtle Lake 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. 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. 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.

## **CURRENT FISCAL YEAR – Planned Treatment & Funding**

### **Primary Aquatic Plant Management Expectations**

Fluctuating lake levels continue to present treatment challenges for invasive emergent aquatic plants during low level conditions which prohibit airboat access in certain areas for herbicide application. LMP schedules treatments based on their routine inspections, confirmed status of the lake needs, and best professional lake management practices. LMP continues to encourage mowing of areas where low level of water presents the opportunity to do so (such as dry lake bed). This assists in minimizing excessive invasive plant material growth and reduces treatment dependency/costs for when the lake level normalizes. The current level of non-ad valorem assessment does not provide funding for large scale submersed vegetation treatments. Consider supplemental funding to address these needs.

Primary expectations for year are as follows:

- 1) Aquatic herbicide maintenance (8 months budgeted) for non-native vegetation skipping the months of December-March (slower growing season) and conducting supplemental treatments (as needed and budgeted)
- 2) Reduce biomass of lilies to increase water circulation and flow in stagnant areas
- 3) Continued monitoring of hydrilla, other submersed aquatic plants, and grass carp fish effects

### **Funding Expectations**

*Refer to current fiscal year budget data provided in Exhibit B.*

## **NEXT FISCAL YEAR – Projected Treatment & Funding**

### **Primary Aquatic Plant Management Expectations**

The projected treatment plans for the next fiscal year remain consistent with the plans and expectations noted for the current fiscal year. Primary expectations are as follows:

- 1) Continued aquatic herbicide maintenance (8 months budgeted) for non-native vegetation skipping the months of December-March (slower growing season) and conducting supplemental treatments (as needed and budgeted)
- 2) Reduce biomass of lilies to increase water circulation and flow in stagnant areas
- 3) Continued monitoring of hydrilla, other submersed aquatic plants, and grass carp fish effects
- 4) Future grass carp stockings if deemed necessary, pending permit amendment

### **Funding Expectations**

*Refer to next fiscal year budget data provided in Exhibit B.*

## **Exhibits**

**A** – Notes from Prior Year Planning Session

**B** – Budget/Financial Overview

**C** – Historic Reports/Data

**D** – Roles & Responsibilities

## Exhibit A – Agenda & Notes (Prior Year Planning Session)

### ANNUAL MEETING

Date, Time & Location	:	January 16, 2015, 2:30 p.m., 200 W. County Home Rd – LMP Office
Community Liaisons	:	Dave Crowder, Lindy Freeman, Gretchen Hobkirk, and Gabriela Murza
Liaisons Present	:	
Seminole County	:	Gloria Eby and Carol Watral

#### **Topics carried forward from prior fiscal year activity**

- County encourages additional shoreline restoration activities (planting native aquatic plants).
- Exotic Island Apple Snails – It is recommended to remove Island apple snail egg clusters and adults from the waterbody when possible.
- Residents should mow (or have their maintenance services mow) vegetation where/when the lake is experiencing unwanted invasive vegetation due to drought/draw-down conditions.
- Maintenance treatments were performed on an as-needed basis per determination of the Seminole County Lake Management Program (LMP), in conjunction with liaison input, when the treatment would provide the best response to the fluctuating lake conditions.
- Late April a “Summertime Kill” of fish occurred caused by low dissolved oxygen due to high respiration and decomposition in eutrophic ponds and lakes. Treatment was altered by the contractor to accommodate this phenomenon.
- Aquatic weed control permit was submitted for renewal.
- Property owners should be encouraged to communicate comments/concerns through the liaison group, who will provide consolidated request/comments to the MSBU Project Manager (Carol Watral).

#### **General Topics & Updates**

- Managing aquatic systems during lake draw-downs/Role of water elevation
- Northeast canal
- Wildlife spoil islands
- Discuss 2015 planting event
- Plans for current fiscal year
- Projections for next fiscal year
- General recommendations for community consideration

#### **Meeting Notes:**

- Liaisons requested Steve Mikesell be removed from the formal liaison list
- Number of treatments for past 3 fiscal years discussed; MSBU providing invoice copies to liaisons
- Treatments for the balance of FY14/15 will be monthly March through the end of August
- FWC Permit renewal was issued
  - We have a new FWC regional biologist, Kris Campbell, at 6830 Shadowridge Dr., Suite 201, Orlando, FL 32812, 407-858-6170
- No indication at this time that grass carp fish are required to be stocked
- Progress of County fertilizer ordinance was discussed
- April 4, 2015 planting restoration event:
  - LMP needs to order plants by mid-March
  - Liaisons are to provide minimum of 6 planting sites
  - Liaisons requested also cleaning out areas such as the canal, but LMP explained that restoration of areas is the target of the planting restoration events



## Exhibit B - Budget/Financial Overview

MSBU: LAKE MYRTLE

Date: January 1, 2016

Tax Year	2013	2014	2015	2016
Assessment	\$245.00	\$265.00	\$265.00	\$290.00
Fiscal Year	FY13-14	FY14-15	FY15-16	FY16-17
<b>REVENUE</b>				
	<b>Actual</b>	<b>Actual</b>	<b>Working Budget</b>	<b>Projected Budget</b>
Beginning Fund Balance	\$ 4,383	\$ 3,683	\$ 3,295	\$ 2,604
Assessments	\$ 6,159	\$ 6,649	\$ 6,614	\$ 7,238
Other	\$ 16	\$ 18	\$ 10	\$ 10
MSBU Program Fund Advance	\$ -	\$ -	\$ -	\$ -
<b>TOTAL</b>	<b>\$ 10,558</b>	<b>\$ 10,350</b>	<b>\$ 9,919</b>	<b>\$ 9,853</b>
Cost Sharing				
Lake Management Program	\$ 10,558	\$ 10,350	\$ 9,919	\$ 9,853
<b>TOTAL</b>				
<b>EXPENDITURE</b>				
	<b>Actual</b>	<b>Actual</b>	<b>Working Budget</b>	<b>Projected Budget</b>
County Administrative Fee	\$ 875	\$ 1,075	\$ 1,075	\$ 1,075
Fund Advance Repayment	\$ 540	\$ 520	\$ -	\$ -
Contracted Services	\$ 5,460	\$ 5,460	\$ 6,240	\$ 6,240
<i>Routine Services</i>	\$ 5,460	\$ 5,460	\$ 6,240	\$ 6,240
<i>Algae</i>	\$ -	\$ -	\$ -	\$ -
<i>Hydrilla</i>	\$ -	\$ -	\$ -	\$ -
<i>Submersed</i>	\$ -	\$ -	\$ -	\$ -
<i>Labor</i>	\$ -	\$ -	\$ -	\$ -
<i>Other</i>	\$ -	\$ -	\$ -	\$ -
Contingency Reserve	\$ 3,683	\$ 3,295	\$ 2,604	\$ 2,538
<b>TOTAL</b>	<b>\$ 10,558</b>	<b>\$ 10,350</b>	<b>\$ 9,919</b>	<b>\$ 9,853</b>
Cost Sharing				
Lake Management Program	\$ -	\$ -	\$ -	\$ -
<b>TOTAL</b>	<b>\$ 10,558</b>	<b>\$ 10,350</b>	<b>\$ 9,919</b>	<b>\$ 9,853</b>
				\$ -
Fund Advance BB	\$ 1,000	\$ 500	\$ -	\$ -
Payment	\$ 500	\$ 500	\$ -	\$ -
Fund Advance EB	\$ 500	\$ -	\$ -	\$ -

## Exhibit C - Historic Reports/Data

Additional information for Myrtle Lake can be found on the Seminole County Water Atlas website at:

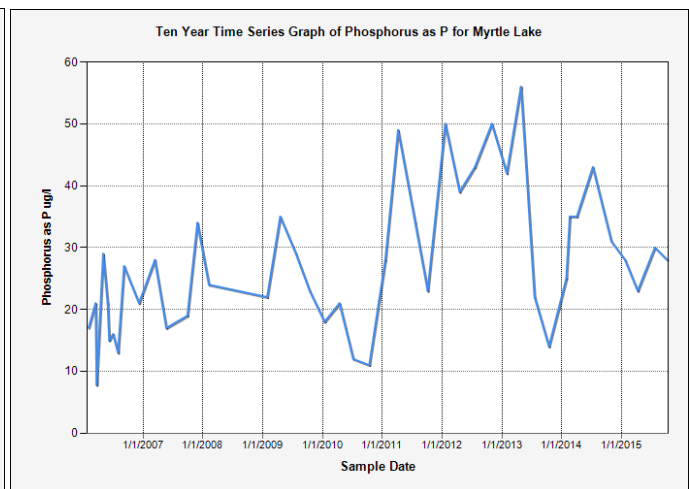
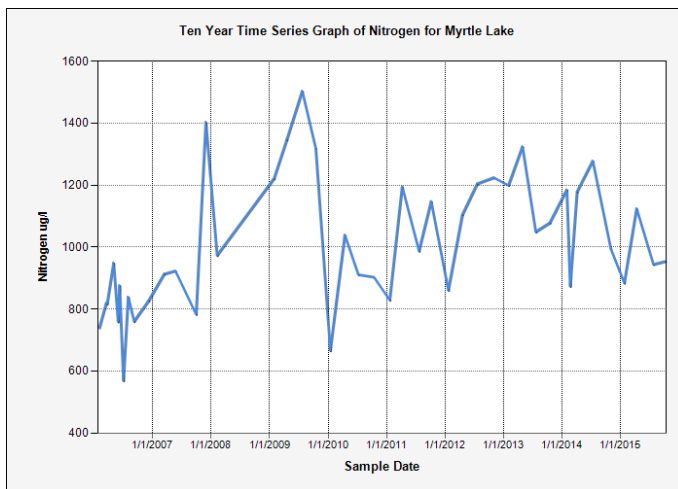
<http://www.seminole.wateratlas.usf.edu/lake/waterquality.asp?wbodyid=7624&wbodyatlas=lake>  
<http://www.seminole.wateratlas.usf.edu/resourceprogram.aspx?aid=15&wbodyid=7624>

### Myrtle Lake Water Quality Report: How Does My Lake Rank?

**TSI SCORE: 49 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. Continued 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.



## Exhibit D – Roles & Responsibilities

### ROLES & RESPONSIBILITY

#### General Outline

#### COUNTY

##### *Seminole County will*

- ✓ Govern the MSBU
- ✓ Provide financial management of MSBU fund
- ✓ Ensure activities conducted with assessment funding align with the scope of services documented in the governing ordinance
- ✓ Ensure the lake is monitored and services are appropriately rendered
- ✓ Maintain decision-making authority relative to lake management activities and aquatic vegetation management and will defer to best lake management practices when making such decisions
- ✓ Provide an ongoing lake management plan based on the defined service scope, permitting, conditions at the lake, funding parameters, and best lake management practices. The Lake Management Plan will be developed and maintained by the Lake Management Program with liaison participation.
- ✓ Initiate and manage service contracts, monitor results, and communicate updates on a routine basis
- ✓ Conduct annual meetings that offer opportunity for liaison discussion as to prior, current, and future action plans
- ✓ Encourage liaisons and assist with educational outreach efforts to protect the health and water quality of the waterbody

#### LIAISONS

##### *Liaisons will*

- ✓ Encourage communitywide awareness and participation relative to environmental stewardship recommendations and opportunities
- ✓ Provide communitywide communication and assist the County in the distribution of relevant lake information
- ✓ Attend annual lake management and budget planning sessions conducted by the County
- ✓ Serve as representatives of the community on lake issues; representing the respective lake community as a whole
- ✓ Monitor lake conditions and provide feedback to the County as to observations