

January 16, 2015

**MYRTLE LAKE
LAKE MANAGEMENT PLAN**

Annual Meeting – 2015

- Agenda

Lake Management Plan

- General Provisions & Scope of Services
- Community-Based Activities & Events
- Current Fiscal Year: Planned Treatments, Funding & Recommendations
- Next Fiscal Year: Projected Treatments & Funding
- Exhibits – Agenda & Notes from Prior Year, Budget & Financial Summary, Historic Reports/Data

MYRTLE LAKE

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, Steve Mikesell, and Gabriela Murza
Liaisons Present	:	Gretchen Hobkirk and Gabriela Murza
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

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), Lindy Freeman (lindyf@msn.com), Gretchen Hobkirk (ghobkirk@cfl.rr.com), and Gabriela Murza (gmurza@yahoo.com).

MYRTLE LAKE

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.

MYRTLE LAKE

COUNTY SERVICES – Lake Management & Supplemental Programs

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. 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. 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.

Current level of non-ad valorem assessment does not provide funding for large scale submersed vegetation treatments. Consider supplemental funding to address these needs.

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 (6 months budgeted) for non-native vegetation skipping the months of December-March (slow 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

Exhibit A - Notes from Prior Year Planning Session

ANNUAL MEETING

Date, Time & Location	:	January 21, 2014, 10:30 a.m., 200 W. County Home Rd – LMP Office
Community Liaisons	:	Dave Crowder, Lindy Freeman, Gretchen Hobkirk, Steve Mikesell, and Gabriela Murza
Liaisons Present	:	Lindy Freeman and Gabriela Murza
Seminole County Present:		Thomas Calhoun, 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 - increase in egg clutches along perimeter of south pool observed in 2013. Recommend 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 with the Seminole County Lake Management Program (LMP) determining, in conjunction with liaison input, when the treatment would provide the best response to the fluctuating lake conditions.
- 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

- FWC permit renewal
- Managing aquatic systems during lake draw-downs
- Potential planting events
- Plans for current fiscal year
- Projections for next fiscal year
- General recommendations for community consideration

Meeting Notes:

- Although no County initiated shoreline restoration events are scheduled this year, opportunity exists for individual properties to participate in restoration efforts. Lake Management Program can consult individually with properties or assist with plant procurement (community funded).
- Restoration events are scheduled on a rotational basis among all water bodies. 2015 or 2016 may be a possibility for another County initiated restoration activity event on Myrtle Lake.
- The current FWC permit is under one of the community liaison's name but will expire in 2014. Seminole County (SC) will check with the FWC regional biologist on best way to transfer the permit to SC.
- The importance of mowing where feasible was discussed. Some properties are consistent in their mowing practice.
- Budget funding for this fiscal year (2013-2014) allows for up to seven treatments if determined by SC to be required.

Exhibit B - Budget/Financial Overview

MSBU:

MYRTLE LAKE (Aquatic Weed Control)

Date:

January 16, 2015

Tax Year	2012	2013	2014	2015
Assessment	\$245.00	\$245.00	\$265.00	\$265.00
Fiscal Year	FY1213	FY1314	FY1415	FY1516
REVENUE	Actual	Actual	Working Budget	Projected Budget
Beginning Fund Balance	\$ 3,538	\$ 4,383	\$ 3,681	\$ 3,240
Assessments	\$ 6,159	\$ 6,159	\$ 6,614	\$ 6,614
Other	\$ 21	\$ 14	\$ -	
MSBU Program Fund Advance	\$ -	\$ -	\$ -	
TOTAL	\$ 9,718	\$ 10,556	\$ 10,295	\$ 9,855
Cost Sharing				
TOTAL	\$ 9,718	\$ 10,556	\$ 10,295	\$ 9,855
Lake Management Program				
TOTAL	\$ 9,718	\$ 10,556	\$ 10,295	\$ 9,855
EXPENDITURE	Actual	Actual	Working Budget	Projected Budget
County Administrative Fee	\$ 875	\$ 875	\$ 1,075	\$ 1,075
Fund Advance Repayment	\$ 560	\$ 540	\$ 520	\$ -
Contracted Services	\$ 3,900	\$ 5,460	\$ 5,460	\$ 5,950
<i>Routine Services</i>	\$ 3,900	\$ 5,460	\$ 5,460	\$ 5,950
<i>Algae</i>	\$ -	\$ -	\$ -	\$ -
<i>Hydrilla</i>	\$ -	\$ -	\$ -	\$ -
<i>Submersed</i>	\$ -	\$ -	\$ -	\$ -
<i>Labor</i>	\$ -	\$ -	\$ -	\$ -
<i>Other</i>	\$ -	\$ -	\$ -	\$ -
Contingency Reserve	\$ 4,383	\$ 3,681	\$ 3,240	\$ 2,830
TOTAL	\$ 9,718	\$ 10,556	\$ 10,295	\$ 9,855
Cost Sharing	\$ -	\$ -	\$ -	\$ -
TOTAL	\$ 9,718	\$ 10,556	\$ 10,295	\$ 9,855
Lake Management Program	\$ -	\$ -	\$ -	\$ -
TOTAL	\$ 9,718	\$ 10,556	\$ 10,295	\$ 9,855
Fund Advance BB Payment	\$ 1,500	\$ 1,000	\$ 500	\$ -
Fund Advance EB	\$ 1,000	\$ 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 2014 Water Quality Report: How Does My Lake Rank? TSI SCORE: 37 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.

