

2019

**MYRTLE LAKE
LAKE MANAGEMENT PLAN**

Annual Meeting

- 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)
 - Financial Summary
 - Historic Reports/Data
 - Roles & Responsibilities

MYRTLE LAKE: ANNUAL MEETING

Date/Time/Location	:	February 21, 2019 1:30pm 200 W. County Home Rd – LMP Office
Community Liaisons	:	Dave Crowder, Lindy Freeman, Gretchen Hobkirk, Gabriela Murza, and Jane Solverson
Liaisons Present	:	Lindy Freeman, Gretchen Hobkirk, and Gabriela Murza
Seminole County	:	Thomas Calhoun, Joey Cordell, and Joe Saucer

General Topics & Updates

Lake Management Program

- Welcome
- Fertilizer Ordinance- Passed on February 27, 2017 www.seminolecountyfl.gov/fertilizer
 - Restricted Months: no fertilizing June 1st- September 30th
 - Slow Release Nitrogen: at least 50%
 - Know How Much: www.seminolecountyfl.gov/calculator
 - Buffer Zone: 15 feet from all waterbodies
- Shoreline Protection Ordinance Status
 - FWC Rule change removes permit requirements on lakes smaller than 160 acres
 - Existing permit good for 3 more years on Myrtle Lake
 - Currently drafting County Shoreline Ordinance
 - Draft will be sent to liaisons for input before public hearing
 - Thomas will involve all lake liaisons, notify them before BCC meeting
- Lake Status Nutrients/Habitat Scores [Refer to Exhibit C: Bioassessment Indices]
 - Lake remains in Healthy category – Post hurricane effect
 - Hydrilla in less than 1ft depth
 - North canal to Lindy’s house is clear, hydrilla at Gretchen’s
 - Access is open through canal
- Treatment Plans - Current & Proposed [Refer to Lake Management Plan]
 - Monitor wildlife islands and access corridors in NE exiting portion of lake
 - Contractor worked through winter, no gaps in treatment
- General recommendations for lake-community consideration [Refer to Lake Management Plan]
 - Increase native aquatic plantings in areas devoid of vegetation
 - Promote “welcome packages” to new lakefront homeowners
 - Joey distributed packets and fertilizer ordinance information at end of meeting
 - Lakewatch samples - no data since 2006
 - Gretchen volunteered, Water Quality will contact for training
 - SC still samples quarterly
- 2019 Shoreline Planting Event- dates available
 - To be coordinated via Thomas Calhoun
 - April 6th, 2019 selected for restoration event
 - Liaisons requested list of plants
 - More cypress trees
 - Requested more cypress trees on the islands and removal of downed trees
 - Plant wildlife spoil island
- Other
 - Email Address for routine communications and important announcements
 - Community meeting scheduled for March 6th, 2019 @ 6:30pm
 - Updated hydrilla fund source/Hydrology
- Budget Notes
 - Carp barrier funded by Seminole County
 - Mowing is not part of current scope of services

MSBU Program

- Financial Summary [Refer to Exhibit B]

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

Financial management of the MSBU fund is provided by the Seminole County MSBU Program. Financial plans developed by the MSBU Program include eligible expense funding requests submitted by the Lake Management Program and other cost and revenue components typical to MSBU funds. Financial information inclusive of prior year actual outcome, current year working budget and next year budget proposal data is reported annually. Assessment levy is subject to Board approval and the standard procedures associated with non-ad valorem assessment. The financial plans may be adjusted by the County as merited per changing/evolving essential services as directed by the County and per financial planning considerations. 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), Gabriela Murza (gmurza@yahoo.com) and Jane Solverson.

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 along the shoreline 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. The presence of submerged aquatic vegetation (“SAV” such as hydrilla) should be communicated to your lake liaison for their reporting to the County so appropriate treatment of SAV can be provided.

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 treatments and waterbody bioassessments. 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 for non-native vegetation 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 needs

Funding Expectations

Refer to current fiscal year 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 for non-native vegetation and conducting supplemental treatments (as needed and budgeted)
- 2) Reduce biomass of lilies to increase water circulation and flow in stagnant areas
- 3) Continued maintenance of access corridors in the north east section (the exiting the south lobe to rest of Myrtle Lake) as water levels allow
- 4) Continued monitoring of hydrilla, other submersed aquatic plants, and grass carp fish needs
- 5) Future grass carp stockings if deemed necessary, pending permit amendment

Funding Expectations

Refer to next fiscal year data provided in Exhibit B.

Exhibits

- A – Notes from Prior Year Meeting**
- B – Financial Summary**
- C – Historic Reports/Data**
- D – Roles & Responsibilities**

Exhibit A – Agenda & Notes (Prior Year Meeting)

Date, Time & Location	: February 22, 2018 3:00 p.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 Joe Saucer

General Topics & Updates [Meeting Notes provided by respective Programs]

Lake Management Program

- Welcome
- Fertilizer Ordinance- Passed on February 27, 2017. www.seminolecountyfl.gov/fertilizer.
 - Fertilizer containing nitrogen or phosphorous cannot be applied to turf during the restricted season from June 1st – September 30th. Fertilizers containing Iron, Manganese and other "micronutrients" also referred to as "summer blends" can be applied during the restricted.
 - Fertilizer containing nitrogen that is used during the **non**-restricted season (October 1st – May 31st) must contain *at least* 50% or more slow release nitrogen. This slow release nitrogen content will increase to 65%, three (3) years after adoption of the Fertilizer Ordinance, to allow time for educational outreach to residents and retailers.
 - Fertilizer containing phosphorus cannot be applied to turf or plants unless a state certified soil or tissue test verifies that there is a phosphorus deficiency.
 - Use of deflector shields is required when applying fertilizer with a broadcast or rotary spreader.
 - No fertilizer may be applied within fifteen (15) feet of any pond, lake, stream, canal, or other waterbody, including wetlands.
- Shoreline Protection Ordinance Status
 - Awaiting FWC Rule changes
- Lake Status Nutrients/Habitat Scores [Refer to Exhibit C: Bioassessment Indices]
 - Lake remains in Healthy category
- Treatment Plans - Current & Proposed [Refer to Lake Management Plan]
 - Monitor wildlife islands and access corridors in NE exiting portion of lake
- General recommendations for lake-community consideration [Refer to Lake Management Plan]
 - Increase native aquatic plantings in areas devoid of vegetation
 - Promote "welcome packages" to new lakefront homeowners
 - Lakewatch samples - no data since 2006
- 2018 Shoreline Planting Event- dates available
 - To be coordinated via Thomas Calhoun (April 14th)
 - Residents interested in planting more cypress trees
- Other
 - Email Address for routine communications and important announcements
 - Liaisons expressed appreciation for AAM

MSBU Program

- Financial Summary - Refer to Exhibit B
 - Anticipating Administrative Fee increase FY19-20; tax year 2019
- Tentative date for next annual meeting: January 31, 2019 3:00PM

Tax Year Assessment	2017 \$ 290.00	2018 \$ 290.00	2019 \$ 290.00
Base	\$ 290.00	\$ 140.00	\$ 5.00
SAV	x	\$ 150.00	\$ 285.00
Fiscal Year	FY17-18	FY18-19	FY19-20
REVENUE	Actual	Working Budget	Projected Budget
Beginning Fund Balance	\$ 5,960	\$ 10,096	\$ 10,049
<i>BFB (Non-SAV)</i>	\$ 5,960	\$ 10,602	\$ 11,054
<i>BFB (SAV)</i>	\$ -	\$ (506)	\$ (1,004)
Assessment Revenue	\$ 7,260	\$ 7,238	\$ 7,238
<i>Assessment - non-SAV</i>	\$ 7,260	\$ 3,494	\$ 125
<i>Assessment - SAV</i>	\$ -	\$ 3,744	\$ 7,114
Other (Interest)	\$ 158	\$ 150	\$ 150
MSBU Program Fund Advance	\$ -	\$ -	\$ -
TOTAL	\$ 13,378	\$ 17,484	\$ 17,438
Cost Sharing Lake Management Program			
TOTAL	\$ 13,378	\$ 17,484	\$ 17,438
EXPENDITURE	Actual	Working Budget	Projected Budget
County Administrative Fee	\$ 1,075	\$ 1,235	\$ 1,235
Fund Advance Repayment	\$ -	\$ -	\$ -
Contracted Services	\$ 2,207	\$ 6,200	\$ 6,000
<i>Routine Services</i>	\$ 1,702	\$ 1,500	\$ 1,500
<i>[SAV] Hydrilla</i>	\$ 506	\$ 3,500	\$ 3,500
<i>[SAV] TGC Fish</i>	\$ -	\$ 200	\$ -
<i>[SAV] Fish Barrier Service - NA</i>	\$ -	\$ -	\$ -
<i>[SAV] Fish Barrier Replacement - NA</i>	\$ -	\$ -	\$ -
<i>Nutrient Abatement (NAV)</i>	\$ -	\$ -	\$ -
<i>Harvesting</i>	\$ -	\$ -	\$ -
<i>Other - hand crew services</i>	\$ -	\$ 1,000	\$ 1,000
Reserve/Contingency	\$ 10,096	\$ 10,049	\$ 10,203
<i>Operating Contingency (Non-SAV)</i>	\$ 10,602	\$ 11,054	\$ 8,136
<i>Operating Contingency (All SAV)</i>	\$ (506)	\$ (4,504)	\$ (1,433)
<i>Reserve: Hydrilla (Whole Lake)</i>	\$ -	\$ 3,500	\$ 3,500
<i>Reserve: Barrier Replace/Repair</i>	\$ -	\$ -	\$ -
<i>Reserve: Admin Code & Ord Amnd</i>	\$ -	\$ -	\$ -
TOTAL	\$ 13,378	\$ 17,484	\$ 17,438
Cost Sharing Lake Management Program	\$ -	\$ -	\$ -
TOTAL	\$ 13,378	\$ 17,484	\$ 17,438
Fund Advance BB Payment (Principal)	\$ -	\$ -	\$ -
Fund Advance EB	\$ -	\$ -	\$ -
MSBU Program Administration Cost	\$ 1,100	\$ 11,600	
LM Program Administration Cost	\$ 6,500		
Restoration Event Cost	\$ 4,000		

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: 57 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.

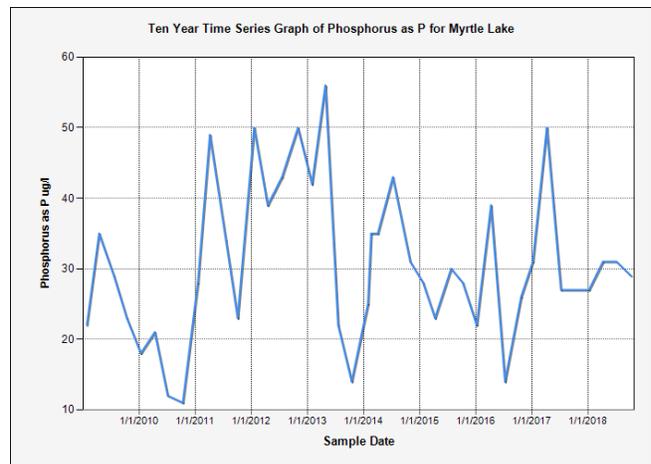
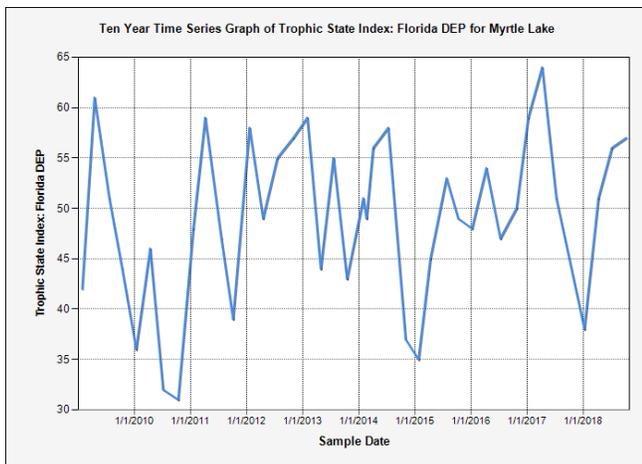


Exhibit D – Roles & Responsibilities

ROLES & RESPONSIBILITY

General Outline

COUNTY

Seminole County will

- ✓ Govern the MSBU
- ✓ Provide financial management of MSBU fund and assessment levy
- ✓ 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 public services 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