

January 19, 2017

**SWEETWATER COVE LAKE
ANNUAL MEETING & LAKE MANAGEMENT PLAN**

Annual Meeting – 2017

- 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

SWEETWATER COVE LAKE ANNUAL MEETING

Date, Time & Location	:	January 19, 2017, 11:00 a.m., 200 W. County Home Rd – LMP office
Community Liaisons	:	Patrick Flynn [Utilities], Clark Gwinn, Sherrie Hill, and Dennis Marra
Liaisons Present	:	Patrick Flynn, Clark Gwinn, Sherrie Hill, and Dennis Marra
Seminole County	:	Thomas Calhoun, Joey Cordell, Gloria Eby, Joe Saucer and Kathy Moore

Topics carried forward from prior fiscal year activity [\[Meeting Notes\]](#)

- Fertilizer Ordinance & Shoreline Protection Ordinance
 - Both ordinances contain commitments and directives that will contribute to environmental improvement and protection long-term for lakes and other waterbodies. The Fertilizer Ordinance focuses primarily on fertilizer selection (phosphate free, slow release nitrogen) and application (location, volume, timing). The Shoreline Protection Ordinance mirrors the State’s guidelines for shoreline vegetation and development as historically communicated by the LMP and demonstrated by the best lake management practices followed by MSBU funded services. The Fertilizer Ordinance is tentatively scheduled for BCC review/approval consideration on February 28; while the Shoreline Protection Ordinance development continues with final presentation anticipated later in 2017. [Note: The Shoreline Protection Ordinance approval process involves several levels of approval as the directives need to be included in the County’s Land Development Code.] Educational materials are readily available to further promote awareness, understanding and compliance.
 - FWC is proposing a change to their permitting responsibilities respective to aquatic plant management. The proposed (and likely to be adopted rule changes) will have impact on the permits associated with lakes less than 160 acres in size. The importance of Seminole County enacting the Shoreline Protection Ordinance is heightened by this change. In association with the ordinance, the County will be confirming delegated enforcement authority from FWC to provide ongoing compliance efforts respective to adopted protective measures. When presentation dates are confirmed, LMP will provide email updates so interested property owners and residents are aware of these activities. Supportive participation is encouraged.
 - The FWC rule revision will have lesser impact on Sweetwater Cove Lake due to the lake’s connectivity with the Wekiva River.
- Nutrient study
 - Study initiated at start of FY16-17 (October 1, 2016) and will take approximately 1 year to conduct research for analysis. Anticipate preliminary results by end of December 2017; full results early 2018. A community presentation of results and recommendations will be provided when the report is released.
 - A *whole-lake* alum treatment is on hold until study results are released; *spot treatments* will be conducted as merited while awaiting full study results and directives. Joe Saucer to distribute web information on Alum treatments.
 - \$70,000 or greater is the guesstimate for a single cycle whole lake Alum treatment; such cost estimates will be incorporated into budget when numbers are available. The initial treatment cycle funding proposed is via 1 cent sales tax contributions.

General Topics & Updates [\[Meeting Notes\]](#)

- 2017 Shoreline Planting Event
 - April 22, 2017; to be coordinated via Thomas Calhoun; SERV to provide event flyer; 3-4 types of recommended aquatic plants will be provided for the event by LMP.
- Plans for current fiscal year
 - Refer to Page 6

- Lyngbya efforts- harvesting
 - Tiger Cat – smaller, less cumbersome aquatic vegetation harvesting equipment; 2/1/17 LMP and liaisons to meet on site to review equipment features
 - Current year working budget does not include harvesting expenses, but can be allocated if harvesting is deemed necessary
- Sedimentation build up
- Projections for next fiscal year
 - Refer to Page 6
- Financial Status & Budget – Prior, Current and Proposed
 - Refer to Exhibit B – Assessment rate remains at \$145.00; however, harvesting and treatment costs are being closely monitored due to higher than anticipated expenditures in prior year. Budget projections after FY17-18 will be updated to include alum treatment cost estimates in later years. Future assessment rates dependent on ongoing treatment cost and recommendations proposed by Nutrient Study outcome.
- General recommendations for community consideration
 - Refer to Page 5 - Increase native aquatic plantings in areas devoid of vegetation; eliminate grass clippings from entering lake (*contributing to phosphorus loading*)

SWEETWATER COVE 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 2014-15
- Agreement with Sweetwater Oaks Homeowners Association, Inc.
- 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, sonic, etc.)

Targeted Invasive/Exotic Aquatic Vegetation

- Water hyacinth, torpedo grass, paragrass, cattail, primrose willow, alligator weed, Cuban bulrush, exotic water lily, wild taro, water fern, algae, spatterdock, southern naiad, coontail, and willow (hydrilla is excluded).

Frequency of AWC Treatment

AWC services are performed at the direction of the Seminole County LMP as per the Sweetwater Cove 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. The governing ordinance does not include assessment restrictions specific to annual adjustment amounts and/or assessment cap.

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 current liaisons for Sweetwater Cove Lake are:

Dennis Marra (dpm901@aol.com), CJ Blancett (manager@sweetwateroaks.org), Patrick Flynn (pcflynn@uiwater.com), michael@michaelerichards.com, Sherrie Hill (Sherriehill@sweetwateroaks.org) and Clark Gwinn (wclarkgwinn@cfl.rr.com)

COMMUNITY-BASED ACTIVITIES & EVENTS

LMP continues to recommend/encourage future resident-based volunteers involving native plantings along the shoreline. The intention of such an event is to plant beneficial native aquatic plants in key areas along the shoreline. It is especially important that as aquatic invasive plants (such as torpedo grass) are being treated, native aquatic plants should be established within these areas. This also provides habitat for fish and wildlife, helps impede invasive exotics from re-establishing and reduces sedimentation into the lake due to erosion of the shoreline. All of these best lake management practices are essential to providing a more environmentally stable lake for generations to come. The key to success in lake management projects is dependent on strong participation of the Sweetwater Cove Lake community.

Continued recommendations for community initiatives are as follows:

- 1) Consider review of street sweeping program,
- 2) 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 and slow-releasing nitrogen based 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
- 3) Provide content for the Seminole County Water Atlas Lake Management webpage for Sweetwater Cove Lake (such as newsletters, photos, and community updates).

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

Sweetwater Cove 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

Invasive aquatic growth in Sweetwater Cove Lake has likelihood to continue, however, the timing and re-growth is affected by multiple natural and environmental factors that cannot be controlled or predicted with certainty. While extensive growth is possible at any point in time, it is anticipated that routine spot treatments with herbicides will be sufficient to manage re-growth during the current fiscal year. The anticipation of spot treatments for the current fiscal year takes into consideration the historic trend of management required at Sweetwater Cove Lake, as well as current conditions observed at the lake. As with any lake with a history of invasive aquatic growth, long-term planning to include financial preparation for whole lake treatment is advised. LMP will continue to closely monitor Sweetwater Cove Lake.

Primary expectations are as follows:

- 1) Monitor aquatic vegetation growth
- 2) Conduct spot treatments as required
- 3) Scheduled treatment of the invasive aquatic plants – herbicides
- 4) Increase number of shoreline re-vegetation sites (lakefront community)
- 5) Monitor/control/replant managed areas

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 close monitoring of aquatic vegetation growth
- 2) Conduct spot treatments as required
- 3) Continued treatment of the invasive aquatic plants – herbicides
- 4) Continue to increase number of shoreline re-vegetation sites (lakefront community)
- 5) Monitor/control/replant managed areas

Funding Expectations

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

Exhibits

A – Agenda & Planning Session Notes (Prior Year)

B – Budget/Financial Summaries

C – Historic Reports/Data

D – Roles & Responsibilities

Exhibit A - Planning Session Notes (Prior Year)

ANNUAL MEETING

Date, Time & Location	:	January 28, 2016, 9:00 a.m., 200 W. County Home Rd – LMP office
Community Liaisons	:	Patrick Flynn [Sanlando Utilities], Clark Gwinn, Dennis Marra, and Thomas Stahl
Liaisons Present	:	Patrick Flynn [Sanlando Utilities] and Dennis Marra
Seminole County	:	Thomas Calhoun, Joey Cordell, Gloria Eby, and Kathy Moore
Other Guests	:	Michael Richards

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

- FWC permit status for additional Lyngbya control methods
 - Separate meeting to be held with representatives of state agencies to pursue objectives and permit to treat as viewed biologically necessary under circumstance present at Sweetwater Cove Lake
- 2016 Shoreline Restoration event
 - To be coordinated via Thomas Calhoun; request at least 50% of the available sites are new sites (not previously participating in planting event)
- 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 [Meeting Notes]

- Nutrient study
 - Proposed scope of work received and awaiting Public Works Department Director signature for work order approval
 - Study duration – approximately 1 year
 - *Whole-lake* alum treatment on hold until study results are released; *spot treatments* will be conducted as merited while awaiting full study results and directives
- Plans for current fiscal year
 - Refer to Page 4
 - Targeting holistic approach within permit parameters; spot treatments for phosphorus sequestering as merited while awaiting results of Nutrient Study; potential biomass reduction via harvesting (dependent on water depth and cost factors)
 - Use of County equipment for harvesting is not an option
 - Treatment regime will continue as last year (14 day interval treatments during peak growth)
- Projections for next fiscal year
 - Refer to Page 4
- Budget
 - Refer to Exhibit B – Assessment to be same as prior years; holding constant until Nutrient Study results are available to address long-term needs and cost
- Educational Outreach
 - Florida Yards and Neighborhoods – viewed new video with shoreline protection recommendations
- General recommendations for community consideration
 - Refer to Page 4

Exhibit B - Budget/Financial Overview

MSBU: Sweetwater Cove Lake

Date: January 1, 2017

	Tax Year	2014	2015	2016	2017
	Assessment	\$145.00	\$145.00	\$145.00	\$145.00
	Fiscal Year	FY14-15	FY15-16	FY16-17	FY17-18
REVENUE		Actual	Actual	Working Budget	Proposed Budget
Beginning Fund Balance		\$ -	\$ 11,788	\$ 10,792	\$ 21,210
Assessments		\$ 33,520	\$ 33,874	\$ 33,443	\$ 33,443
Other		\$ 60	\$ 75	\$ 75	\$ 75
MSBU Program Fund Advance		\$ -	\$ -	\$ -	\$ -
TOTAL		\$ 33,580	\$ 45,737	\$ 44,310	\$ 54,728
Cost Sharing Lake Management Program		\$ -	\$ -	\$ -	\$ -
TOTAL		\$ 33,580	\$ 45,737	\$ 44,310	\$ 54,728
EXPENDITURE		Actual	Actual	Working Budget	Proposed Budget
County Administrative Fee		\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500
Application Fee		\$ 550	\$ -	\$ -	\$ -
Fund Advance Repayment		\$ -	\$ -	\$ -	\$ -
Contracted Services		\$ 19,741	\$ 33,445	\$ 21,600	\$ 28,600
	<i>Routine Services</i>	\$ 19,741	\$ 26,645	\$ 21,600	\$ 21,600
	<i>Harvesting</i>	\$ -	\$ 6,800	\$ -	\$ 7,000
	<i>Other</i>	\$ -	\$ -	\$ -	\$ -
Contingency Reserve		\$ 11,789	\$ 10,792	\$ 21,210	\$ 24,628
TOTAL		\$ 33,580	\$ 45,737	\$ 44,310	\$ 54,728
Cost Sharing Lake Management Program		NA	\$ -	\$ -	\$ -
TOTAL		NA	\$ 45,737	\$ 44,310	\$ 54,728
Fund Advance BB Payment		\$ -	\$ -	\$ -	\$ -
Fund Advance EB		\$ -	\$ -	\$ -	\$ -

Exhibit C - Historic Reports/Data

Additional information for Sweetwater Cove Lake can be found on the County's Water Atlas website at:

<http://www.seminole.wateratlas.usf.edu/resourceprogram.aspx?aid=15&wbodyid=7713>

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