

**January 28, 2016**

**SWEETWATER COVE LAKE  
ANNUAL MEETING & 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

# SWEETWATER COVE LAKE 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

# 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](mailto:dpm901@aol.com)), Tom Stahl ([traystahl@gmail.com](mailto:traystahl@gmail.com)), and Clark Gwinn ([wclarkgwinn@cfl.rr.com](mailto: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 15, 2015, 1:00 p.m., 200 W. County Home Rd – LMP office   |
| Community Liaisons    | : | Clark Gwinn, Dennis Marra, and Thomas Stahl;<br>Patrick Flynn [and Bryan Gongre] for Sanlando Utilities Corporation |
| Liaisons Present      | : | Clark Gwinn, Dennis Marra, Michael Richards, Chuck Scales, and Thomas Stahl   |
| Seminole County       | : | Gloria Eby and Carol Watral   |
| Other Guests          | : | Michael Richards, Chuck Scales, Roslyn Smith  |

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

- Sweetwater Cove Lake Aquatic Weed Control MSBU was established on March 11, 2014. As of October 1, 2014, funding for the aquatic weed control services will be through the established MSBU. Prior to October 1, 2014, Seminole County funded contracted services.
- SC SERV and LMP Sweetwater Lakes Restoration event held April 26, 2014, with 8,400 free plants installed at 20 sites by 83 volunteers.
- Three sonic devices are in place as part of a pilot study on algae control. LMP is monitoring several
- Algae herbicide treatments conducted every 14 days or as determined by Seminole County.
- Invasive vegetation being treated includes lilies (hydrilla NOT included).
- 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

- Potential community meeting (educational ways to reduce pollution such as grass clippings).
- FWC permit status for additional Lyngbya control methods.
- ERD lyngbya study.
- Sonic devices and algae update.
- Diffuser options.
- Upcoming April 18, 2015 Restoration Event and impact of wildlife (deer) upon plants.
- Hunt Club Wastewater Treatment Facility.
- Plans for current fiscal year/Projections for next fiscal year.
- General recommendations for community consideration.

#### Meeting Notes:

- Sweetwater Oaks Board advised that AAM [Applied Aquatics Management] is treating non-MSBU waterbodies via HOA funds
- FWC is working towards permitting chelated copper which will be targeted to the lower lake
- April 18, 2015, restoration event was discussed:
  - Deer impacted sites can be targeted
  - Sanlando is coordinating volunteers from Sanlando
  - ~20 sites should be provided by Liaisons to LMP as soon as possible
- Sonic units: Vendor has expressed disappointment in results; continued monitoring will determine if the units will maintain current vegetation level through to mid-summer; vendor offered to remove sonic units and install a diffusion/aeration system (at vendor's cost), but liaisons' consensus was to continue with the sonic units through the remainder of the one year trial period
- Sanlando Utilities discussed the release from the Wekiva Hunt Club Wastewater Treatment Plant, restorative actions, and future preventative measures

## Exhibit B - Budget/Financial Overview

MSBU: Sweetwater Cove Lake

Date: January 1, 2016

| Tax Year<br>Assessment    | 2013    | 2014             | 2015             | 2016             |
|---------------------------|---------|------------------|------------------|------------------|
|                           | NA      | \$145.00         | \$145.00         | \$145.00         |
| Fiscal Year               | FY13-14 | FY14-15          | FY15-16          | FY16-17          |
| <b>REVENUE</b>            |         |                  |                  |                  |
|                           | Actual  | Actual           | Working Budget   | Proposed Budget  |
| Beginning Fund Balance    | NA      | \$ -             | \$ 11,789        | \$ 17,651        |
| Assessments               | NA      | \$ 33,520        | \$ 33,443        | \$ 33,443        |
| Other                     | NA      | \$ 60            | \$ 20            | \$ -             |
| MSBU Program Fund Advance | NA      | \$ -             | \$ -             | \$ -             |
| <b>TOTAL</b>              | NA      | <b>\$ 33,580</b> | <b>\$ 45,251</b> | <b>\$ 51,094</b> |
| Cost Sharing              | NA      | \$ -             | \$ -             | \$ -             |
| Lake Management Program   | NA      | \$ -             | \$ -             | \$ -             |
| <b>TOTAL</b>              | NA      | <b>\$ 33,580</b> | <b>\$ 45,251</b> | <b>\$ 51,094</b> |
| <b>EXPENDITURE</b>        |         |                  |                  |                  |
|                           | Actual  | Actual           | Working Budget   | Proposed Budget  |
| County Administrative Fee | NA      | \$ 1,500         | \$ 1,500         | \$ 1,500         |
| Application Fee           | NA      | \$ 550           | \$ -             | \$ -             |
| Fund Advance Repayment    | NA      | \$ -             | \$ -             | \$ -             |
| Contracted Services       | NA      | \$ 19,741        | \$ 26,100        | \$ 26,100        |
| <i>Routine Services</i>   | NA      | \$ 19,741        | \$ 21,600        | \$ 21,600        |
| <i>Harvesting</i>         | NA      | \$ -             | \$ 4,500         | \$ 4,500         |
| <i>Other</i>              | NA      | \$ -             | \$ -             | \$ -             |
| Contingency Reserve       | NA      | \$ 11,789        | \$ 17,651        | \$ 23,494        |
| <b>TOTAL</b>              | NA      | <b>\$ 33,580</b> | <b>\$ 45,251</b> | <b>\$ 51,094</b> |
| Cost Sharing              | NA      | \$ -             | \$ -             | \$ -             |
| Lake Management Program   | NA      | \$ -             | \$ -             | \$ -             |
| <b>TOTAL</b>              | NA      | <b>\$ 33,580</b> | <b>\$ 45,251</b> | <b>\$ 51,094</b> |
| 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