

## Seminole County Lake Management Program

# FWC Update Aquatic Plant Control Permits

On November 20<sup>th</sup>, 2018, an Amendment was passed by the Florida Fish and Wildlife Conservation Commission (FWC) concerning “Waters or Activities Exempt from Permitting” (68F-20.0035). Key highlights of this Amendment are listed at right:



**No aquatic plant control permit is required** by the Commission for the following waters or activities:

- **Waters that are less than 160 surface acres** unless the Waters are a public waterbody
- Waters where all of the surrounding upland property and submerged lands are wholly owned by one person, other than the state
- Artificial waters
- Electrical power plant cooling ponds, reservoirs, or canals
- Where an Environmental Resource Permit is issued by DEP or one of the state’s Water Management Districts and aquatic plants are removed as a part of the permitted activity
- Activities conducted, authorized, or contracted for by the Commission

Exceptions to the above: if the waters or activity have a direct connection to Florida Outstanding Waterbodies, Waters of Special Concern, or a manatee aggregation site

Although certain waters are exempt from the Commission’s permit requirements, all aquatic plant management activities shall be conducted in a manner so as to protect human health, safety, recreational use, and to prevent injury to non-target plant and animal life, and property, to the greatest degree practicable. When applying a herbicide in exempt waters, all persons shall comply with label rates, instructions, cautions, and directions, and shall follow the public notice requirements of paragraph 68F-20.0055(2)(c), F.A.C.

## Fertilizer Update

We are now in the “restricted season” (June 1st – September 30th); fertilizers containing nitrogen may not be used during this time period. “Summer blends” containing Iron, Manganese, and other micronutrients are a good alternative during this season.



Visit <http://www.seminolecountyfl.gov/fertilizer> for more Information about the Fertilizer Ordinance.

# Aquatic Plant of the Month

## Bladderwort (*Utricularia species*): A Florida Native

14 Species of Bladderwort exist in Florida, all of which are native.

### Identification

Bladderworts are annual or perennial plants which lack roots and are free floating. The entire free-floating plant is typically 8 inches tall with yellow, purple, or white flowers that rise above the water's surface. Underwater, the plant has fleshy, inflated stems that are filled with air and allow it to float. The leaves are forked and often have a very fine capillary appearance.

This unique carnivorous plant utilizes small oval "bladders" on its underwater leaves to trap and digest small aquatic organisms. Hairs at the edge of the bladder act as a trigger, causing the trap to spring open and draw in water (and organisms) when contacted.

### Wildlife Value

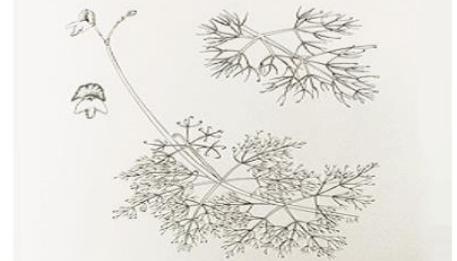
Common bladderwort is used by several insects, waterfowl, and mammals as a food source. The stems also provide shelter and a place for wildlife to lay eggs.

Native submersed aquatic plants provide habitat for several micro- and macroinvertebrate species, which in turn provide a source of food for fish and other aquatic wildlife species including reptiles, amphibians, and waterfowl. Once aquatic plants die, their decomposing parts provide food (referred to as "detritus") for several aquatic invertebrates.

Additionally, native submersed plants play an important role in the aquatic ecosystem by reducing nutrients within the waterbody and by competing with invasive species for space.

### Control

Although native, bladderwort may impede recreational access. For questions concerning control of bladderwort or to apply for a free aquatic plant removal permit, please contact your state agency, the Florida Fish and Wildlife Conservation Commission, online at: <http://myfwc.com/license/aquatic-plants> or by calling 407-858-6170.



#### Sources

- Stritch, L. (n.d.). *Common Bladderwort*. U.S. Forest Service. Retrieved from [http://www.fs.fed.us/wildflowers/plant-of-the-week/utricularia\\_macrorhiza.stm](http://www.fs.fed.us/wildflowers/plant-of-the-week/utricularia_macrorhiza.stm)
- Texas A&M AgriLife Extension. (2015). *Bladderwort*. Retrieved from <http://aquaplant.tamu.edu/plant-identification/alphabetical-index/bladderwort/>
- Wellendorf, N. (2011, April 27). *How to Distinguish the Aquatic Bladderworts* [PDF]. Retrieved from <http://www.dep.state.fl.us/water/bioassess/docs/plantsfield-id-utricularia-species.pdf>

# Bioinspection Notes

**SAV:** submersed aquatic vegetation, plants live under water.  
**Emergent vegetation:** plants rooted underwater, have leaves/stems that grow above the surface.  
**Secchi depth:** a measurement of water clarity.



## Lake Amory

Bladderwort and lily pads were treated to open up navigation. Algae that was previously present was absent during the last inspection.



## Lake Asher

The planted vegetation is very healthy. Erosion was observed in some areas devoid of vegetation. Lily pads are being targeted for treatment. No submersed aquatic vegetation was observed. Invasive trees in the conservation easement are scheduled to be removed.



## Lake Burkett

No Hydrilla was found during the most recent inspection. Native SAV such as eelgrass and bladderwort have expanded around the lake creating a great ecosystem.



## Buttonwood Pond

The native SAV stonewort was found expanding throughout the pond. Algae was only present in the small lobe of the pond. Low water has impacted most of the native emergent vegetation but fireflag is doing well throughout the waterbody.

# Bioinspection Notes



## English Estates Pond

The pond continues to be treated for torpedo grass, alligator weed, and primrose willow. Planktonic algae is being treated every month throughout the summer.



## Grace Lake

The amount of torpedo grass has decreased dramatically throughout the lake. This is due to herbicide treatments and residents mowing as the low water elevation allows. There will be no need for harvesting of torpedo grass this year. Planktonic algae blooms have been persistent during the summer months; however, this is a natural and temporary event and will only be treated in extreme cases.



## Horseshoe Lake

No water hyacinth or Hydrilla were present during the most recent inspection. Native vegetation is expanding in some areas. Conservation easement violations have been reported to SJWMD and the city of Oviedo.



## Howell Creek

The native SAV species Cabomba has decreased due to treatment. Hydrilla was found very sparsely and grass carp were observed in the creek. Treatments for torpedo grass and cattails have been provided in Lake Waumpi by the City of Winter Park.

# Bioinspection Notes



## Lake Howell

No Hydrilla was found during the previous inspection. There was very little water hyacinth present. Cattails and Hygrophila continue to be treated. A general loss of SAV has been noted over the past year.



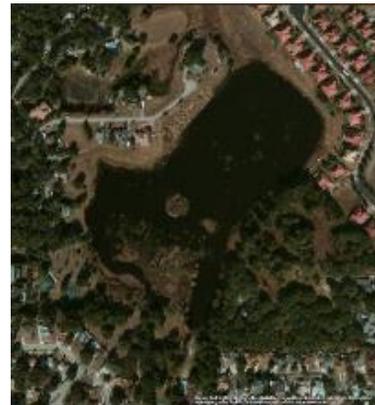
## Lake Mills

Baby tears is increasing around the lake again. Hydrilla has not been observed in the lake recently, it has only been found in the canal area. 243 grass carp are planned to be added to help maintain SAV. Mechanical harvesting for baby's tears in troublesome areas is being quoted.



## Mirror Lake

Emergent plants including cattail, alligatorweed and torpedo grass continue to be treated. Treatments to reduce lily pads and the SAV were scheduled and executed. Planktonic algae blooms have been occurring around the lake. These are typical for the summer season and will only be treated in extreme cases.



## Myrtle Lake

Water elevation has been low causing the invasive barnyard grass to burgeon along the northshore, spoil islands, and canal area. These areas will be scheduled to be treated. Lily pads have also increased and will be scheduled for treatment. Hydrilla has decreased due to low water elevation.

# Bioinspection Notes



## Lake Pickett

Bogmoss biomass has continued to decrease lake wide. No Hydrilla was observed during the previous inspection. The native emergent vegetation maidencane has expanded in a few areas since last year's loss. A few small patches of the invasive SAV species *Limnophila* were found along the northeastern shoreline.



## Spring Lake

Hydrilla, bladderwort, and eelgrass, species of SAV, have been treated in trouble areas. Native emergent vegetation continues to slowly expand. Eelgrass is reestablishing in deeper water as found by our most recent vegetation mapping event. The establishment of native SAV in deeper water plays an important role in reducing nutrients in the lake.



## Spring Wood Lake

Native emergent vegetation, pickerelweed and fireflag in particular, are slowly expanding since last year's rapid reduction. A lake-wide band treatment for Hydrilla was executed in July.



## Sweetwater Lakes

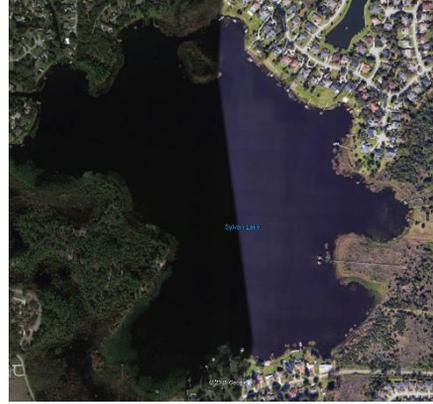
Lyngbya is being treated chemically bi-monthly and harvested monthly throughout the summer. Treatments for *Salvinia*, lily pads, and small areas of the SAV *bacopa* are planned.

# Bioinspection Notes



## Springwood Waterway

A submersed treatment was executed targeting Hydrilla, bladderwort, and southern naiad. Native emergent vegetation was found to be in great condition.



## Lake Sylvan

The canals of Lake Sylvan have been opened up for navigation. In October of 2019, 376 sterile grass carp fish were added to the lake to suppress Hydrilla, torpedoglass, and cattails. These plants continue to be targeted for treatment. Areas of the native SAV species Bacopa were scheduled for treatment in trouble areas.



## Lake of the Woods

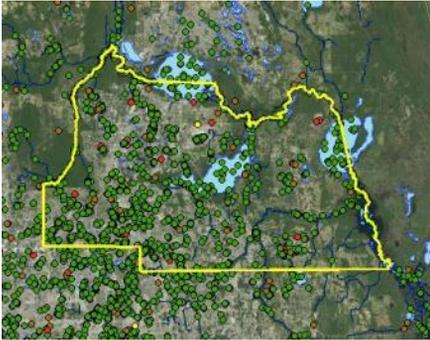
Hydrilla has been reduced via herbicide treatment and the stocking of 51 grass carp fish. However there is still a large amount of SAV and we will pursuing another stocking of 51 fish. Strong flow due to summer rain events has necessitated an increase in carp barrier maintenance.

# Recommendations & Additional Info



➤ If your lake is greater than 160 acres, and you are interested in altering your shoreline or treating exotic vegetation with an herbicide, please remember that you must apply for a free aquatic plant removal permit through the Florida Wildlife Conservation Commission (FWC) <http://www.myfwc.com/license/aquatic-plants> or contact FWC Regional Biologist, Kristine Campbell ([Kristine.Campbell@myfwc.com](mailto:Kristine.Campbell@myfwc.com), 321-246-0682).

➤ Work together with other lakefront owners. Have at least one annual lake association meeting, invite guest speakers (such as Seminole County or state biologists) and discuss lake-specific issues, especially nutrient/lake management recommendations. Seminole County Lake Management Program staff would be glad to present their findings from their Bioinspections. Also continue to increase native aquatic plantings along the shoreline (such as pickerelweed, duck potato, and canna).



➤ Water quality and biological information, such as the Lake Vegetation Index (LVI) for each lake, can be found on the Seminole County Water Atlas (<http://www.seminole.wateratlas.usf.edu/>) to read interesting information about your specific waterway, and our website (<http://www.seminolecountyfl.gov/LMP>) to watch educational videos and download lake management pamphlets.

➤ For individual Lake Management Plans: Click on Active MSBUs at [www.seminolecountyfl.gov/msbu](http://www.seminolecountyfl.gov/msbu)

## Lake Watch

Consider joining Florida LAKEWATCH, a citizen volunteer lake monitoring program that facilitates "hands-on" citizen participation in the management of Florida lakes, rivers and coastal sites through monthly monitoring activities. For more information, visit the website (<http://lakewatch.ifas.ufl.edu/>), or contact Jason "Mo" Bennett ([jpb@ufl.edu](mailto:jpb@ufl.edu), 352-273-3639).



# Events & Contacts

## Events

- Please note that our Fall 2020 events have been postponed until Spring 2021 due to COVID-19 health safety precautions. However, please contact Thomas Calhoun ([tcalhoun@seminolecountyfl.gov](mailto:tcalhoun@seminolecountyfl.gov), 407-665-2459) if interested in helping with the shoreline restoration events next year. It's never too soon to start planning! We look forward to working with you then.



## Contacts



GLORIA EBY  
Seminole County LMP  
Principal Environmental  
Scientist  
geby@  
seminolecountyfl.gov  
407-665-2439

THOMAS CALHOUN  
Seminole County LMP  
Sr Environmental Scientist  
tcalhoun@  
seminolecountyfl.gov  
407-665-2459

JOEY CORDELL Seminole  
County LMP  
Lake Management  
Technician  
jcordell@  
seminolecountyfl.gov  
407-665-5842

TONY CINTRON  
Seminole County LMP  
Lake Management  
Technician  
acintron@  
seminolecountyfl.gov  
407-665-5264

MSBU Program  
msbuprogram@  
seminolecountyfl.gov  
407-665-7178  
[www.seminolecountyfl.gov/msbu](http://www.seminolecountyfl.gov/msbu)

