

Greetings Spring Wood Lake and Springwood Waterway!

Please find the latest bioassessment for your lake below. Our next scheduled bioassessment will be **July 2nd**, weather permitting. Key highlights of this update will include:

- Successful hydrilla spot treatments in Spring Wood Lake and Springwood Waterway
- Reduction of hydrilla biomass for Spring Wood Lake in deeper water
- What are the Alien eggs in my canal? Bryozoans and they are found present throughout the canal
- **Next Springwood Waterway Restoration Event scheduled for June 29th, 2013**
- Recommendations for you and your waterbody

Spring Wood Lake

On **May 7th, 2013**, Seminole County Lake Management Program (SCLMP) staff Gloria Eby and Marie Lackey surveyed the aquatic plants in **Spring Wood Lake**.

Hydrilla was found during the inspection to a depth of 9 feet intermixed with the native vegetation. There were no monocultures (single-crop) of hydrilla found within the lake as they were successfully treated in April. Although sprigs of hydrilla were found to a depth of 9 feet, it was noted that hydrilla was present in less biomass than in prior inspections. With the increase in water elevation (ultimately decreasing clarity and sunlight availability to the deep water hydrilla plants) and the combination of the grass carp stockings, we are hopeful hydrilla continues to struggle and diminish without the need of chemical intervention. We will continue to closely monitor hydrilla to determine if further management action is required.

Photo: Hydrilla sprig found intermixed with stonewort and southern naiad.



Beneficial native SAV found during inspection included; southern naiad to 9 feet, chara to 8 feet, nitella to 6 feet, and lemon bacopa to 6 feet. Southern naiad is considered the dominant SAV.

Photo: Hydrilla found intermixed with southern naiad (on left) and collected from water depths of 9 feet (on right).



Native aquatic vegetation such as duck potato, pickerelweed, maidencane, and native rushes are the dominant emergent vegetation within Spring Wood Lake. This is a product of the multiple lake-wide restoration events combined with the routine maintenance of the MSBU funded aquatic herbicide contractor.

Secchi disc reading (a measurement for water clarity) was 5.8 feet in a depth of 11.0 feet; a decrease from previous reading of 9 feet. No grass carp fish were observed during inspection.

Springwood Waterway

On **May 7th, 2013**, Seminole County Lake Management Program (SCLMP) staff Gloria Eby and Marie Lackey surveyed the aquatic plants in **Springwood Waterway**.

There were no monocultures (single-crop) of hydrilla found within the waterway as they were successfully treated in April.

Native submersed aquatic vegetation (SAV) observed included; lemon bacopa to a depth of 2 feet, road grass to 2 feet, stonewort to 2 feet, and purple bladderwort to 3 feet. Stonewort and bladderwort are found in 1 to 3 foot mats along the bottom at the entrance of the waterway. The entrance to canal is navigable and does not require mechanical harvesting for access at this time.

Photo: Bladderwort found at the entrance to the waterway topping out.



As result of the multiple restoration events and the routine MSBU funded maintenance, native plants are expanding well especially in the last 2/3 of the canal. To encourage more locations, **the next volunteer planting event is scheduled for June 29th, 2013 starting at 9am.** We are looking forward to seeing everyone and having another successful event. If you have any event questions or would like to sign up as a location please contact our SERV Program at serv@seminolecountyfl.gov or your community liaison, Brian Pelski at bpelski89@gmail.com.

Photo: Expanding native vegetation as result of the restoration events.



We observed several “alien eggs” in Springwood Waterway. These are freshwater bryozoans, or moss animals, that are made up of tiny aquatic invertebrates that forms a colony. Similar to sponges, they filter water for food. For more information on bryozoans, please visit <http://www.bio.umass.edu/biology/conn.river/bryozoa.html>.

Photo: Bryozoa found near end of canal. Multiple colonies are forming along the last half of canal.



Recommendations for waterbodies:

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. SCLMP staff would be glad to present our findings from this and other surveys. Continue to increase native aquatic plantings along shoreline (such as pickerelweed, duck potato and canna).

- 2 Consider increasing street sweeping services during times of peak leaf fall to ensure this debris does not wind up in your waterways. Leaf debris contains phosphorous that can impact your lakes.
- 3 Spring Wood Lake is in need of a LAKEWATCH volunteer which provides valuable water quality data for your lake. Contact Seminole County Lake Management Program at (407) 665-2439 to become a LAKEWATCH volunteer
- 4 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 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.

Greetings Spring Wood Lake and Springwood Waterway!

Please find the latest assessment for your lake below. Key highlights of this update will include:

- Hydrilla spot treatments in Spring Wood Lake and Springwood Waterway
- Emergent shoreline vegetation expansion
- **Next Springwood Waterway Restoration Event scheduled for June 29th, 2013**
- Recommendations for you and your waterbody

Spring Wood Lake

On **March 19th, 2013**, Seminole County Lake Management Program (SCLMP) staff Gloria Eby and Thomas Calhoun surveyed the aquatic plants in **Spring Wood Lake**.

Hydrilla was found during the inspection to a depth of 6 feet intermixed with the native vegetation. There were few monocultures (single-crop) of hydrilla found within the lake and at the entry to Lake Destiny. These monocultures were spot treated on the same day as inspection. We will continue to closely monitor hydrilla to determine if further management action is required.

Photo: Hydrilla found intermixed with stonewort and southern naiad.



Beneficial native SAV found during inspection included; southern naiad to 10 feet and lemon bacopa to 3 feet. Southern naiad continues to expand throughout the lake and is considered the dominant SAV.

Photo: Southern naiad to 10 feet.



Native aquatic vegetation such as duck potato, pickerelweed, maidencane, and native rushes are the dominant emergent vegetation within Spring Wood Lake. This is a product of the multiple lake wide restoration events combined with the routine maintenance of the MSBU funded aquatic herbicide contractor.

Photo: Pickerelweed expanding around the shoreline.



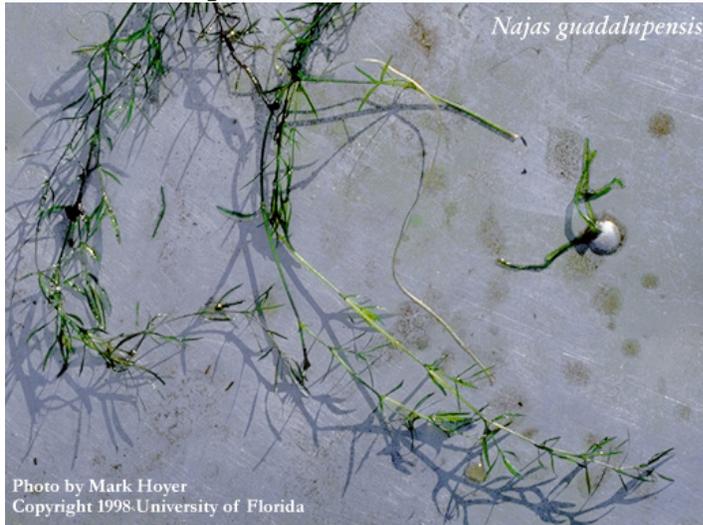
Secchi disc reading (a measurement for water clarity) was 9 feet in a depth of 24.3 feet; an increase from the last reading of 5 feet. A small school of grass carp fish was observed on the northeast shoreline during inspection.

On **April 2nd, 2013**, Seminole County Lake Management Program (SCLMP) staff Thomas Calhoun and Devin Whitney surveyed the aquatic plants of **Spring Wood Lake**.

Hydrilla was found to a depth of 6 feet. The monocultures previously found and treated on March 19th were showing impact from the herbicide treatment. We will continue to closely monitor hydrilla within the lake to see if any further treatments will be necessary.

Beneficial native SAV found during inspection included; southern naiad to 9 feet and lemon bacopa to 3 feet. Southern naiad has expanded lake wide and can be found around the docks in the lake. Native SAV plays an important role in the ecosystem of the lake by providing habitat for aquatic species and helping reduce nutrients within the water column.

Photo: Close up of southern naiad.



Native emergent aquatic vegetation found during the inspection included; rush fuirena, maidencane, pickerelweed, duck potato, fire flag and bulrush. Minimal torpedo grass was found during this inspection.

Photo: Typical shoreline found in Springwood Lake.



Secchi disc reading (a measurement for water clarity) was 7.4 feet in a depth of 22.8 feet; an decrease from the last reading of 9 feet. No grass carp fish were observed during inspection. A decrease in clarity can play a vital role in reducing hydrilla in deeper water as result of less sunlight available growth.

Springwood Waterway

On **March 19th, 2013**, Seminole County Lake Management Program (SCLMP) staff Gloria Eby and Thomas Calhoun surveyed the aquatic plants of **Springwood Waterway**.

Hydrilla was found in only one monoculture at the entrance to the canal. This patch was treated the same day as inspection.

Native submersed aquatic vegetation (SAV) observed included; lemon bacopa to a depth of 2 feet, road grass to 2 feet, stonewort to 2 feet and purple bladderwort to 2 feet. Stonewort and bladderwort are found in 1 to 3 foot mats along the bottom at the entrance of the waterway. The entrance to canal is navigable and does not require mechanical harvesting for access at this time.

Photo: Stonewort and bladderwort found at the entrance to the waterway.



As result of the multiple restoration events and the routine MSBU funded maintenance, native plants are expanding well especially in the last 2/3 of the canal. To encourage more locations, **the next volunteer planting event is scheduled for June 29th, 2013 starting at 9am.** We are looking forward to seeing everyone and having another successful event. If you have any event questions or would like to sign up as a location please contact our SERV Program at serv@seminolecountyfl.gov or your community liaison, Brian Pelski at bpelski89@gmail.com.

Photo: Expanding native vegetation as result of the July 2012 restoration event.



On **April 2nd, 2013**, Seminole County Lake Management Program (SCLMP) staff Thomas Calhoun and Devin Whitney surveyed the aquatic plants of **Springwood Waterway**.

Previously treated hydrilla (March 19th) was found to be impacted. No other hydrilla was found within the waterway.

The entrance to the canal was very shallow and hard to access at the time of inspection. Vegetation was not impeding access therefore mechanical harvesting is not required at this time. Native SAV observed included: lemon bacopa to a depth of 2 feet, road grass to 2 feet, stonewort to 2 feet, and purple bladderwort to 2 feet. Stonewort and bladderwort are found in 1-3 foot mats along the bottom at the entrance of the water way.

Photo: Stonewort and bladderwort found at the entrance to the waterway.



Photo: Expanding native vegetation as result of the July 2012 restoration event.



Recommendations for waterbodies:

- 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. SCLMP staff would be glad to present our findings from this and other surveys. Continue to increase native aquatic plantings along shoreline (such as pickerelweed, duck potato and canna).
- 2 Consider increasing street sweeping services during times of peak leaf fall to ensure this debris does not wind up in your waterways. Leaf debris contains phosphorous that can impact your lakes.
- 3 Spring Wood Lake is in need of a LAKEWATCH volunteer which provides valuable water quality data for your lake. Contact Seminole County Lake Management Program at (407) 665-2439 to become a LAKEWATCH volunteer
- 4 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 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.

Happy New Year Spring Wood Lake and Springwood Waterway!

Please find the latest assessment for your lake below. Key highlights include:

- Hydrilla updates- spot treatment in Spring Wood Lake and Springwood Waterway
- Submersed Aquatic Plant (SAV) updates
- Emergent shoreline vegetation
- Restoration event results - continued success and improvements
- Recommendations for you and your waterbody

Spring Wood Lake

On **January 8th 2013**, Seminole County Lake Management Program (SCLMP) staff Thomas Calhoun and Water Quality Staff Marie Lackey surveyed the aquatic plants of **Spring Wood Lake**.

The spot treatments that took place for hydrilla in shallow water on December 19th, 2012 were successful with hydrilla showing signs of impact. However, hydrilla in deeper water 6 to 9 feet has expanded since the previous inspection. Seminole County Lake Management Program will be purchasing and stocking triploid (sterile) grass carp in Spring Wood Lake. This with the expanding amount of the native vegetation southern naiad will hopefully hold off the hydrilla.

Photo: Impacted hydrilla found in Spring Wood Lake.



Beneficial native SAV found during inspection included: Stonewort to 5 feet, southern naiad to 10 feet, road grass to 6 feet, and lemon bacopa to 3 feet. Southern naiad is the dominant species found within Spring Wood Lake and will play an important role by competing for space with hydrilla.

Photo: Southern naiad.



Due to the success of the herbicide program, torpedo grass is no longer a major concern in Spring Wood Lake. Native vegetation, including duck potato, pickerelweed, and canna planted during the lake restoration events, is expanding in areas where torpedo grass once was.

Photo: Torpedo grass in 2010.



Photo: Native vegetation expanding along the shore of Spring Wood Lake.



Secchi disc reading (a measurement for water clarity) was 8 feet in a depth of 13.3 feet, an increase from the previous reading of 5.1 feet. No grass carp were observed during inspection.

Springwood Waterway

On **January 8th, 2013**, Seminole County Lake Management Program (SCLMP) staff Thomas Calhoun and Water Quality Staff Marie Lackey surveyed the aquatic plants of **Spring Wood Lake**.

The spot treatment for the back half of Springwood Waterway was very successful with almost no hydrilla found during the inspection. We will continue to monitor the area to see if further treatments will be needed.

Photo: Decomposing hydrilla.



The entrance to the canal was navigable with a depth of 3 to 4 feet and does not require mechanical harvesting to maintain access at this time. Stonewort and bladderwort were found in 2 to 3 feet mats along the bottom at the entrance of the waterway. Observed native SAV included: lemon bacopa to a depth of 2 feet, road grass to 2 feet, stonewort to 3 feet, and purple bladderwort to 3 feet.

Photo: Stonewort found at the entrance to Spring Wood Waterway.



Once again, the success from the July 14th restoration event was outstanding! This was our most successful event with as much as 90% of the vegetation surviving. Much of the waterway is now free of torpedo grass. This should encourage the planted native vegetation to expand even more.

Photo: Expanding native vegetation as result of the July 2012 restoration event.



Spring Wood Lake

On **November 16th, 2012**, Seminole County Lake Management Program (SCLMP) staff Thomas Calhoun and Devin Whitney surveyed the aquatic plants of **Spring Wood Lake**.

Hydrilla was found during the inspection to a depth of 10 feet intermixed with the native vegetation. Spring Wood Lake will be scheduled for spot treatment in several shallow areas around the lake in December.

Photo: Hydrilla found intermixed with stonewort and southern naiad.



Beneficial native SAV found during inspection included: Stonewort to 10 feet, southern naiad to 10 feet, and lemon bacopa to 3 feet. Southern naiad has expanded to the point that is now the dominant species in the lake.

Photo: Southern naiad.



Secchi disc reading was 5.1 feet in a depth of 10.1 feet; this was an increase from the previous reading of 4.9 feet. No grass carp were observed during inspection.

Springwood Waterway

On **November 16th, 2012**, Seminole County Lake Management Program (SCLMP) staff Thomas Calhoun and Devin Whitney surveyed the aquatic plants of **Springwood Waterway**.

Hydrilla was found in the back half of the waterway. Spot treatment will be scheduled for this area in December.

Observed native SAV included: lemon bacopa to a depth of 2 feet, road grass to 2 feet, stonewort to 3 feet, and purple bladderwort to 3 feet. Stonewort and bladderwort were found in 2 to 3 feet mats along the bottom at the entrance of the waterway. The entrance to canal was navigable and does not require mechanical harvesting to maintain access at this time.

Photo: Hydrilla found at the end of the waterway.



Native vegetation planted during the July 14th restoration event was in excellent condition! This was our most successful event with as much as 90% of the vegetation surviving. To continue to encourage expansion of the native plants, we recommend removing torpedograss once it has been treated.

Photo: Expanding native vegetation as result of the July 2012 restoration event.



Spring Wood Lake

On **October 2nd, 2012**, Seminole County Lake Management Program (SCLMP) staff Thomas Calhoun, Seminole County Water Quality Staff Marie Lackey, and FWC regional biologist C. J. Greene surveyed the aquatic plants of **Spring Wood Lake**.

Hydrilla was found during the inspection to a depth of 11 feet. It was reduced by approximately 50% since the previous survey; however, many tubers were still found. Most hydrilla was found in small sprigs and intermixed within the native vegetation. We will continue to closely monitor the expansion of hydrilla.

Photo: Example of hydrilla tubers found during inspection.



Beneficial native SAV found during inspection included: stonewort to 11 feet, southern naiad to 5 feet, and lemon bacopa to 2 feet. Stonewort was the dominant SAV observed during the inspection and was found topped out inshore along the north shore. Southern naiad was also expanding in much of the lake.

Photo: Southern naiad.



Secchi disc reading was 5.4 feet in a depth of 12.3 feet, an increase from the previous reading of 4.9 feet. No grass carp were observed during inspection.

Springwood Waterway

On **October 2nd, 2012**, Seminole County Lake Management Program (SCLMP) staff Thomas Calhoun, Seminole County Water Quality Staff Marie Lackey, and FWC regional biologist, C. J. Greene surveyed the aquatic plants of **Springwood Waterway**.

Hydrilla was found in the back half of the waterway. This area will continue to be monitored to see if any treatment will be needed.

Observed native SAV included: lemon bacopa to a depth of 2 feet, road grass to 2 feet, stonewort to 3 feet, and purple bladderwort to 3 feet. Stonewort and bladderwort were found in 2 to 3 feet mats along the bottom at the entrance of the waterway. The entrance to canal was navigable and does not require mechanical harvesting to maintain access at this time.

Photo: Stonewort found at the entrance to the waterway.



Native vegetation planted during the July 14th restoration event was in excellent condition! This was our most successful event with as much as 90% of the vegetation surviving. To continue to encourage expansion of the native plants we recommend removing torpedo grass once it has been treated.

Photo: Expanding native vegetation as result of the July 2012 restoration event.



Recommendations for waterbodies:

- 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. SCLMP staff will be glad to present findings from this and other surveys. Continue to increase native aquatic plantings along shoreline (such as pickerelweed, duck potato and canna).
- 2 Consider increasing street sweeping services during times of peak leaf fall to ensure that this debris does not end up in your waterways. Leaf debris contains phosphorous that can negatively impact your lakes.
- 3 Spring Wood Lake is in need of a LAKEWATCH volunteer; this would provide valuable water quality data for your lake. Contact the Seminole County Lake Management Program at (407) 665-2439 to become a LAKEWATCH volunteer.
- 4 Increase educational outreach programs such as Shoreline Restoration Workshops (planting days), Florida Yards and Neighborhoods (FYN), Lake Management Video mail-outs, and provide information about reduction of pointless personal pollution through low fertilizer

use, phosphorous free fertilizers, keeping a functional shoreline with beneficial native aquatic plants, and keeping grass clippings out of your storm drains that lead to the lake. All these activities aid in protecting your waterbody! Contact Seminole County Lake Management Program (407) 665-2439 about available **free** educational programs.

Greetings Spring Wood Lake and Springwood Waterway residents!

Please find the latest bioassessment for your waterbodies below. Our next assessment will be August 6th, weather permitting. Key highlights of this update include:

- Submersed Aquatic Vegetation (SAV) observed
- Hydrilla updates- less biomass observed
- Emergent shoreline vegetation- torpedo grass expansion observed however is being treated
- Springwood Waterway Restoration Event results (6/29/13)
- Recommendations for you and your waterbody
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Spring Wood Lake

On **July 2nd, 2013**, Seminole County Lake Management Program (SCLMP) staff, Gloria Eby and Thomas Calhoun, surveyed the aquatic plants in **Spring Wood Lake**.

Hydrilla was found to a depth of 7 feet in less biomass than in the previous inspection. Also, hydrilla was competing for space with other native SAV within the lake, including southern naiad. We will continue to closely monitor hydrilla within the lake to see if any further treatments will be necessary.

Photo: Hydrilla found in Spring Wood Lake.



Beneficial native SAV observed during inspection included: southern naiad to a depth of 7 feet, stonewort to 6 feet, baby's tears to 2 feet, bladderwort to 6 feet, and lemon bacopa to 4.5 feet. Southern naiad has expanded lake-wide and is now the dominant species. This is positive as this species plays an important role in the lake

ecosystem by providing habitat for aquatic species, helping reduce nutrients within the water column, and making it more difficult for hydrilla to establish by competing for space.

Photo: Southern naiad and stonewort.



Native emergent vegetation found during the inspection included: rush fuirena, maidencane, pickerelweed, duck potato, fire flag, and bulrush. Observed invasive emergent vegetation included: alligator weed, wild taro, and torpedo grass. Torpedo grass has expanded and will be targeted in several locations. In areas where the torpedo grass is mixed in with natives, it is recommended to hand remove around the natives to where the contractor can then treat the remaining torpedo grass; otherwise the natives would be impacted from the herbicides due to close proximity. The MSBU funded herbicide contractor will continue to target torpedo grass over the next scheduled service dates.

Photo: Torpedo grass found in Springwood Lake.



The secchi disc reading (a measurement for water clarity) was 6.7 feet in a depth of 24.4 feet; this was a decrease in clarity from the previous reading of 9 feet. No grass carp fish were observed during inspection.

Springwood Waterway

On **July 2nd, 2013**, SCLMP staff, Gloria Eby and Thomas Calhoun, surveyed the aquatic plants in **Springwood Waterway**.

The water elevation has risen to 87.4 feet on the lake chain, which was a 1.45 foot increase since the January reading of 85.95 feet. Vegetation was not impeding access in the waterway therefore mechanical harvesting is not necessary at this time. Observed native SAV included: lemon bacopa to a depth of 5 feet, southern naiad to 6 feet, road grass to 2 feet, stonewort to 3 feet, and purple bladderwort to 2 feet. Stonewort and bladderwort were found in wide mats along the bottom at the entrance of the waterway. No hydrilla was found within the waterway during this inspection.

Photo: Entrance to Springwood Waterway.



Both SCLMP and SERV Programs, with the help of Springwood Waterway residents, held a lake restoration event on Saturday, June 29th. Through the hard work of 61 volunteers at 11 sites we planted over 4,000 native aquatic plants (200 golden canna, 1300 duck potato, 60 fire flag, 40 soft rush, 2400 pickerelweed, 5 bulrush)! On behalf of Seminole County, thank you so much for your incredible effort! Special thanks go to Sarafaith Pekor and Brian Pelski who coordinated site locations and planted additional areas of the waterway!!

Photo: Native vegetation planted on the June 29th restoration event.



Photo: Shoreline immediately after restoration planting.



Recommendations for you and your waterbody:

- 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. SCLMP staff would be glad to present our findings from this and other surveys. Continue to increase native aquatic plantings along the shoreline (such as pickerelweed, duck potato, and canna).
- 2 Consider increasing street sweeping services during times of peak leaf fall to ensure that this debris does not enter your waterways. Leaf debris contains phosphorous that can negatively impact your waterbody.
- 3 Spring Wood Lake is in need of a LAKEWATCH volunteer; this volunteer would be trained to collect valuable water quality data for your lake. Contact Seminole County Lake Management Program at (407) 665-2439 to become a LAKEWATCH volunteer
- 4 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 reducing fertilizer use, and only using phosphorous-free fertilizers. 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 these activities aid in protecting your waterbody! Contact Seminole County Lake Management Program (407) 665-2439 about the availability of free educational programs.