

Greetings Spring Wood Lake and Springwood Waterway residents,

Please find the latest bioassessment report for your waterbody below. The next scheduled inspection of your waterbody will be **December 1<sup>st</sup> 2014**, weather permitting. Key highlights of this update include:

- Hydrilla update
- Status of Submersed Aquatic Vegetation (SAV)
- Lake Vegetation Index (LVI) results
- Status of shoreline emergent vegetation
- Hand removal of torpedo grass that is mixed in with natives
- Exotic apple snail eggs found in Springwood Waterway
- Lemon Bacopa in Springwood Waterway
- Recommendations for you and your lake

### **Spring Wood Lake**

On **July 1<sup>st</sup>, 2014**, Seminole County Lake Management Program (SCLMP) staff, Thomas Calhoun and Gloria Eby, surveyed the aquatic plants in **Spring Wood Lake**.

A few sprigs of hydrilla were found in Spring Wood Lake to a depth of 4 feet. There continues to be less hydrilla than in previous inspections. It is assumed that the grass carp fish and competition with native SAV is reducing the hydrilla within the lake. We will continue to closely monitor hydrilla and grass carp stocking rates within the lake.

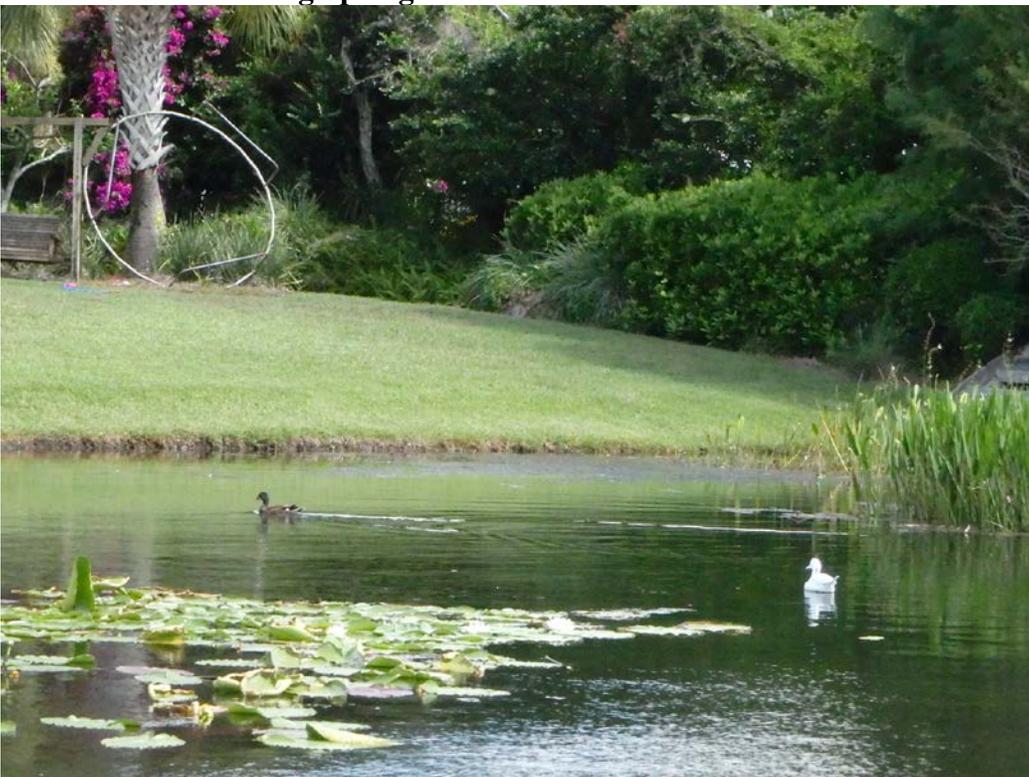
Spring Wood Lake has a healthy diversity of native submersed aquatic vegetation (SAV). The beneficial native SAV observed during the inspection included: lemon bacopa to 3 feet, Southern naiad to 7 feet, and bladderwort to 4 feet. Southern naiad is the dominant SAV within Springwood Lake and is currently playing an important role by competing for space with hydrilla.

**Photo: Close up of southern naiad.**



The observed invasive emergent vegetation included: alligatorweed, torpedo grass, and barn-yard grass. All of these species were found in small amounts. Native emergent vegetation has continued to expand around the lake. This vegetation included: pickerelweed, canna, fire flag, duck potato, and maidencane. Native emergent vegetation plays an important role in the ecosystem of the lake by reducing nutrients from runoff, reducing erosion, and providing habitat for wildlife. Invasive emergent vegetation (such as alligatorweed, cattails, wild taro, and torpedo grass) continues to be treated.

**Photo: Shoreline along Spring Wood Lake.**



The Secchi disc reading (a measurement for water clarity) was 7 feet in a depth of 11.3 feet; this was an increase in clarity from the previous reading of 6.1 feet. The water elevation at the time of inspection was 87.4 feet above sea level. No grass carp fish were observed during the inspection.

## **8-7-2014**

On **August 7<sup>th</sup>, 2014**, Seminole County Watershed Management Division staff (Thomas Calhoun, Gloria Eby, Joseph Cordell, and Marianne Pluchino) surveyed the aquatic plants in **Spring Wood Lake** and conducted a Lake Vegetation Index Assessment (LVI).

The LVI was created by the Florida Department of Environmental Protection as a rapid screening tool (bioassessment) for ecological condition; it determines how closely a lake's flora (aquatic plants) resembles that of an undisturbed lake.

Spring Wood Lake is 8.26 surface acres, and is located in the Little Wekiva watershed. Scores for Springwood Lake have ranged from 41 to 48. The LVI score for 2014 was 40, in the impaired range. This low score can be attributed to the presence of the invasive species; hydrilla.

### **Springwood Lake LVI scores**

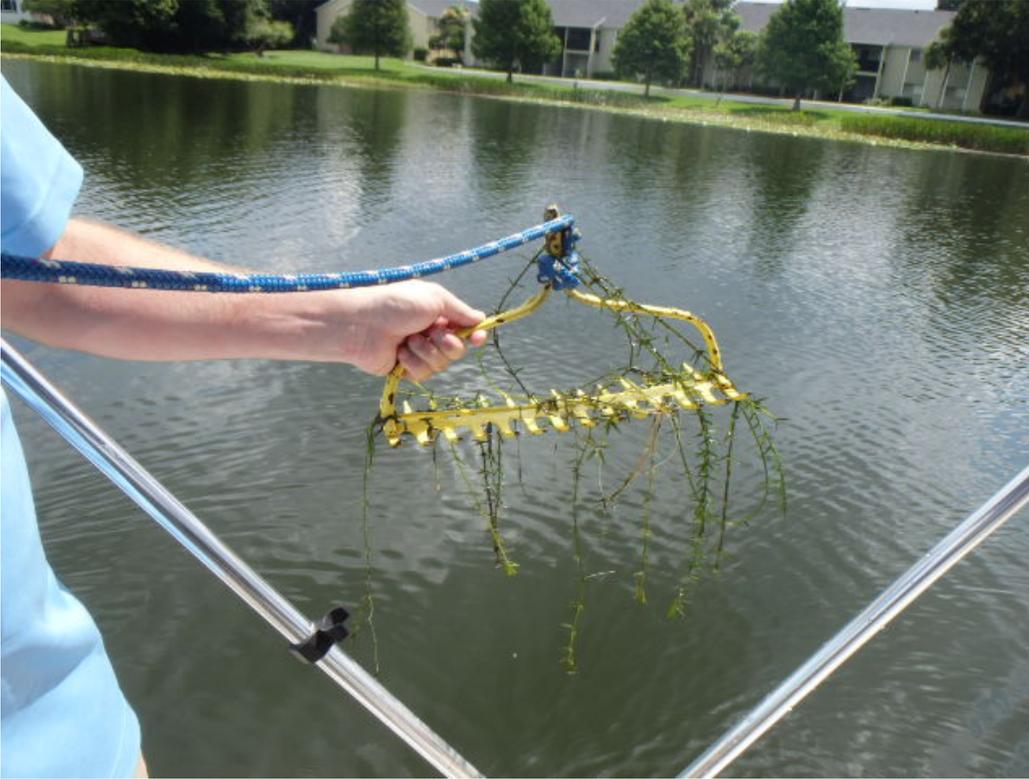
2011 - 41  
2013 - 48  
2014 - 40

<b>LVI Range</b>	<b>Description</b>
78-100	Exceptional
43-77	Healthy
0-42	Impaired

Sprigs of hydrilla were found in Spring Wood Lake to a depth of 3 feet. Although this depth is less than in the previous inspection, no treatment of hydrilla is required at this time.

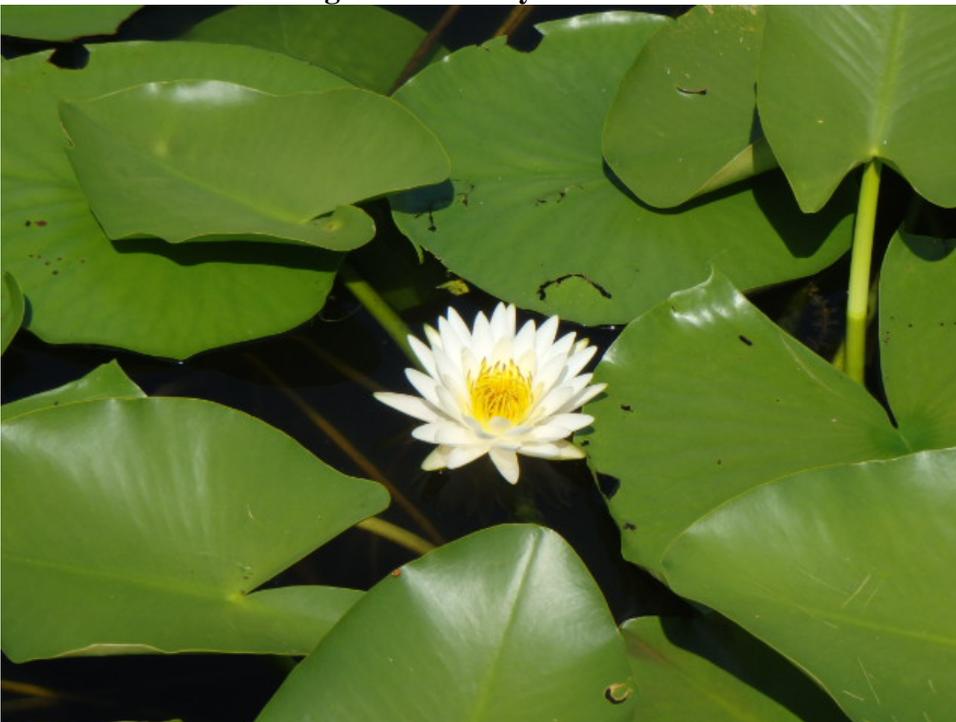
Spring Wood Lake has a healthy diversity of native submersed aquatic vegetation (SAV). Southern naiad was again the dominant species of SAV found to a depth of 10 feet. Other beneficial native SAV observed during the inspection included: lemon bacopa to 2 feet, roadgrass to 8 feet, and southern naiad to 10 feet.

**Photo: Typical length of hydrilla found during the inspection.**



Observed invasive emergent vegetation included: alligatorweed, torpedo grass, and barn-yard grass. All of these species were found in small amounts. Native emergent vegetation has continued to expand around the lake. This vegetation included: pickerelweed, canna, fire flag, duck potato, and maidencane. Native emergent vegetation plays an important role in the ecosystem of the lake by reducing nutrients from runoff, preventing erosion, and providing habitat for wildlife. Invasive emergent vegetation (such as alligator weed, cattails, wild taro, and torpedo grass) continues to be treated.

**Photo: Bloom of the fragrant water lily.**



The Secchi disc reading (a measurement for water clarity) was 5.6 feet in a depth of 10 feet; this was a decrease in clarity from the previous reading of 7 feet. The water elevation at the time of inspection was 87.4 feet above sea level. No grass carp fish were observed during the inspection.

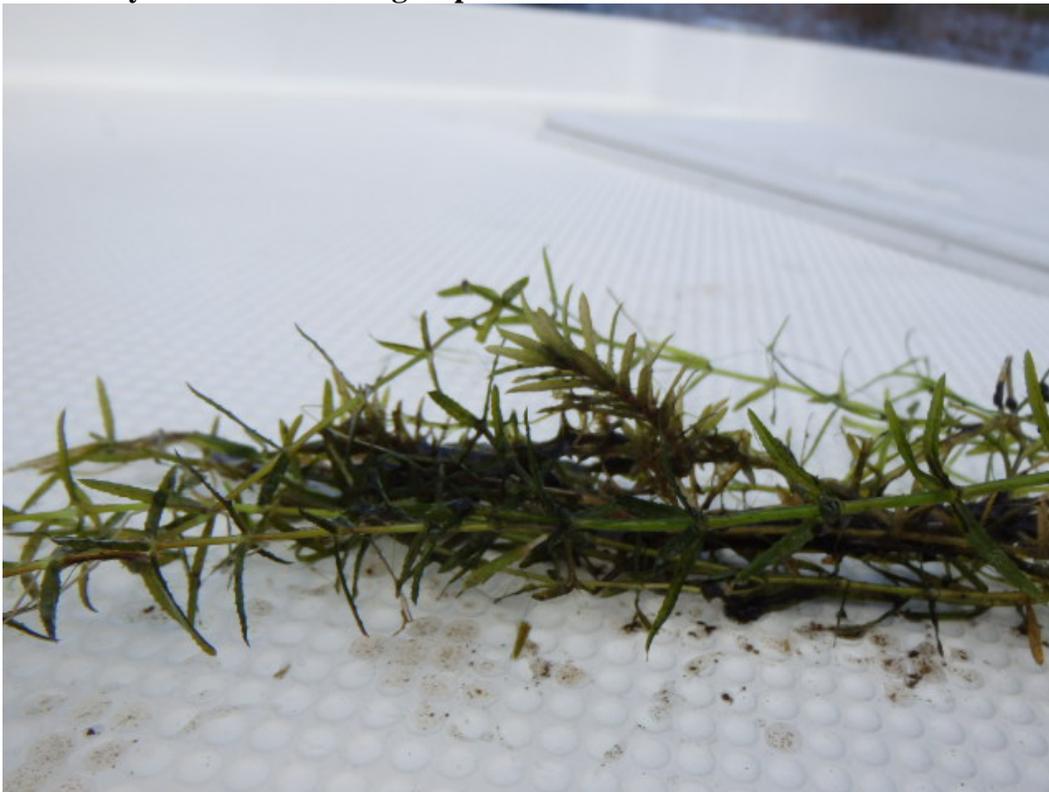
**11-4-2014**

On **November 4<sup>th</sup>, 2014**, SCLMP staff, Thomas Calhoun and Beth Stephens, surveyed the aquatic plants in **Spring Wood Lake**.

Hydrilla was present to a depth of 8 feet intermixed with the native vegetation. This is an increase from previous inspections. We will continue to closely monitor the impacts of the grass carp fish on hydrilla. Currently, no hydrilla treatments are required.

Native SAV found included: lemon bacopa to 4 feet, stonewort to 12 feet, and southern naiad to 12 feet. Both southern naiad and stonewort have expanded and are competing against hydrilla for space.

**Photo: Hydrilla found during inspection.**



The observed invasive emergent vegetation included: alligatorweed, torpedo grass, and barn-yard grass. All of these species were found in small amounts. Native emergent vegetation has continued to expand around the lake. This vegetation included: pickerelweed, canna, fire flag, duck potato, and maidencane. A small algae bloom was present at the stormwater input on the east side of the lake.

**Photo: Algae at stormwater input.**



The Secchi disc reading (a measurement for water clarity) was 6.9 feet in a depth of 11.8 feet; this was an increase in clarity from the previous reading of 5.6 feet. The water elevation at the time of inspection was 87.20 feet above sea level. One grass carp fish was observed during the inspection.

### **Springwood Waterway**

On **July 1<sup>st</sup>, 2014**, SCLMP staff, Thomas Calhoun and Gloria Eby, surveyed the aquatic plants in **Springwood Waterway**.

**No hydrilla** was found in Springwood Waterway during this inspection.

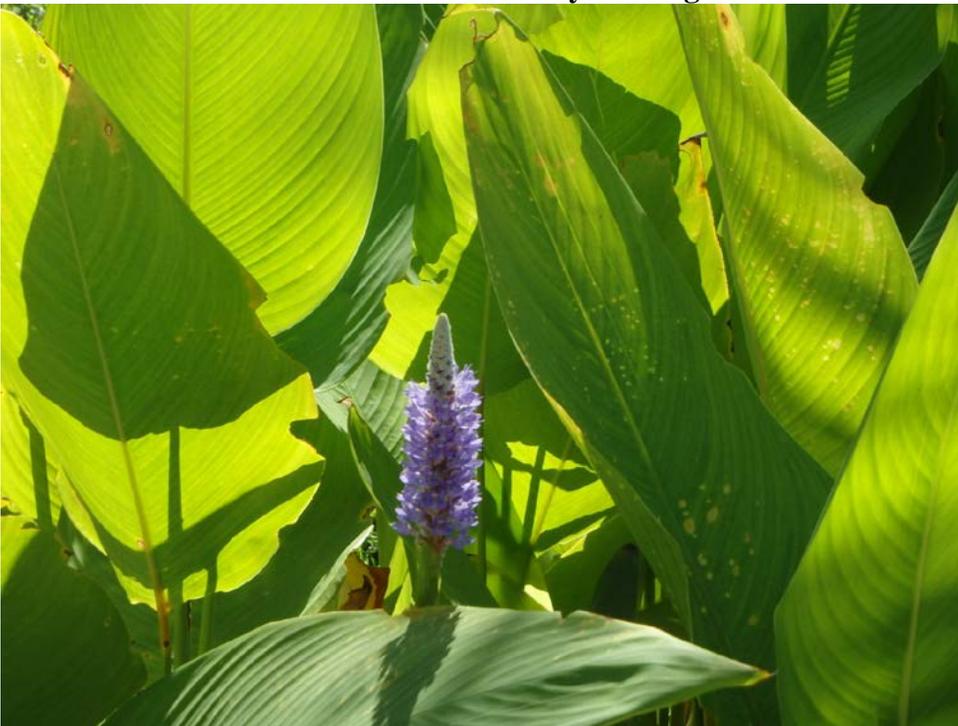
Native SAV is expanding in the waterway. These species included: lemon bacopa, stonewort, southern naiad, and bladderwort. Lemon bacopa has expanded along the majority of the banks within the waterway and is reaching the surface in many areas. The waterway was found to be open and navigable; therefore, mechanical harvesting is not needed at this time.

**Photo: Stonewort (top) and southern naiad (bottom).**



Native emergent vegetation continues to be found in many locations, in good condition, and expanding! The exotic vegetation, such as torpedo grass, alligator weed, and elephant ear, will continue to be targeted by the MSBU funded herbicide contractor. As native emergent plants expand, we recommend hand removing any torpedo grass that is found mixed within them.

**Photo: Pickerelweed bloom surrounded by fire flag.**



The invasive exotic Island Apple snail eggs were found in Springwood Waterway during the inspection. Due to their high rate of reproduction, they have the potential to negatively impact the ecosystem of the lakes and canal. They have been known to decimate aquatic plant populations in other areas. The best method of control

is hand removal of the large adult snails and scraping and crushing the egg clutches (clusters). Please only remove the bright pink egg clutches. More information can be found on the FWC website here [http://myfwc.com/media/673720/FWC\\_applesnails\\_FLMS\\_handout.pdf](http://myfwc.com/media/673720/FWC_applesnails_FLMS_handout.pdf).

**Photo:** **Exotic** snail eggs on left (bright pink with small eggs), **native** apple eggs snail on right (white to peachy white with larger eggs).



**8-7-2014**

On **August 7<sup>th</sup>, 2014**, Seminole County Watershed Management Division staff (Thomas Calhoun, Gloria Eby, Joey Cordell, and Marianne Pluchino) surveyed the aquatic plants in **Springwood Waterway**.

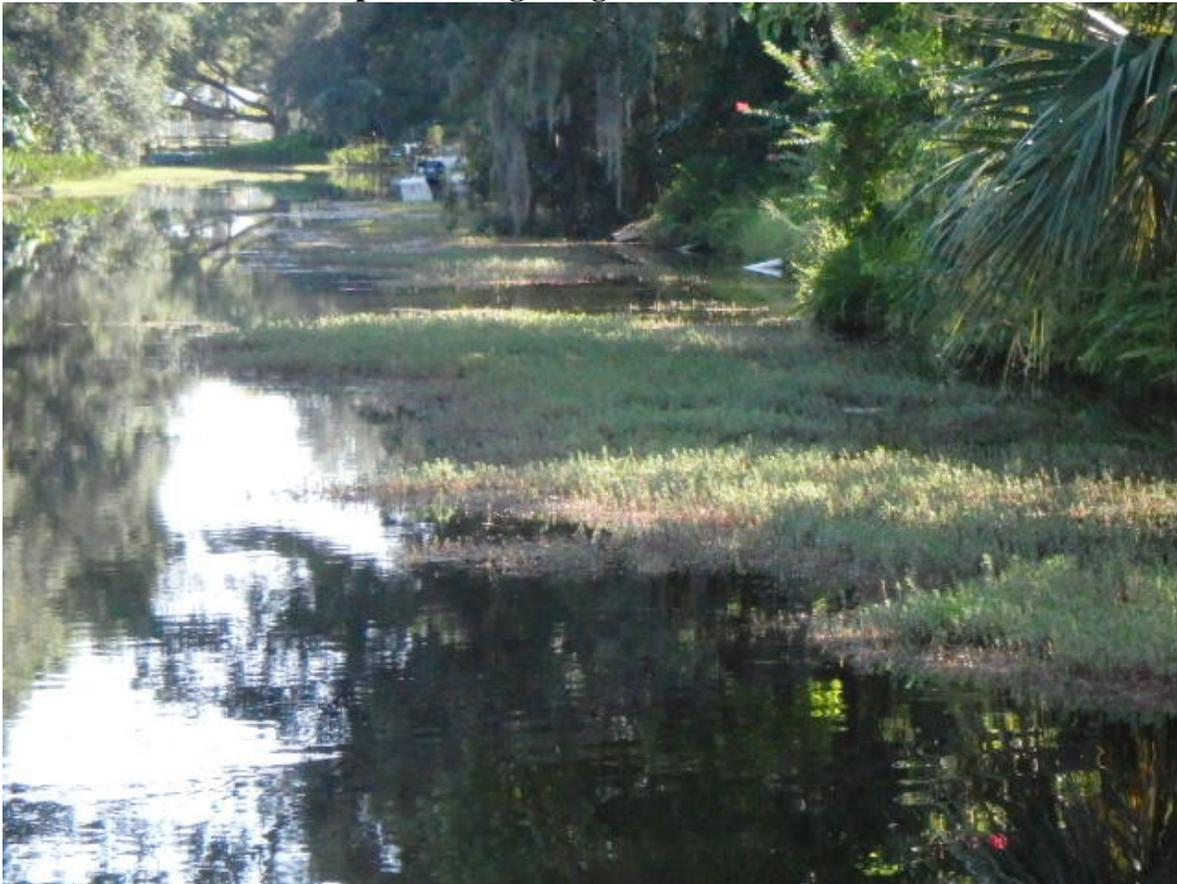
No hydrilla was found in Springwood Waterway during this inspection.

Lemon bacopa has expanded throughout the waterway. Lemon bacopa is **beneficial native** aquatic vegetation that is known by the lemony scent of its crushed leaves. It will only be treated if the waterway becomes unnavigable. The waterway was observed to be open and navigable; therefore, mechanical harvesting is not needed at this time.

**Photo: Close-up of lemon bacopa.**



**Photo: Native lemon bacopa surfacing along the banks of the canal.**



Native emergent vegetation continues to be found in many locations, in good condition, and expanding! The exotic vegetation, such as torpedo grass, alligatorweed and elephant ear, will continue to be targeted by the MSBU funded herbicide contractor. As native emergent plants expand, we recommend hand removing any torpedo grass that is found mixed within.

#### **11-4-2014**

On **November 4<sup>th</sup>, 2014**, SCLMP staff, Thomas Calhoun and Beth Stephens, surveyed the aquatic plants in **Springwood Waterway**.

Hydrilla was found in very small amounts in the back half of the canal. We will continue to monitor to see if any treatment will be necessary.

Lemon bacopa continues to expand along the majority of the banks within the waterway and is reaching the surface in many areas. The waterway was found to be open and navigable; therefore, mechanical harvesting is not needed at this time. Native SAV found included: roadgrass, stonewort, southern naiad, and 2 types of bladderwort. Harvesting is not necessary at this time.

**Photo: Lemon bacopa reaching the surface.**



**Photo: Close up of southern naiad.**



Native emergent vegetation continues to be found in many locations, in good condition, and expanding! To ensure the success of the native vegetation we recommend to hand remove torpedo grass.

**Photo: Duck potato expanding along the shoreline.**



## **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 Seminole County or state biologists) and discuss lake-specific issues, especially nutrient/lake management recommendations. SCLMP staff would be glad to present our findings from this and other surveys. Also 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 Take advantage of free educational outreach programs i.e. Shoreline Restoration Workshops (planting days), Florida Yards and Neighborhoods (FYN), Lake Management Video mail-outs, and presentations on decreasing “pointless personal pollution” by reducing fertilizer use and only using phosphorous-free fertilizers. Contact Seminole County Lake Management Program (407) 665-2439 to inquire about the availability of these programs. You can also visit the Water Atlas (<http://www.seminole.wateratlas.usf.edu/>) to read interesting information about your specific waterway, and our website ([http://www.seminolecountyfl.gov/pw/roadstorm/wq\\_lakemgt.aspx](http://www.seminolecountyfl.gov/pw/roadstorm/wq_lakemgt.aspx)) to watch educational videos and download lake management pamphlets.
- 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 stormdrains that lead to the lake. All of these activities aid in protecting your waterbody! Please share this newsletter with any new residents or those not currently on our email list. These assessments contain valuable information!

Greetings Spring Wood Lake and Springwood Waterway residents,

Please find the latest bioassessment report for your lake below. The next scheduled inspection of your lake will be **July 1st**; weather permitting. Key highlights of this update include:

- Hydrilla update- decrease observed for the waterways
- Status of Submersed Aquatic Vegetation (SAV)
- Status of shoreline emergent vegetation
- Hand removal of torpedo grass that is mixed in with natives
- Recommendations for you and your lake

### **Spring Wood Lake**

On **April 8<sup>th</sup>, 2014**, Seminole County Lake Management Program (SCLMP) staff, Thomas Calhoun and Joey Cordell, surveyed the aquatic plants of **Spring Wood Lake**.

A small amount of hydrilla was found in Spring Wood Lake to a depth of 6 feet. The current amount of hydrilla does not require any action from the Lake Management Program. We will continue to closely monitor hydrilla within the lake.

**Photo: Example of southern naiad on left and hydrilla on right.**



Native SAV was found to have expanded in Spring Wood Lake. Southern naiad was the dominant species of SAV found to a depth of 8 feet. Other beneficial native SAV observed during the inspection included: lemon bacopa to 3 feet, baby's tears to 1 foot, and road grass to 3 feet.

These plants are playing an important role in competition for space with hydrilla. Native vegetation, together with the introduction of the triploid (sterile) grass carp fish, has prevented the recurrence of hydrilla compared to previous years.

**Photo: Typical grab of southern naiad to a depth of 8 feet.**



Native emergent vegetation has continued to expand around the lake. This vegetation includes pickerelweed, duck potato, and maidencane. Invasive emergent vegetation, such as alligator weed, wild taro, and torpedo grass, continues to be treated by the MSBU funded herbicide contractor.

**Photo: Pickerelweed blooming.**



The Secchi disc reading (a measurement for water clarity) was 8.5 feet in a depth of 11 feet; this was an increase in clarity from the previous reading of 7.9 feet. The water elevation at the time of inspection was 86.86 feet above sea level. No grass carp fish were observed during the inspection.

### **Springwood Waterway**

On **April 8<sup>th</sup>, 2014**, Seminole County Lake Management Program (SCLMP) staff, Thomas Calhoun and Joey Cordell, surveyed the aquatic plants of **Springwood Waterway**.

Treatment for hydrilla was conducted Thursday, March 20<sup>th</sup> in the back half of the waterway. During the inspection hydrilla was showing signs of impact from the treatment. We will continue to monitor hydrilla to see if any further actions will be necessary. The waterway was observed open and navigable therefore mechanical harvesting is not needed at this time.

**Photo: Hydrilla showing impacts of treatment.**



Native emergent vegetation is doing very well throughout the waterway and is recovering/expanding from the “winter die back”. Sites from the June 29<sup>th</sup> restoration event have established and are beginning to expand very nicely. Kudos to all who have made this so successful!

**Photo: Pickerelweed showing “winter die back” (left). Recovered/expanding vegetation (right).**



### **Spring Wood Lake**

On **May 6<sup>th</sup>, 2014**, Seminole County Lake Management Program (SCLMP) staff, Thomas Calhoun and Gloria Eby, with Stephen Fussell (Seminole County’s Office of Organizational Development), surveyed the aquatic plants of **Spring Wood Lake**.

A few sprigs of hydrilla were found in Spring Wood Lake to a depth of 9 feet. This was a lesser amount than in the previous inspections. It is assumed that the grass carp fish and competition with native SAV is reducing the hydrilla within the lake. We will continue to closely monitor hydrilla within the lake.

Spring Wood Lake has a healthy diversity of native submersed aquatic vegetation (SAV). Southern naiad was the dominant species of SAV found to a depth of 6 feet. Other beneficial native SAV observed during the inspection included: lemon bacopa to 3 feet, baby’s tears to 1 foot, stonewort to 5 feet, and road grass to 3 feet.

**Photo: Hydrilla mixed in with southern naiad.**



Native emergent vegetation has continued to expand around the lake. This vegetation includes: pickerelweed, canna, fire flag, duck potato, and maidencane. Native emergent vegetation plays an important role in the ecosystem of the lake by reducing nutrients from runoff, preventing erosion, and providing habitat for wildlife. Invasive emergent vegetation (such as alligator weed, cattails, wild taro, and torpedo grass) continues to be treated.

**Photo: Pickerelweed creates a great shoreline buffer.**



The Secchi disc reading (a measurement for water clarity) was 6.1 feet in a depth of 11 feet; this was an increase in clarity from the previous reading of 8.5 feet. The water elevation at the time of inspection was 87.05 feet above sea level. No grass carp fish were observed during the inspection.

### **Springwood Waterway**

On **May 6<sup>th</sup> 2014**, Seminole County Lake Management Program (SCLMP) staff, Thomas Calhoun and Gloria Eby, with Stephen Fussell (Seminole County's Office of Organizational Development), surveyed the aquatic plants of **Springwood Waterway**.

Treatment for hydrilla was conducted Thursday, March 20<sup>th</sup> in the back half of the waterway. All hydrilla found during this inspection was heavily impacted by the treatment and is anticipated to die. We will continue to monitor hydrilla to see if any further actions will be necessary.

**Photo: Hydrilla showing impacts of treatment.**



Native SAV is expanding in the waterway. These species includes lemon bacopa, stonewort, and bladderwort. Lemon bacopa has expanded along the majority of the banks within the waterway and is reaching the surface in many areas. The waterway was observed open and navigable therefore mechanical harvesting is not needed at this time.

**Photo: Lemon bacopa.**



Native emergent vegetation continues to be found in many locations, in good condition, and expanding! The exotic vegetation, such as torpedo grass, alligator weed and elephant ear, will continue to be targeted by the MSBU funded herbicide contractor. As native emergent plants expand, we recommend hand removing any torpedo grass that is found mixed within.

**Photo: Example of torpedo grass (highlighted) mixed in with duck potato.**



**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 Seminole 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. Also 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 Take advantage of free educational outreach programs i.e. Shoreline Restoration Workshops (planting days), Florida Yards and Neighborhoods (FYN), Lake Management Video mail-outs, and presentations on decreasing “pointless personal pollution” by reducing fertilizer use and only using phosphorous-free fertilizers. Contact Seminole County Lake Management Program (407) 665-2439 to inquire about the availability of these programs. You can also visit the Water Atlas (<http://www.seminole.wateratlas.usf.edu/>) to read interesting information about your specific waterway, and our website ([http://www.seminolecountyfl.gov/pw/roadstorm/wq\\_lakemgt.aspx](http://www.seminolecountyfl.gov/pw/roadstorm/wq_lakemgt.aspx)) to watch educational videos and download lake management pamphlets.
- 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 stormdrains that lead to the lake. All of these activities aid in protecting your waterbody! Please share this newsletter with any new residents or those not currently on our email list. These assessments contain valuable information!

Greetings Spring Wood Lake and Springwood Waterway residents,

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

- Hydrilla updates
- Status of Submersed Aquatic Vegetation (SAV)
- Status of shoreline emergent vegetation
- Recommendations for you and your lake

### **Spring Wood Lake**

On **March 4<sup>th</sup>, 2014**, Seminole County Lake Management Program (SCLMP) staff, Thomas Calhoun and Gloria Eby surveyed the aquatic plants of **Spring Wood Lake**.

A small amount of Hydrilla was found in Springwood Lake to a depth of 6.5 feet and tubers found to a depth of 9 feet. Hydrilla tubers can be found throughout the sediment and can lay dormant for several years. Currently the amount of hydrilla found doesn't require any action from the Lake Management Program. We will continue to closely monitor hydrilla within the lake.

**Photo: Hydrilla found mixed in with native SAV southern naiad.**



Native SAV was found expanding in Springwood Lake. Southern naiad is the dominant species of SAV found to a depth of 10 feet. Other beneficial native SAV observed during the inspection included: lemon bacopa to 3 feet, road grass to 4 feet, and stonewort to 5 feet. These plants are playing an important role in competition for space with hydrilla. This factored in with the triploid (sterile) grass carp, hydrilla is not recurring as much as in previous years.

**Photo: Southern naiad and stonewort found in thick mats along the bottom.**



Springtime has native emergent vegetation expanding around Springwood Lake. This vegetation included: rush fuirena, maidencane, pickerelweed, duck potato, fire flag, and bulrush. Invasive emergent vegetation has been reduced greatly around the lake. This has allowed pickerel weed and other native vegetation to fill in very nicely. Observed invasive emergent vegetation included: alligator weed, wild taro, and torpedo grass.

**Photo: Treated torpedo grass and alligator weed.**



The Secchi disc reading (a measurement for water clarity) was 7.9 feet in a depth of 10.5 feet; this was an increase in clarity from the previous reading of 7.6 feet. The water elevation at the time of inspection was 86.75 feet above sea level. No grass carp were observed during the inspection.

### **Springwood Waterway**

On **March 4<sup>th</sup>, 2013**, Seminole County Lake Management Program (SCLMP), staff Thomas Calhoun and Gloria Eby surveyed the aquatic plants of **Springwood Waterway**.

The exotic SAV hydrilla was found throughout the back half of the waterway at the time of inspection. Treatment for the hydrilla was scheduled for Thursday March 20<sup>th</sup>.

**Photo: Up close example of Hydrilla.**



Eight SAV were found during this inspection 7 native and 1 exotic. Observed native SAV included: lemon bacopa to a depth of 3 feet, road grass to 3 feet, baby's tears to 1 foot, eelgrass to 2 feet, stonewort to 4 feet, and 2 bladderworts to 4 feet. Native SAV are expanding in the waterway. Bladderwort and stonewort are reaching the surface around many docks along the first half of the waterway. However the waterway is still navigable. We will continue to monitor the canal to see if it requires mechanical harvesting; at this time it is not necessary.

**Photo: Nitella and bladderwort growing along the bottom of the waterway.**



Native emergent vegetation is doing very well throughout the waterway with some “winter die back” observed. Sites from the June 29<sup>th</sup> restoration event have established and are beginning to expand very nicely.

**Photo: Pickerel weed showing “winter die back”.**



### **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 Seminole 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. Also 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 Take advantage of free educational outreach programs i.e. Shoreline Restoration Workshops (planting days), Florida Yards and Neighborhoods (FYN), Lake Management Video mail-outs, and presentations on decreasing “pointless personal pollution” by reducing fertilizer use and only using phosphorous-free fertilizers. Contact Seminole County Lake Management Program (407)

665-2439 to inquire about the availability of these programs. You can also visit the Water Atlas (<http://www.seminole.wateratlas.usf.edu/>) to read interesting information about your specific waterway, and our website ([http://www.seminolecountyfl.gov/pw/roadstorm/wq\\_lakemgt.aspx](http://www.seminolecountyfl.gov/pw/roadstorm/wq_lakemgt.aspx)) to watch educational videos and download lake management pamphlets.

5. 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 stormdrains that lead to the lake. All of these activities aid in protecting your waterbody! Please share this newsletter with any new residents or those not currently on our email list. These assessments contain valuable information!

Greetings Spring Wood Lake and Springwood Waterway residents,

Please find the latest bioassessment report for your lake below. Our next scheduled survey will be March 4th weather permitting. Key highlights of this update will include:

- Hydrilla status- expansion in canal observed, reduction in lake observed
- Status of Submersed Aquatic Vegetation (SAV)
- Status of shoreline emergent vegetation
- Hand removal of torpedo grass around native emergent vegetation
- Recommendations for you and your lake

### **Spring Wood Lake**

On **December 4<sup>th</sup>, 2013**, Seminole County Lake Management and Water Quality Program staff (Thomas Calhoun, Marie Lackey, and Michelle Shelton) surveyed the aquatic plants in **Spring Wood Lake**.

A small amount of hydrilla was found in Spring Wood Lake to a depth of 7 feet. This small amount does not require any action from the Lake Management Program at this time. Hydrilla will continue to be closely monitored to see if any action is needed.

Large amounts of southern naiad are carpeting the bottom of the lake to a depth of 10 feet. This plant is playing an important role in competing for space with hydrilla as well as providing habitat for wildlife and reducing nutrients that can cause algae blooms within the lake. This factored in with the triploid (sterile) grass carp fish has allowed for a reduction in the re-occurrence/re-growth of hydrilla within the lake as compared to previous years. Other beneficial native SAV observed during this inspection included: lemon bacopa to 2 feet, road grass to 4 feet, and stonewort to 4 feet.

**Photo: Southern naiad found in dense mats along the bottom of Spring Wood Lake.**



The access corridors remained open and maintained. These corridors are created to provide a small access from the shoreline to open water for navigational and recreational use. Observed invasive emergent vegetation included alligator weed, wild taro, and torpedo grass. Observed native emergent vegetation included: rush fuirena, maidencane, pickerelweed, duck potato, fire flag, and bulrush. Invasive emergent vegetation has been greatly reduced around the lake which has allowed pickerelweed and other native vegetation to fill in very nicely.

**Photo: Treated torpedo grass and alligator weed within Spring Wood Lake.**



The Secchi disc reading (a measurement for water clarity) was 8.4 feet in a depth of 10.2 feet; this was an increase in clarity from the previous reading of 7.6 feet. The water elevation at the time of inspection was 86.96 feet above sea level. One grass carp fish was observed during this inspection.

### **Springwood Waterway**

On **December 4<sup>th</sup>, 2013**, Seminole County Lake Management and Water Quality Program staff (Thomas Calhoun, Marie Lackey, and Michelle Shelton) surveyed the aquatic plants in **Springwood Waterway**.

The exotic SAV hydrilla was found in patches throughout the back half of the waterway. These patches have slightly expanded since the previous inspection. At this time, treatment for hydrilla is not necessary. We will closely watch this area for further growth and treatment needs.

**Photo: Lemon bacopa strand (left) compared to a hydrilla sprig (right).**



Eight different SAV species were found during this inspection; seven native and one exotic. Observed native SAV included: lemon bacopa to a depth of 4 feet, road grass to 3 feet, baby's tears to 1 foot, eelgrass to 2 feet, stonewort to 3 feet, and two bladderworts to 4 feet. Southern naiad and nitella are both expanding throughout the canal. Bladderwort and stonewort are reaching the surface around many docks along the first half of the waterway; however the waterway is still navigable. We will continue to monitor the canal to see if it requires mechanical harvesting; at this time it is not necessary.

**Photo: Example of southern naiad in Springwood Waterway.**



Native emergent vegetation is doing very well throughout the waterway. Sites from the June 29<sup>th</sup> restoration event have established and are beginning to expand very nicely. As the native vegetation expands it may become difficult for the herbicide contractor to treat invasives without impact to the native vegetation. It is recommended that torpedo grass be hand pulled in these areas.

**Photo: Example of torpedo grass intermixed with duck potato that should be hand pulled.**



### **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 Seminole 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. Also 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 Take advantage of free educational outreach programs i.e. Shoreline Restoration Workshops (planting days), Florida Yards and Neighborhoods (FYN), Lake Management Video mail-outs, and presentations on decreasing “pointless personal pollution” by reducing fertilizer use and only using phosphorous-free fertilizers. Contact Seminole County Lake Management Program (407) 665-2439 to inquire about the availability of these programs. You can also visit the Water Atlas (<http://www.seminole.wateratlas.usf.edu/>) to read interesting information about your specific waterway, and our website ([http://www.seminolecountyfl.gov/pw/roadstorm/wq\\_lakemgt.aspx](http://www.seminolecountyfl.gov/pw/roadstorm/wq_lakemgt.aspx)) to watch educational videos and download lake management pamphlets.
- 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 stormdrains that lead to the lake. All of these activities aid in protecting your waterbody! Please share this newsletter with any new residents or those not currently on our email list. These assessments contain valuable information!