Greetings Springwood Lake and Springwood Waterway!

Please find the latest assessment for your lake below. Next assessment will be October 2nd; weather permitting. Key highlights of this update will include:

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

**Spring Wood Lake**

On **September 4th, 2012**, Seminole County Lake Management Program (SCLMP) staff Thomas Calhoun, Gloria Eby, 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 10 feet intermixed within the native vegetation. Hydrilla has again expanded since the previous inspection. Additionally observed was the potato-like tubers generating these new hydrilla plants. Many tubers were found within the plant samples taken during this inspection. Hydrilla tubers can remain viable in lake sediments for over 4 years. Deep water chemical spot treatments are scheduled for November as well as plans to stock additional triploid (sterile) grass carp fish. We will continue to closely monitor the expansion of hydrilla keeping the community informed and updated.

**Photo: Hydrilla found during inspection.**
Photo: Example of hydrilla tubers found during inspection.
Beneficial native SAV found during inspection included; nitella to 5 feet, southern naiad to 5 feet, baby’s-tears to 1 foot, and lemon bacopa to 5 feet. Nitella was the dominant SAV observed during the inspection and was found topped out inshore along the north shore. Southern naiad was also noted to be expanding in many areas of the lake.

Photo: Nitella and southern naiad.
Many of the native plants installed from recent restoration events on Spring Wood Lake continue to expand and do well. Torpedo grass and cattails continue to be treated by the Seminole County contractor via the MSBU. To allow for further expansion of the planted native vegetation, it is recommended that torpedo grass is removed once it has been treated.

**Photo:** Site from the spring restoration event; plants expanding well.
Secchi disc reading (a measurement for water clarity) was 4.9 feet in a depth of 11.7 feet; a decrease from the last reading of 5.9 feet. No grass carp fish were observed during inspection.

In efforts to reduce transportation of exotics in/out of your lake, SCLMP will be installing an educational campaign sign at the boat ramp on Lake Destiny Trail. These signs are designed to educate boaters on the potential of transporting nuisance species that can be costly to manage (such as hydrilla). Image of sign is below.

**Photo:** Image of educational campaign sign provided by SCLMP.
**Springwood Waterway**

On **September 4th, 2012**, Seminole County Lake Management Program (SCLMP) staff Thomas Calhoun, Gloria Eby, Marie Lackey and FWC regional biologist, C.J. Greene, surveyed the aquatic plants of **Springwood Waterway**.

Native vegetation planted during the July 14th restoration event is in excellent condition. This was our most successful event with as much as 90% of the vegetation surviving. **KUDOS to the residents contributing to this great success!** 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.
Native submersed aquatic vegetation (SAV) observed included: lemon bacopa to a depth of 2 feet, road grass to 2 feet, nitella to 3 feet and purple bladderwort to 3 feet. Stonewort and bladderwort are found in 2 to 3 ft mats along the bottom at the entrance of the waterway. At this time the entrance to canal is navigable and does not need mechanical harvesting for access. The invasive exotic hydrilla was not observed for the second month in a row.

Photo: Nitella and bladderwort found at the entrance to the waterway.
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 pointless personal pollution by using low fertilizer use; phosphorous free 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 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 assessments for your waterbody below. Our next inspection will be September 4th, weather permitting. Key highlights of this update will include:

- “Stop Aquatic Hitchhikers” educational campaign sign
- Hydrilla observations/updates
- Submersed Aquatic Vegetation (SAV) updates
- Results from the Springwood Waterway restoration event held on July 14th
- Recommendations for you and your waterbody

On August 7th, 2012, Seminole County Lake Management Program (SCLMP) staff, Thomas Calhoun and Marie Lackey, surveyed the aquatic plants of Spring Wood Lake.

Hydrilla was found to a depth of 8 feet intermixed within native SAV. Hydrilla was found to be expanding to deeper water depths and in more frequent locations than in previous inspection. With the addition of 88 triploid (sterile) grass carp fish introduced into the system this past year, we will continue to keep a close eye on hydrilla growth over the next several months evaluating if spot treatments will be necessary.

In efforts to reduce transportation of exotics in/out of your lake, SCLMP will be installing an educational campaign sign at the boat ramp on Lake Destiny Trl. These signs are designed to educate boaters on the potential of transporting nuisance species that can be costly to manage (such as hydrilla). Image of sign is below.

Photo: Image of educational campaign sign provided by SCLMP.
Native vegetation found during inspection included stonewort to 6 feet, baby tears to 1 foot, and lemon bacopa to 1 foot. Stonewort was the dominant SAV observed during the inspection and was found in large mats along the bottom of the lake.

Many of the native plants installed from the recent restoration events on Spring Wood Lake continue to expand and do well. Torpedo grass and cattails continue to be treated by the Seminole County herbicide contractor via the MSBU. To allow for further expansion of the planted native vegetation, it is recommended that torpedo grass be removed once it has been treated.
Secchi disc reading (a measurement for water clarity) was 4.6 feet in a depth of 11.1 feet; a decrease from the last reading of 5.9 feet. No grass carp fish were observed during this inspection.

**Springwood Waterway**

On **August 7th, 2012**, Seminole County Lake Management Program (SCLMP) staff, Thomas Calhoun and Marie Lackey, surveyed the aquatic plants of **Springwood Waterway**.

The **Springwood Waterway 2012 Restoration Event** was held on Saturday, July 14th. Approximately 80 volunteers turned out to plant 4000 pickerelweed, 2000 duck potato, 100 canna lily, 200 fire flag (thalia) as well as soft rush, bur-marigold, iris, and bulrush. A fantastic time was had by all and a hotdog lunch (provided by the residents) was enjoyed afterwards. The majority of these plants are establishing and expanding very well. To help insure these plants survive please replant any plants that have “popped up”.

**Photo: Restoration site in Springwood Waterway looking very healthy.**

Native submersed aquatic vegetation (SAV) observed 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 are found in 2 to 3 foot mats along the bottom at the entrance of the waterway.
The invasive exotic hydrilla was not observed for the third month in a row. The water elevation is currently too low to bring in the mechanical harvester to remove the SAV at the entrance of the canal.

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

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**Recommendations for your 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 and Lake Destiny are in need of LAKEWATCH volunteers. This free program provides vital monthly data on nutrient levels for your lake which currently is not being collected. Volunteers would need to collect monthly water samples and submit to a local drop-off location in Altamonte Springs. Contact Seminole County Lake Management Program at (407) 665-2439 for more information.

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 pointless personal pollution by using low fertilizer use; phosphorous free 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 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 waterbody below. Key highlights of this update will include:

- “Stop Aquatic Hitchhikers” educational campaign sign
- Submersed Aquatic Plant (SAV) updates
- Hydrilla status/update
- Emergent shoreline vegetation
- July 14th Springwood Waterway restoration event results
- Recommendations for you and your waterbody

In efforts to reduce transportation of exotics in/out of your lake, SCLMP will be installing an educational campaign sign at the boat ramp off Lake Destiny Trail. These signs are designed to educate boaters on the potential of transporting nuisance species that can be costly to manage. Image of sign is below.

Photo: Image of educational campaign sign provided by SCLMP.
On July 3rd, 2012, Seminole County Lake Management Program (SCLMP) staff Thomas Calhoun, Marie Lackey, and FWC regional biologist C.J. Greene surveyed the aquatic plants of Spring Wood Lake.

Submersed aquatic vegetation (SAV) found during inspection included: exotic hydrilla to a depth of 6 ft (but found sparse and intermixed within native SAV), stonewort to 8 ft, southern naiad to 6 ft, baby’s-tears to 3 ft, and lemon bacopa to 3 ft. Native stonewort was the dominant SAV observed during the inspection and was found topped out along the north shoreline.
Many of the native plants installed from recent restoration events on Spring Wood Lake continue to expand and do well. Torpedo grass and cattails continue to be treated by the MSBU funded herbicide contractor. To allow for further expansion of the planted native vegetation, it is recommended that torpedo grass be removed once it has been treated.

Photo: Example of treated torpedo grass next to pickerelweed.
Photo: Planted site from the March 2012 restoration event.
Secchi disc reading (a measurement for water clarity) was 5.9 ft in a depth of 9.5 ft; a decrease from the last reading of 6.1 ft. No grass carp fish were seen during this inspection.

**Springwood Waterway**

On **July 3rd, 2012**, Seminole County Lake Management Program (SCLMP) staff Thomas Calhoun, Marie Lackey, and FWC regional biologist C.J. Greene surveyed the aquatic plants of **Springwood Waterway**.

The Springwood Waterway Restoration Event was held on Saturday, July 14th. Approximately 80 volunteers turned out to plant 4,000 pickerelweed, 2,000 duck potato, 100 canna lily, 200 fire flag (thalia) as well as soft rush, bur-marigold, iris, and bulrush. A fantastic time was had by all and a hot dog lunch was enjoyed afterwards. To help ensure these plants survive, *please replant* any plants that have “popped up” or uprooted. **KUDOS** to the residents of Spring Lake Hills who participated in making a difference within your watershed! Special thanks go to Sarafaith Peckor and Brian Pelski.

**Photo:** Volunteers planting pickerel weed and enjoying lunch provided by residents of SLH; a community in action!
Native submersed aquatic vegetation (SAV) observed included: lemon bacopa to a depth of 2 ft, road grass to 2 ft, stonewort to 3 ft and purple bladderwort to 3 ft. Stonewort and bladderwort are found in 2 to 3 ft mats along the bottom at the entrance of the waterway. The invasive exotic hydrilla was not observed for the second month in a row. The water elevation is currently too low to bring in the mechanical harvester to remove the SAV at the entrance of the canal.

Photo: Stonewort and bladderwort found at the entrance to the waterway.
**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. Increase educational outreach programs i.e. Shoreline Restoration Workshops (planting days), Florida Yards and Neighborhoods (FYN), Lake Management Video mail-outs, and reduction of pointless personal pollution by using low fertilizer use; phosphorous free 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 waterbody!
Contact Seminole County Lake Management Program (407) 665-2439 for free educational programs available.
Greetings Spring Wood Lake and Springwood Waterway!

Below please find the latest assessment for your waterbody. Our next scheduled assessment will be June 5th, weather permitting. Key highlights of this update will include:

- Hydrilla status- less biomass observed however new location found.
- Monthly herbicide treatment status.
- Springwood Waterway Event: Saturday, July 14th…sign up to be a location!
- Continued encouragement of removing dead torpedo grass along your shoreline.
- Recommendations for you and your waterbody.

**Spring Wood Lake**


Submersed aquatic vegetation (SAV) found during inspection included: hydrilla to a depth of 6 feet, stonewort to 9 feet, southern naiad to 3 feet, baby-tears to 2 feet and lemon bacopa to 5 feet. Hydrilla was found at a greater depth than in previous inspection although still found in less biomass. One new monoculture (single crop) of hydrilla was found on the northeast side of the lake which will be spot treated upon the next scheduled monthly herbicide service date.

Photo: Hydrilla (monoculture) found on the north east corner of the lake.
Many of the native plants from the recent restoration events on Spring Wood Lake continue to expand and do well. To encourage the expansion of the planted native vegetation, it is suggested that torpedo grass be removed from around the new plants where the monthly herbicide treatments may not impact due to affecting the new native plants. Torpedo grass and cattails continue to be treated by the Seminole County herbicide contractor via the MSBU.

Photo: Duck potato and pickerelweed expanding along the shoreline.
Secchi disc reading (a measurement for water clarity) was 6.1 feet in a depth of 9.5 feet; a decrease from the last reading of 6.8 feet. One grass carp fish was observed during this inspection.

**Springwood Waterway**

On **May 3rd, 2012**, Seminole County Lake Management Program (SCLMP) staff Thomas Calhoun, Devin Whitney, and Stan McCreary surveyed the aquatic plants of **Spring Wood Waterway**.

**The Spring Wood Waterway 2012 Restoration Event will be held on Saturday, July 14th.** Please let me or your Liaison, Brian Pelski, know if you would like to be considered a site location to receive free native beneficial aquatic plants. We are hoping for another great community turn-out! These events, coupled with the contracted herbicide treatments, have resulted in torpedo grass no longer being the dominant shoreline plant in many parcels.

**Photo:** Example of excellent shoreline vegetation found within the waterway.
Native submersed aquatic vegetation (SAV) observed included: lemon bacopa to a depth of 2 feet, road grass to 2 feet, stonewort to 3 feet, purple bladderwort to 4 feet, and eelgrass in shallow water. Stonewort and bladderwort are found in 2 foot mats along the bottom at the entrance of the waterway. These plants, coupled with very low water levels, have the entrance to the canal almost impassable. Water elevation will need to return to normal conditions in order for the mechanical harvester to operate in to reduce these plants. We will continue to monitor this segment for mechanical harvesting. The invasive exotic hydrilla was not observed during this inspection.

A treatment took place for the bladderwort on February 15th, 2012, at the mouth extending into the waterway for several hundred yards. At the time of inspection in March, bladderwort was showing signs of impact, however, upon this inspection, it has fully recovered from the series of treatments conducted. This indicates mechanical removal is still the best option for bladderwort control in this area.

**Photo: Stonewort and bladderwort found at the entrance to the waterway.**
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. Increase educational outreach programs i.e. Shoreline Restoration Workshops (planting days), Florida Yards and Neighborhoods (FYN), Lake Management Video mail-outs, and reduction of pointless personal pollution by using low fertilizer use; phosphorous free 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 waterbody! Contact Seminole County Lake Management Program (407) 665-2439 for free educational programs available.
MARCH ASSESSMENTS

Spring Wood Lake

On March 6th, 2012, Seminole County Lake Management Program (SCLMP) staff Gloria Eby, Thomas Calhoun, with student intern Devin Whitney and FWC Regional Biologist CJ Greene, surveyed the aquatic plants of Spring Wood Lake.

SAV found during inspection included: hydrilla to a depth of 7 ft (less depth than previous inspection). Hydrilla was observed with new growth intermixed within other SAV and filamentous algae along the bottom. Overall, hydrilla was found in less biomass along the 5 ft contour around the lake. Hydrilla tubers (potato-like seeds) can remain viable in lake sediments for up to 4 years making monitoring the lake key to managing hydrilla properly.

Native SAV found during inspection included stonewort to 5 ft and southern naiad to 7 ft.

Photo: Hydrilla mixed with southern naiad.
Plants from the 2011 restoration event continue to do well. Signs of winter die-back (brown leaves) are apparent however the plants are anticipated to recover. To encourage the expansion of the planted native vegetation, it is suggested that torpedo grass be removed from around the new plants where the monthly herbicide treatments may not be able to treat the torpedo grass with herbicides due to affecting the new native plants. Torpedo grass and cattails continue to be treated by the Seminole County contractor via the MSBU. The native lily, spatterdock, has been treated in certain areas to open recreational access previously blocked.

Photo: Planted native vegetation duck potato and pickerelweed with winter die-back.
Secchi disc reading (a measurement for water clarity) was 5.9 ft in a depth of 17.2 ft, a decrease from the last reading of 6.5 ft. No grass carp fish were observed during the inspection.

**Springwood Waterway**

On March 6\textsuperscript{th}, 2012, Seminole County Lake Management Program (SCLMP) staff Gloria Eby, Thomas Calhoun, with student intern Devin Whitney and FWC Regional Biologist CJ Greene, surveyed the aquatic plants of **Springwood Waterway**.

Many sites that were planted during the July 9\textsuperscript{th} restoration event are doing great and plants are expanding however some sites have lost plants. Please take extra care when doing lawn maintenance in these areas. If you have a lawn maintenance company, please flag the vegetation or tell your contractor to proceed with caution in these areas.

**Photo:** Duck potato expanding in the waterway.
Native SAV observed included: lemon bacopa to a depth of 2 ft, road grass to 2 ft, stonewort to 5 ft, purple bladderwort to 5 ft, and eelgrass in shallow water. Stonewort and bladderwort were found in 2 to 3 ft mats along the bottom at the entrance of the waterway.

A treatment took place for the bladderwort on February 15\textsuperscript{th}, 2012 at the mouth of the waterway and extended into the waterway for several hundred yards. During our inspection, bladderwort showed minor signs of impact however a greater impact to the lily pads was observed. Full effects and performance of the herbicide used will be determined upon next inspection. This treatment is not funded via the MSBU assessments. The Lake Management Program is testing this product on bladderwort control therefore funding the treatment.

\textbf{Photo: Impacted lily pads in waterway.}
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  Increase educational outreach programs i.e. Shoreline Restoration Workshops (planting days), Florida Yards and Neighborhoods (FYN), Lake Management Video mail-outs, and reduction of pointless personal pollution by using low fertilizer use; phosphorous free 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 waterbody! Contact Seminole County Lake Management Program (407) 665-2439 for free educational programs available.
Greetings Spring Wood Lake and Springwood Waterway!

Below please find the latest assessment for your waterbody. Our next scheduled assessment will be May 3rd, weather permitting. Key highlights of this update will include:

- Hydrilla status- less biomass (plant amount) than previously observed however found in greater water depths
- Monthly herbicide treatment status
- Spring Wood Lake Restoration Event results
- Continued encouragement of removing treated/dead torpedo grass along your shoreline
- Recommendations for you and your lake

**Spring Wood Lake**

On **April 3rd, 2012**, Seminole County Lake Management Program (SCLMP) staff Gloria Eby, Thomas Calhoun, Marianne Pluchino, Devin Whitney and FWC Regional Biologist CJ Greene surveyed the aquatic plants of **Spring Wood Lake**.

Submersed aquatic vegetation (SAV) found during inspection included: hydrilla to a depth of 9 ft (a greater depth than in previous inspection although still found in less biomass), stonewort to 9 ft, and lemon bacopa to 5 ft.

**Photo: Native stonewort found during inspection.**
The 2012 Spring Wood Lake Restoration Event took place on Saturday, March 31st. The event was very successful with a turnout of over 50 volunteers and over 500 native aquatic plants of different varieties being planted. **Kudos to the residents that have participated in making a difference within your lake community…JOB WELL DONE!**

To encourage the expansion of the planted native vegetation, it is suggested that torpedo grass be removed from around any new plants where the monthly herbicide treatments may not spray due to affecting the new native plants. Torpedo grass and minor cattails continues to be treated by the Seminole County contractor via the MSBU assessment.

**Photo: Bulrush planted during the restoration event.**
Photo: Volunteers planting various species.
Secchi disc reading (a measurement for water clarity) was 6.8 ft in a depth of 9.4 ft, an increase from the last reading of 5.9 ft. One grass carp fish was observed during this inspection.

**Springwood Waterway**

On **April 3rd, 2012**, Seminole County Lake Management Program (SCLMP) staff Gloria Eby, Thomas Calhoun, Marianne Pluchino, Devin Whitney and FWC Regional Biologist CJ Greene surveyed the aquatic plants of **Spring Wood Waterway**.

The **Spring Wood Waterway 2012 Restoration Event will be held on Saturday, July 14th**. Please let me or your Liaison, Brian Pelski, know if you would like to be considered a site location to receive free native beneficial aquatic plants. We are hoping for another great community turn-out! These events, coupled with the contracted herbicide treatments, have resulted in torpedo grass no longer being the dominant shoreline plant in many parcels.

**Photo:** Example of excellent shoreline vegetation found within the waterway.
Native SAV observed included: lemon bacopa to a depth of 2 ft, road grass to 2 ft, stonewort to 3 ft, purple bladderwort to 4 ft, and eelgrass in shallow water. Stonewort and bladderwort are found in 2 to 3 ft mats along the bottom at the entrance of the waterway. The invasive exotic hydrilla was not observed during this inspection. In addition, the boat ramp for Lake Destiny at the end of Lake Destiny Trail contains hydrilla that encompasses the entire dock area which will be treated.

A treatment took place for the bladderwort on February 15th, 2012, at the mouth of the waterway and extending into the waterway for several hundred yards. At the time of inspection, bladderwort was showing some signs of impact from this treatment but overall not considered to be an effective control method for this plant. The lilies that were impacted from this treatment are beginning to rebound. An additional treatment is scheduled for end April using a different herbicide to test the effects/performance it may have on bladderwort. This treatment is not funded via the MSBU assessments. The Lake Management Program is testing this product on bladderwort control therefore funding the treatment.

**Photo: Stonewort and bladderwort found at the entrance to the waterway.**
Greetings Spring Wood Lake and Spring Wood Waterway!

Below please find the latest assessment for your lake. Our next scheduled assessment will be March 6\textsuperscript{th}, weather permitting. Key highlights of this update will include:

- Hydrilla status- new growth along the north shore of the lake
- Harvester planned for this spring/summer in canal entry
- Continued encouragement of planting native aquatic plants along your shoreline
- Recommendations for you and your lake
- Spring Wood Lake Restoration Event Saturday, March 31\textsuperscript{st}, 2012

**Spring Wood Lake**

On **February 7\textsuperscript{th}, 2012**, Seminole County Lake Management Program (SCLMP) staff Gloria Eby, Thomas Calhoun, Dean Barber, and FWC Regional Biologist CJ Greene surveyed the aquatic plants of **Spring Wood Lake**.

Submersed aquatic vegetation (SAV) found during inspection included: hydrilla to a depth of 8.5 feet (same depth as previous inspection), stonewort to 6 feet, and roadgrass to 8 feet. Hydrilla was observed with new growth intermixed within other SAV and filamentous algae along the bottom. Additionally, hydrilla has expanded significantly along the 5 foot contour on the north side of the lake. Hydrilla tubers can remain viable in lake sediments for up to 4 years causing such regrowth.

**Photo: Hydrilla found along the north shore of the lake at 8 feet.**

Plants from the April restoration event continue to do well and show signs of expansion. To encourage the expansion of the planted native vegetation, it is suggested that torpedo grass be removed from around the new plants were the monthly herbicide treatments may not impact due
to affecting the new native plants. Torpedo grass and cattails continue to be treated by the Seminole County contractor via the MSBU for aquatic weed control.

**Photo: Native vegetation with treated torpedo grass and cattails intermixed.**

The **Spring Wood Lake 2012 Restoration Event will be held on Saturday, March 31st.** Please let me or your liaison, Larry Hanks, know if you would like to be considered a site location to receive free native beneficial aquatic plants. We are hoping for another great community turn-out! These events, coupled with the contracted herbicide treatments, have resulted in torpedo grass no longer being the dominant shoreline plant in many parcels. The native lily, spatterdock, has been treated in certain areas to open recreational access previously blocked.

Secchi disc reading (a measurement for water clarity) was 6.5 ft in a depth of 9.4 feet an increase from the last reading of 6.2ft. No carp were seen during the inspection.

**Springwood Waterway**

On **February 7th, 2012,** Seminole County Lake Management Program (SCLMP) staff Gloria Eby, Thomas Calhoun, Dean Barber, and FWC Regional Biologist CJ Greene surveyed the aquatic plants of **Springwood Waterway.**

Many sites that were planted during the July 9th restoration event are doing great and plants are expanding. However some sites have lost plants. Please take extra care when doing lawn maintenance in these areas. If you have a lawn maintenance contractor please flag the vegetation or tell your contractor to proceed with caution in these areas.

**The Springwood Waterway 2012 Restoration Event will be held on Saturday, July 14th.** Please let me or your liaison, Brian Pelski, know if you would like to be considered a site
location to receive free native beneficial aquatic plants. We are hoping for another great community turn-out! These events, coupled with the contracted herbicide treatments, have resulted in torpedo grass no longer being the dominant shoreline plant in many parcels.

**Photo: Duck potato expanding in the waterway.**

Native submersed aquatic vegetation (SAV) observed included: lemon bacopa to a depth of 2 feet, road grass to 2 feet, stonewort to 5 feet, purple bladderwort to 5 feet, and eelgrass in shallow water. Stonewort and bladderwort are found in 2 to 3 foot mats along the bottom at the entrance of the waterway. The invasive exotic hydrilla that was observed during prior inspections (occupying 40% coverage) was successfully treated on December 8, 2011. New hydrilla was observed during this inspection at the entrance to the waterway and at the boat ramp for Lake Destiny at the end of Lake Destiny Trail that encompasses the entire dock area. These areas are scheduled to be spot treated next service date.

Mechanical harvesting for the stonewort and bladderwort is scheduled for this fiscal year and includes the entrance of the waterway to the first bend (approximately 800 ft). As in prior updates, *those that have an irrigation pipe/intake are advised to create a detachable pipe so that when the harvester is in the area, more of the biomass will be harvested.* As is, due to the confined space and potential damage it may cause, the intakes are avoided leaving plant material behind. Additionally, on February 8th, we looked into a new herbicide for control of bladderwort (only) and we have determined test plots for treatment and will observe performance of the product on bladderwort within these test plots for future consideration.

**Photo: Nitella found in waterway.**
Recommendations for waterbodies:

1 **Participate in the upcoming Restoration Events:**
   Spring Wood Lake on Saturday, March 31st from 9am-12 pm. Contact Larry Hanks at lhanksjr@gmail.com or Gloria Eby at geby@seminolecountyfl.gov.
   Springwood Waterway on Saturday, July 14th from 9am-12 pm. Contact Brian Pelski at bpelski89@gmail.com or Gloria Eby at geby@seminolecountyfl.gov.

2 **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).

3 **Spring Wood Lake and Lake Destiny are in need of LAKEWATCH volunteers.** This free program provides vital monthly data on nutrient levels for your lake which currently is not being collected. Volunteers would need to collect monthly water samples and submit to a local drop-off location in Altamonte Springs. Contact Seminole County Lake Management Program at (407) 665-2439 for more information.
4 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 nutrients that can impact your lakes.

5 Increase educational outreach programs i.e. Shoreline Restoration Workshops (planting days), Florida Yards and Neighborhoods (FYN), Lake Management Video mail-outs, and reduction of pointless personal pollution by using low fertilizer use; phosphorous free 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 waterbody! Contact Seminole County Lake Management Program (407) 665-2439 for free educational programs available.
Greetings Spring Wood Lake and Springwood Waterway!

Below please find the latest assessments for your waterways. Our next scheduled monthly inspection will be February 7th (weather permitting). Key highlights of this update will include:

- Hydrilla status- growth in Spring Wood Lake and Spring Wood Waterway
- Watershed stewardship for management of hydriilla
- Grass carp stocking status
- Monthly herbicide treatment status
- Spring Wood Lake Restoration Event: **Saturday, March 3, 2012**
- Continued encouragement of planting native aquatic plants along your shoreline
- Recommendations for you and your lake

**Spring Wood Lake**

**On December 8th, 2011,** Gloria Eby (Seminole County Lake Management Program), CJ Greene (Florida Fish and Wildlife Conservation Commission [FWC]), and Keith Mangus (Applied Aquatic Management) surveyed the aquatic plants in **Spring Wood Lake**.

Submersed aquatic vegetation (SAV) found during inspection included: stonewort (Nitella) in depth of 4 to 9 feet, road grass to 8 feet, and lemon bacopa to 3 feet. Hydrilla was sampled to a depth of 14 feet, with increasing biomass observed from previous inspection clockwise along the northwest shoreline to the north shoreline, and was observed with new growth intermixed within other SAV and filamentous algae along the bottom. Additionally observed in abundance was the potato-like tubers generating new hydrilla plant (see photo). Hydrilla tubers can remain viable in lake sediment for up to 4 years.

**Photos:** Hydrilla biomass collected in Spring Wood Lake. Greater biomass present than in previous inspections.
Photo: Hydrilla’s potato-like tuber generating new plant.

MSBU has executed the stocking of the 88 fish recommended (an additional 2 fish per acre) that have been stocked into the end of the canal and in Spring Wood Lake on December 16, 2011. In addition, spot treatments were conducted on December 21, 2011 in Spring Wood Lake as continued efforts for an integrated management plan (use of biological, chemical, and mechanical means) for the waterways.

Photos: Grass carp fish stocking into the waterways on December 16, 2011.
Seminole County Lake Management/MSBU Programs continue to encourage collective participation with the various agency stakeholders (Cities of Maitland and Altamonte Springs and FWC) and the community liaisons representing the Springwood Lake and Springwood Waterway lakefront property owners. Establishing routine interaction and discussions on tri-waterbody (Lake Destiny, Springwood Lake and Springwood Waterway) topics such as hydrilla management updates, fish stockings, inspections, and upcoming restorations is a long-term goal supported by the County, FWC, and the community liaisons.

The Spring Wood Lake 2012 Restoration Event will be held on Saturday, March 31st. Please let me or your Liaison, Larry Hanks, know if you would like to be considered a site location to receive free native beneficial aquatic plants. We are hoping for another great community turn-out! These events, coupled with the contracted herbicide treatments, have resulted in torpedo grass no longer being the dominant shoreline plant in many parcels. The native lily, spatterdock, has been treated in certain areas to open recreational access previously blocked.

Photo: Treated torpedo grass and cattails with minimal impact to natives.

Secchi disc reading (a measurement for water clarity) was 6.9 feet in a depth of 17 feet; and increase of 1 foot from prior survey. No grass carp fish were observed.

Springwood Waterway

On December 8th, 2011, Gloria Eby (Seminole County Lake Management Program), CJ Greene (FWC), and Keith Mangus (Applied Aquatic Management) surveyed the aquatic plants in Spring Wood Lake.

Native plants from past restoration events are expanding throughout the waterway in some areas. In other areas, the plants are completely gone and appear to have been mowed (see photo below).

Photo: Duck potato expanding in the waterway (left) and example of mowed aquatic plants (right).
Native submersed aquatic vegetation (SAV) observed included: lemon bacopa to a depth of 2 feet, stonewort (Nitella) to 4 feet, purple bladderwort to 5 feet, and eelgrass in shallow water. Stonewort and bladderwort are found in 2 to 3 feet mats along the bottom at the entrance of the waterway. We anticipate the harvester will be utilized to reduce this biomass this year. As in prior update, those that have an irrigation pipe/intake are advised to create a detachable pipe so that when the harvester is in the area, more of the biomass will be harvested. As is due to the confined space and potential damage it may cause, the intakes are avoided leaving plant material behind. On February 8th, we plan to look into a new herbicide for control of bladderwort (only). We will be determining test plots and will observe performance of the product on bladderwort.

The invasive exotic hydrilla that was observed during the last inspection has expanded into a single biomass occupying 40% of the canal despite several large spot-treatment conducted. With this great expansion in hydrilla, treatment within the canal was conducted December 8, 2011.

Photo: Hydrilla as a monoculture (single crop) in waterway present in 40% of the canal.

Photo: Carp carcus found in canal; indication of predation.
Recommendations for waterbodies:

1. Participate in the upcoming Spring Wood Lake Restoration Event on Saturday, March 31st from 9am-12 pm. Contact Larry Hanks at lhanksjr@gmail.com or Gloria Eby at geby@seminolecountyfl.gov.

2. 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).

3. Spring Wood Lake and Lake Destiny are in need of LAKEWATCH volunteers. This free program provides vital monthly data on nutrient levels for your lake which currently is not being collected. Volunteers would need to collect monthly water samples and submit to a local drop-off location in Altamonte Springs. Contact Seminole County Lake Management Program at (407) 665-2439 for more information.

4. 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 nutrients that can impact your lakes.

5. Increase educational outreach programs i.e. Shoreline Restoration Workshops (planting days), Florida Yards and Neighborhoods (FYN), Lake Management Video mail-outs, and reduction of pointless personal pollution by using low fertilizer use; phosphorous free 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 waterbody! Contact Seminole County Lake Management Program (407) 665-2439 for free educational programs available.

Have a great week!
Greetings Spring Wood Lake and Springwood Waterway!

Below please find the latest assessments for your waterways. Our next scheduled monthly inspection will be December 7th (weather permitting). Key highlights of this update will include:

- Hydrilla status- growth in Spring Wood Lake and Spring Wood Waterway
- Cities participation level on watershed management of hydrilla
- Grass carp stocking status
- Monthly herbicide treatment status
- Results from this year’s restoration events
- Continued encouragement of planting native aquatic plants along your shoreline
- Recommendations for you and your lake

**Spring Wood Lake**

On **November 8th, 2011**, Thomas Calhoun (Seminole County Contracted Scientist) and Gloria Eby (Lake Management Program) surveyed the aquatic plants in **Spring Wood Lake**.

Submersed aquatic vegetation (SAV) found during inspection included: stonewort (Nitella) to 8 feet, road grass to 8 feet, and lemon bacopa to 3 feet. Hydrilla was sampled to a depth of 15 feet (greater than in the previous inspection of 12.5 feet) and was observed with new growth intermixed within other SAV and filamentous algae along the bottom. Additionally observed in abundance was the potato-like tubers generating new hydrilla plant (see photo). Hydrilla tubers can remain viable in lake sediment for up to 4 years.

**Photos: Hydrilla biomass collected in Spring Wood Lake. Greater biomass present than in previous inspection.**

![Photo: Hydrilla potato-like tuber generating new plant.](image)
A request for cost share with current MSBUs and the cities (Maitland and Altamonte Springs) has been submitted in efforts to stock a total of 88 triploid (sterile) grass carp fish for hydrilla management in the chain of lakes. The cities reviewed this request and have denied cost-share participation. City of Maitland’s response for declining 58 fish was that “the native submerged and emergent plant community is diverse and well-established. Therefore, we cannot justify expending City funds to unnecessarily increase the grass carp stocking rate to 5 fish per surface acre within the waterbody”.

Whereas the City of Altamonte Springs has declined contribution of 4 grass carp fish “since there are MSBU’s in place”.

A follow-up response to the cities was provided emphasizing that the additional fish are deemed necessary to control the great tuber-generated re-growth occurring in Springwood Lake and canal. Springwood Lake has had years of un-manage hydrilla growth and these tubers, deposited over time and viable for up to 4 years in the lake sediments, will play a vital role in management strategies. In order to effectively target hydrilla in this watershed and depth (which includes non-MSBU areas within city jurisdiction), it becomes necessary to introduce fish on a watershed level, not in an isolated area, since the fish migrate. The total fish per acre rate calculated by City of Maitland would be accurate if no predation or mortality has occurred. Given that the watershed contains a healthy otter population and the significant hydrilla re-growth observed, it is within justifiable reason to request for cost-share to add a conservative 2 fish per acre rate.

Plants from the April Restoration Event continue to do well and show signs of expansion. To encourage the expansion of the planted native vegetation, it is suggested that torpedo grass be removed from around the new plants where the monthly herbicide treatments may not impact due to affecting the new native plants. Torpedo grass and cattails continue to be treated by the Seminole County contractor via the MSBU. This, coupled with the shoreline restoration events, has resulted in torpedo grass no longer being the dominant shoreline plant in many parcels. The native lily, spatterdock, has been treated in certain areas to open recreational access previously blocked.

Photo: Treated torpedo grass and cattails with minimal impact to natives.
Secchi disc reading (a measurement for water clarity) was 5.9 feet in a depth of 12.5 feet. No grass carp fish were observed.

**Springwood Waterway**

On **November 8th, 2011**, Thomas Calhoun (Seminole County Contracted Scientist) and Gloria Eby (Seminole County Lake Management Program) surveyed the aquatic plants in **Springwood Waterway**.

Native plants from the past restoration events are expanding throughout the waterway in some areas. In other areas, the plants are completely gone and appear to have been mowed (see photo below).

**Photo: Duck potato expanding in the waterway (left) and example of mowed aquatic plants (right).**

Native submersed aquatic vegetation (SAV) observed included: lemon bacopa to a depth of 2 feet, stonewort (Nitella) to 4 feet, purple bladderwort to 5 feet, and eelgrass in shallow water. Stonewort and bladderwort are found in 2 to 3 feet mats along the bottom at the entrance of the waterway. Currently there is not enough plant material to warrant removing via mechanical harvester although a budgeted item for this fiscal year.

The invasive exotic hydrilla that was observed during the last inspection has expanded along the shore in larger areas of the canal. Several areas have been spot-treated with Aquathol however there are new larger areas of hydrilla that was not present during last month’s inspection. With this great expansion in hydrilla, treatment within the canal is under evaluation for larger herbicide block treatments.

Mid-canal and at end-canal, carp barriers were inspected and found to contain leaf debris impeding flow. It is recommended to clear barriers from such debris on a frequent basis especially after large rain events.
Photo: Hydrilla found in waterway with tubers present.

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. Spring Wood Lake and Lake Destiny are in need of LAKEWATCH volunteers. This free program provides vital monthly data on nutrient levels for your lake which currently is not being collected. Volunteers would need to collect monthly water samples and submit to a local drop-off location in Altamonte Springs. Contact the Seminole County Lake Management Program at (407) 665-2439 for more information.

3. 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.

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 pointless personal pollution by using low fertilizer use; phosphorous free 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 waterbody! Contact Seminole County Lake Management Program (407) 665-2439 for free educational programs available.
Greetings Spring Wood Lake and Springwood Waterway!

Below please find the latest assessments for your waterways. Key highlights of this update will include:

- Hydrilla status- growth in Spring Wood Lake and Spring Wood Waterway
- Grass carp stocking
- Monthly herbicide treatment status
- Results from this year’s restoration events
- Continued encouragement of planting native aquatic plants along your shoreline
- Recommendations for you and your lake

**Spring Wood Lake**

On **October 4th, 2011**, Thomas Calhoun (Seminole County Contracted Scientist) and Gloria Eby (Lake Management Program) surveyed the aquatic plants in **Spring Wood Lake**.

Submersed aquatic vegetation (SAV) found during inspection included: stonewort (Nitella) to 10 feet, road grass to 8 feet, and lemon bacopa to 3 feet. Hydrilla was sampled to a depth of 12.5 feet (same as in the previous inspection) and was observed with new growth intermixed within other SAV and filamentous algae along the bottom. Additionally observed in abundance was the potato-like tubers generating new hydrilla plant (see photo). Hydrilla tubers can remain viable in lake sediment for up to 4 years. A request for cost share with the city of Maitland and the city of Altamonte Springs has been submitted in efforts to stock a total of 88 triploid (sterile) grass carp fish for hydrilla management in the chain of lakes. The cities are currently reviewing request.

**Photo: Hydrilla intermixed with filamentous algae on left and hydrilla tuber on right.**

Plants from the April Restoration Event continue to do well and show signs of expansion. To encourage the expansion of the planted native vegetation, it is suggested that torpedo grass be removed from around the new plants where the monthly herbicide treatments may not impact due to affecting the new native plants. Torpedo grass and cattails continue to be treated by the Seminole County contractor via the MSBU. This, coupled with the shoreline restoration events, has resulted in torpedo grass no longer being the dominant shoreline plant in many parcels. The native lily, spatterdock, is scheduled to be treated in certain areas to open recreational access currently blocked. This treatment is anticipated to be next week weather permitting.
Secchi disc reading (a measurement for water clarity) was 6.7 feet in a depth of 12.4 feet.

**Springwood Waterway**

On **October 4th, 2011**, Thomas Calhoun (Seminole County Contracted Scientist) and Gloria Eby (Seminole County Lake Management Program) surveyed the aquatic plants in **Spring Wood Waterway**.

Native plants from the past restoration events are expanding throughout the waterway in some areas. In other areas the plants are completely gone and appear to have been mowed. These plants included: duck potato, pickerelweed, canna, and fire flag.

**Photo: Duck potato expanding in the waterway.**
Native submersed aquatic vegetation (SAV) observed included: lemon bacopa to a depth of 2 feet, stonewort (Nitella) to 4 feet, purple bladderwort to 5 feet, and eelgrass in shallow water. Stonewort and bladderwort are found in 2 to 3 feet mats along the bottom at the entrance of the waterway. Currently there is not enough plant material to warrant removing via mechanical harvester.

The invasive exotic hydrilla that was observed during the last inspection has expanded along the shore in larger areas of the canal. Several areas will be spot-treated with Aquathol upon next service date.

Photo: Hydrilla found in waterway.
Photo: Stonewort mat found at the entrance of the waterway.
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 phosphorus that can impact your lakes.

3 Increase educational outreach programs i.e. Shoreline Restoration Workshops (planting days), Florida Yards and Neighborhoods (FYN), Lake Management Video mail-outs, and reduction of pointless personal pollution by using low fertilizer use; phosphorous free 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 waterbody! Contact Seminole County Lake Management Program (407) 665-2439 for free educational programs available.