Greetings Howell Creek Residents!

Please find the latest bioassessment report for your creek below. Our next inspection date will be October 20th; weather permitting. Some of the key highlights from this report will include:

- Submersed aquatic vegetation (SAV) update
- Emergent vegetation presence
- Erosion issues and recommendations
- Lake Waumpi vegetation status/update

On **August 20th, 2014**, Thomas Calhoun (Seminole County Lake Management Program) and Joey Cordell (Seminole County Watershed Management Intern) surveyed the aquatic plants in **Howell Creek and Lake Waumpi**.

Six species of submersed aquatic vegetation (SAV) were found during the inspection; five natives and 1 exotic. These SAV species included road grass, bladderwort, eelgrass, coontail, southern naiad, and hydrilla (exotic). All of the SAV species are expanding, except for hydrilla; only one sprig of hydrilla was observed. We will continue to monitor the creek for hydrilla. Eelgrass (a beneficial native) was topping out and causing a blockage near the west end of the creek.

**Photo: Native eelgrass topping out.**
Invasive emergent vegetation observed during the inspection included: alligatorweed, wild taro, salvinia, and water hyacinth. The water hyacinth and salvinia were abundant, but showed signs of recent treatment by the MSBU funded herbicide contractor. The alligatorweed had also been treated. Torpedo grass was not present in the creek at time of inspection.

**Photo: Treated water hyacinth and salvinia.**

Native vegetation found during the inspection included yellow cow lily and duckweed. Some shorelines along the north bank of the creek had visible erosion issues. It is recommended that native shoreline vegetation be planted to help reduce erosion and stabilize this shoreline. Recommended native species include, but are not limited to: pickerelweed (scientific name: *Pontederia cordata*), duck potato (*Sagittaria lancifolia*), golden canna (*Canna flacida*), fire flag (*Thalia geniculata*), and cord grass (*Spartina bakeri*).

Lake Waumpi was also surveyed during this inspection. The lake was recently treated by the City of Winter Park. The treatment resulted in a reduction of yellow cow lily, water hyacinth, alligatorweed, torpedo grass, salvinia, cattails, primrose willow, and burhead sedge. SAV species found in the lake included native coontail, southern naiad, and bladderwort. In areas on the west side of the lake, both southern naiad and coontail are topping out and hindering navigation.
The secchi reading (water clarity) in Lake Waumpi was visible on bottom in a depth of 4 feet. One triploid (sterile) grass carp fish were observed. LakeWatch water quality data for Lake Waumpi can be found on the Seminole County Watershed Atlas at: http://www.seminole.wateratlas.usf.edu/lake/default.asp?wboid=151861&wboidatlas=lake.

Recommendations:

1  Work together with other lakefront owners. Have at least one annual waterbody association meeting, invite guest speakers (such as county or state biologists) and discuss lake specific issues, especially nutrients/lake management recommendations. Seminole County Lake Management Program 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  Utilize the valuable educational outreach programs that are available, i.e. Shoreline Restoration Workshops, Florida Yards and Neighborhoods (FYN) interactive presentations, and Lake Management Video mail-outs. Implement a media campaign within the community to
reduce personal pollution by: decreasing overall fertilizer usage, using only phosphorous free and slow-release nitrogen fertilizers, keeping a functional shoreline with beneficial native aquatic plants, and keeping grass clippings out of your lake and the storm drains that lead to the lakes. All of these activities aid in protecting your lake! Contact Seminole County Lake Management Program (407) 665-2439 for more information regarding the free educational programs available.

3 Help spread the word! Obtain email addresses from neighbors not currently on the distribution list in order to share this information with others. Valuable information is contained within these reports.
Greetings Howell Creek Residents!

Please find the latest bioassessment report for your creek below. Our next creek inspection is scheduled for **August 18th**, weather permitting. Some of the key highlights from this report will include:

- Submersed aquatic vegetation (SAV) update
- Emergent vegetation presence
- Erosion issues and recommendations
- Lake Waumpi vegetation status/update
- Recommendations for you and your waterbody

On **July 24th, 2014**, Thomas Calhoun (Seminole County Lake Management Program) and Joey Cordell (Seminole County Watershed Management Intern) surveyed the aquatic plants in **Howell Creek** and **Lake Waumpi**.

Four species of submersed aquatic vegetation (SAV) were found during the inspection. These SAV species included road grass, bladderwort, eelgrass, and hydilla. Only one sprig of hydilla was found. We will continue to monitor the growth of hydilla.

**Photo: Bladderwort.**
Invasive emergent vegetation found during the inspection included: alligatorweed, wild taro, salvinia, and water hyacinth. Recent heavy rains have increased the water level and flow of Howell Creek. The faster flowing water carried water hyacinth and salvina from upstream and deposited them as clusters in the creek. Torpedo grass was not present in the creek at time of inspection.

**Photo: Water hyacinth and Salvinia.**

Native vegetation found during the inspection included yellow cow lily and pickerelweed. Some shorelines along the north bank of the creek had visible erosion issues. It is recommended that native shoreline vegetation be planted to help reduce erosion and stabilize this shoreline. Recommended native species include, but are not limited to: pickerelweed (scientific name: *Pontederia cordata*), duck potato (*Sagittaria lancifolia*), golden canna (*Canna flacida*), fire flag (*Thalia geniculata*), and cord grass (*Spartina bakeri*).

Lake Waumpi was also surveyed during this inspection. Since the last inspection there has been an expansion of yellow cow lilies. SAVs found in the lake included coontail and bladderwort. Most of Lake Waumpi’s shoreline was dominated by invasive species including: burhead sedge, primrose willow, Carolina willow, cattails, alligatorweed, salvinia, and water hyacinth. Many of
these invasives were beginning to form large floating mats. Without management, these mats will eventually sprawl into the open waters of the lake.

The secchi reading (water clarity) in Lake Waumpi was visible on bottom in a depth of 4.2 feet. No triploid (sterile) grass carp fish were observed. LakeWatch water quality data for Lake Waumpi can be found on the Seminole County Watershed Atlas at: http://www.seminole.wateratlas.usf.edu/lake/default.asp?wboid=151861&wbbodyatlas=lake.

**Lake Recommendations:**

1- Work together or establish a lake association 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 lake management recommendations. Seminole County Lake Management staff would be glad to present our findings from this and other surveys to the community. Contact Seminole County Lake Management Program at (407) 665-2439 with questions or to schedule a meeting.

2- Increase native aquatic plantings along shoreline (such as pickerelweed, duck potato, and canna). Native shoreline plants help absorb nutrients from rainfall/run-off, thereby improving habitat and water quality, and reducing shoreline erosion of sediments/organic matter into the lake. Over time, this process will fill the lake, creating a wetland-type of environment. Planting native species now can assist in slowing this process (formally known as eutrophication). In addition, native plantings can reduce your herbicide costs/needs, thereby providing a savings to you!

3- Utilize the valuable educational outreach programs that are available, i.e. Shoreline Restoration Workshops, Florida Yards and Neighborhoods (FYN) interactive presentations, and Lake Management Video mail-outs. Implement a media campaign within the community to reduce personal pollution by: decreasing overall fertilizer usage, using only phosphorous-free and slow-release nitrogen fertilizers, keeping a functional shoreline with beneficial native aquatic plants, and keeping grass clippings out of your lake and the storm drains that lead to the lakes. All of these activities aid in protecting your lake! Contact Seminole County Lake Management Program (407) 665-2439 for more information regarding the free educational programs available.

4- Help spread the word! Obtain email addresses from neighbors not currently on the distribution list in order to share this information with others. Valuable information is contained within these reports.
Greetings Howell Creek Residents!

Please find the latest bioassessment report for your creek below. Some of the key highlights from this report will include:

- Submersed aquatic vegetation (SAV) update
- Emergent vegetation presence
- Lake Waumpi lily pad treatment
- Recommendations for you and your waterbody

On **March 20th, 2014**, Thomas Calhoun (Seminole County Lake Management Program) and Joey Cordell (Seminole County Watershed Management Intern) surveyed the aquatic plants in **Howell Creek and Lake Waumpi**.

Five species of submersed aquatic vegetation (SAV) were found during the inspection. These SAV species (all beneficial natives) included road grass, bladderwort, eelgrass, southern naiad, and coontail. The invasive species hydrilla was not observed during this inspection.

**Photo: Road grass.**

Invasive emergent vegetation observed during the inspection included: alligator weed, elephant ear, and cattail. Water hyacinth was found throughout the creek but was impacted due to the herbicide treatment conducted the week prior.
Lake Waumpi was also surveyed during this inspection. There were significantly fewer lily pads on the lake than in the previous inspection due to a recent herbicide treatment conducted by City of Winter Park/Maitland. The rhizomes (root system) of these dying lily pads are now washing downstream and accumulating in various locations in the creek.
Most of Lake Waumpi’s shoreline was dominated by invasive species including: burhead sedge, primrose willow, Carolina willow, cattails, alligator weed, and salvinia. Some of the floating mats that were extending from the shoreline showed signs of herbicide treatment.

The secchi reading (water clarity) in Lake Waumpi was VOB (visible on bottom) in a depth of 2.5 feet. One triploid (sterile) grass carp fish was observed in Lake Waumpi. LAKEWATCH water quality data for Lake Waumpi can be found on the Seminole County Watershed Atlas at: [http://www.seminole.wateratlas.usf.edu/lake/default.asp?wboid=151861&wbodiatlas=lake](http://www.seminole.wateratlas.usf.edu/lake/default.asp?wboid=151861&wbodiatlas=lake).
On April 23rd, 2014, Thomas Calhoun (Seminole County Lake Management Program) and Joey Cordell (Seminole County Watershed Management Intern) surveyed the aquatic plants in Howell Creek and Lake Waumpi.

Four species of SAV were found during the inspection; one was exotic. These SAV species included road grass, bladderwort, eelgrass, and exotic hydrilla. Only two small sprigs of hydrilla were collected in sample.

Photo: Bladderwort.

Invasive emergent vegetation observed during the inspection included: alligator weed, elephant ear, cattail, torpedo grass, and water hyacinth. Water hyacinth was in large quantity. Increased flow from recent rains has carried the water hyacinth from upstream of Lake Waumpi into the creek. Some floating lily rhizomes were still present from the previous upstream herbicide treatment.
Lake Waumpi was also surveyed during this inspection. The center of the lake had only a few lilies. Most of Lake Waumpi’s shoreline was dominated by invasive species including: burhead sedge, primrose willow, Carolina willow, cattails, alligator weed, and salvinia. Two submersed aquatic vegetation species were found in Waumpi: coontail and bladderwort.
The secchi reading (water clarity) in Lake Waumpi was VOB (visible on bottom) in a depth of 2.5 feet. One triploid (sterile) grass carp fish was observed in Lake Waumpi. LAKEWATCH water quality data for Lake Waumpi can be found on the Seminole County Watershed Atlas at: [http://www.seminole.wateratlas.usf.edu/lake/default.asp?wbodyid=151861&wbodyatlas=lake](http://www.seminole.wateratlas.usf.edu/lake/default.asp?wbodyid=151861&wbodyatlas=lake).

On **May 19th, 2014**, Thomas Calhoun (Seminole County Lake Management Program) and Joey Cordell (Seminole County Watershed Management Intern) surveyed the aquatic plants in Howell Creek and Lake Waumpi.

Four species of beneficial native SAV were found during the inspection. These SAV species included road grass, bladderwort, eelgrass, and southern naiad. Road grass, bladderwort and eelgrass have all expanded throughout the creek with bladderwort topping out (reaching the surface) in some areas. Some substrate algae was present during the inspection. The invasive species hydrilla was not observed during this inspection.

**Photo: Bladderwort topping out.**

Water hyacinth has been reduced throughout the creek but was still present in small patches. Torpedo grass and alligatorweed also were found reduced. Torpedo grass has been reduced to the point that it is no longer the dominant shoreline species. Many shorelines are bare or have terrestrial grass to the waters edge. It is
recommended that native emergent species (such as duck potato, pickerelweed, or soft rush) is planted along the shoreline. Native emergent vegetation along the shoreline can help reduce erosion and help buffer nutrients from yard runoff.

**Photo: Typical shoreline along Howell Creek.**

Lake Waumpi was also surveyed during this inspection. Lily pads are beginning to return to the lake. The rhizomes (root system) of the dead lily pads are still present in the creek. Most of Lake Waumpi’s shoreline was dominated by invasive species including: burhead sedge, primrose willow, Carolina willow, cattails, alligator weed, and salvinia.

**Photo: Bur-head sedge at the entrance to Lake Waumpi.**
The secchi reading (water clarity) in Lake Waumpi was VOB (visible on bottom) in a depth of 4 feet. No triploid (sterile) grass carp fish was observed in Lake Waumpi. LAKEWATCH water quality data for Lake Waumpi can be found on the Seminole County Watershed Atlas at: http://www.seminole.wateratlas.usf.edu/lake/default.asp?wbodyid=151861&wbbodyatlas=lake.

Recommendations:

1. Work together with other lakefront owners. Have at least one annual waterbody association meeting, invite guest speakers (such as county or state biologists) and discuss lake specific issues, especially nutrients/lake management recommendations. Seminole County Lake Management Program 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. Utilize the valuable educational outreach programs that are available, i.e. Shoreline Restoration Workshops, Florida Yards and Neighborhoods (FYN) interactive presentations, and Lake Management Video mail-outs. Implement a media campaign within the community to reduce personal pollution by: decreasing overall fertilizer usage, using only phosphorous free and slow-release nitrogen fertilizers, keeping a functional shoreline with beneficial native aquatic plants, and keeping grass clippings out of your lake and the storm drains that lead to the lakes. All of these activities aid in protecting your lake! Contact Seminole County Lake Management Program (407) 665-2439 for more information regarding the free educational programs available.

3. Help spread the word! Obtain email addresses from neighbors not currently on the distribution list in order to share this information with others. Valuable information is contained within these reports.
Greetings Howell Creek Residents!

Please find the latest bioassessment report for your creek below. Some of the key highlights from this report will include:

- Submersed aquatic vegetation (SAV) update
- Emergent vegetation presence
- Erosion issues and recommendations
- Lake Waumpi vegetation status/update
- Recommendations for you and your waterbody

On **December 18**th, 2013, Thomas Calhoun (Seminole County Lake Management Program) and Joey Cordell (Seminole County Watershed Management Intern) surveyed the aquatic plants in **Howell Creek and Lake Waumpi**.

Five species of submersed aquatic vegetation (SAV) were found during the inspection. These SAV species included road grass, southern naiad, bladderwort, eelgrass, and hydrilla. The invasive species hydrilla was found in small springs only in a few regions of the creek. No treatment for hydrilla is needed at this time.

**Photo: Bladderwort.**
Invasive emergent vegetation found during the inspection included: alligator weed, elephant ear, and cattail. Water hyacinth, a floating invasive aquatic plant, has spread throughout the creek since the last inspection. There were several large mats of water hyacinth in the upstream portion of the creek and a few isolated water hyacinths downstream. Another floating invasive aquatic plant, salvinia, was seen in large quantities but has been impacted by the MSBU funded herbicide contractor.

**Photo: Salvinia.**

Now that the torpedo grass has been reduced, some of the shorelines along the north bank of the creek are bare and showing signs of erosion. It is recommended that native shoreline vegetation be planted to help reduce erosion, stabilize the shoreline, and prevent the return of torpedo grass. Recommended native species include, but are not limited to: pickerelweed (scientific name: *Pontederia cordata*), duck potato (*Sagittaria lancifolia*), golden canna (*Canna flacida*), fire flag (*Thalia geniculata*), and cord grass (*Spartina bakeri*). Native vegetation found during the inspection included yellow cow lily, pickerelweed, soft rush, and pennywort.

**Photo: Bare shoreline is susceptible to erosion.**
Lake Waumpi was also surveyed during this inspection. There were significantly less lily pads on Waumpi than in the previous inspection. Coontail was the only SAV found in the lake. Most of Lake Waumpi’s shoreline was dominated by invasive species including: burhead sedge, primrose willow, Carolina willow, cattails, alligator weed, and salvinia. Some floating mats extending from the shoreline show signs of herbicide treatment.

The secchi reading (water clarity) in Lake Waumpi was VOB (visible on bottom) in a depth of 4 feet. One triploid (sterile) grass carp fish was observed. LakeWatch water quality data for Lake Waumpi can be found on the Seminole County Watershed Atlas at: http://www.seminole.wateratlas.usf.edu/lake/default.asp?wboid=151861&wbbodyatlas=lake.

2/10/2014

On **February 10th, 2014**, Thomas Calhoun (Seminole County Lake Management Program) and Joey Cordell (Seminole County Watershed Management Intern) surveyed the aquatic plants in Howell Creek and Lake Waumpi.

Five species of submersed aquatic vegetation (SAV) were found during the inspection. These SAV species included road grass, bladderwort, eelgrass, southern naiad and coontail. The invasive species hydrilla was not found during this inspection.
Invasive emergent vegetation found during the inspection included: alligator weed, elephant ear, and cattail. Water hyacinth was found throughout the creek. Salvinia is washing in from Lake Waumpi due to the recent rainfall. This is causing large pockets of salvinia to occur especially around the weir.

Photo: Water hyacinth.
Lake Waumpi was also surveyed during this inspection. There were significantly less lily pads on Waumpi than in the previous inspection. Coontail and hydrilla were the only SAV found in the lake. Most of Lake Waumpi’s shoreline was dominated by invasive species including: burhead sedge, primrose willow, Carolina willow, cattails, alligator weed, and salvinia. Some floating mats extending from the shoreline show signs of herbicide treatment. Salvinia was found in large quantities around Lake Waumpi’s shoreline.

Photo: Burhead sedge and cattails on Lake Waumpi’s shoreline.
The secchi reading (water clarity) in Lake Waumpi was VOB (visible on bottom) in a depth of 3 feet. One triploid (sterile) grass carp fish was observed. LakeWatch water quality data for Lake Waumpi can be found on the Seminole County Watershed Atlas at: http://www.seminole.wateratlas.usf.edu/lake/default.asp?wboid=151861&wbodyatlases=lake.

**Recommendations:**

1. Work together with other lakefront owners. Have *at least* one annual waterbody association meeting, invite guest speakers (such as county or state biologists) and discuss lake specific issues, especially nutrients/lake management recommendations. Seminole County Lake Management Program 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. 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 using low fertilizer use; phosphorus 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 Howell Creek Residents!

Please find the latest bioassessment for your creek below. Some of the key highlights from this report will include:

- Submersed aquatic vegetation (SAV) update
- Emergent vegetation presence
- Erosion issues and recommendations
- Lake Waumpi vegetation status/update
- Recommendations for you and your waterbody

On **October 9th, 2013**, Thomas Calhoun (Seminole County Lake Management Program) and Joey Cordell (Seminole County Watershed Management Intern) surveyed the aquatic plants in **Howell Creek and Lake Waumpi**.

Four species of submersed aquatic vegetation (SAV) were observed during the inspection. These SAV species included road grass, southern naiad, coontail, and eelgrass. Hydrilla was not observed during this inspection. This was a reduction in hydrilla from the previous inspection in which only a few sprigs were found.

**Photo: Southern naiad found in creek.**
Invasive emergent vegetation found during the inspection included: alligator weed, elephant ear, torpedo grass, and cattail. Torpedo grass was found in a very small amount. The MSBU-funded herbicide contractor continues to do a good job eradicating torpedo grass within the MSBU boundary of Howell Creek. Water hyacinth, a floating invasive aquatic plant, was observed slightly more often than in the previous inspection.

Native vegetation found during the inspection included: yellow cow lily, pennywort, and water paspalum. Some shorelines along the north bank of the creek had visible erosion issues. It is recommended that native shoreline vegetation be planted to help reduce erosion and stabilize this shoreline. Recommended native species include, but are not limited to: pickerelweed (scientific name: *Pontederia cordata*), duck potato (*Sagittaria lancifolia*), golden canna (*Canna flacida*), fire flag (*Thalia geniculata*), and cord grass (*Spartina bakeri*).

**Photo:** Native water paspalum plant found in Howell Creek.

Lake Waumpi was also surveyed during this inspection. It appeared that some of the lily pads in the lake had been treated. However, the entrance to the creek was still blocked with lily pads. No SAV was found in Lake Waumpi; there was only detritus (organic sediment) along the lake bottom. Most of Lake Waumpi’s shoreline was dominated by invasive species including burhead sedge, primrose willow, Carolina willow, cattails, alligator weed, and salvinia. Many of
these invasives were beginning to form large floating mats. Without management, these mats will eventually sprawl into the open waters of the lake.

The secchi reading (water clarity) in Lake Waumpi was 3.8 feet in a depth of 4 feet. No triploid (sterile) grass carp fish were observed. LakeWatch water quality data for Lake Waumpi can be found on the Seminole County Watershed Atlas at: http://www.seminole.wateratlas.usf.edu/lake/default.asp?wboid=151861&wboidatlas=lake.

9-17-2013

On September 17, 2013, Thomas Calhoun (Seminole County Lake Management Program) and Joey Cordell (Seminole County Watershed Management Intern) surveyed the aquatic plants in Howell Creek and Lake Waumpi.

Five species of native submerged aquatic vegetation (SAV) were observed during the inspection. These SAV species included: coontail, roadgrass, southern naiad, bladderwort, and eelgrass. The eelgrass had grown enough to top out (reach the surface) in 2 feet of water close to Lake Waumpi. Several floating mats of roadgrass had formed just downstream from the canopied bend of Howell Creek. The carp had continued to eat the hydrilla and only one sprig was found in the creek.

Photo: Floating roadgrass mats.
The inspection resulted in the identification of four invasive emergent vegetation species in Howell Creek: alligator weed, elephant ear, torpedo grass, and cattail. The alligator weed expanded since the previous inspection. Invasive species observed in the creek also included two floating species: water hyacinth and salvinia. A few large clusters of water hyacinth had formed along the shoreline of the creek near the lake. After last month’s herbicide treatment of lilies, the plants’ large rhizomes had floated to the surface.

Photo: Yellow cow lily rhizome.

Lake Waumpi had many invasive species around its perimeter. These species included: Carolina willow, Mexican primrose, burhead sedge, cattail, alligator weed, and salvinia. Large floating mats along the shoreline were reducing the area of the lake. No submerged vegetation was found in Lake Waumpi.

Photo: Floating mat on Lake Waumpi
The secchi disk (tool for measuring water clarity) in Lake Waumpi was visible on the bottom at a depth of 4 feet. No triploid (sterile) grass carp fish were observed.

8-28-2013

On August 28th, 2013, Thomas Calhoun (Seminole County Lake Management Program) and Joey Cordell (Seminole County Watershed Management Intern) surveyed the aquatic plants in Howell Creek and Lake Waumpi.

Four species of native submerged aquatic vegetation (SAV) were observed during this inspection. These species included: coontail, bladderwort, eelgrass, and roadgrass, each to a depth of 2 feet. One patch of hydrilla was found, but it was evident that grass carp had been eating it.

Photo: Bladderwort.
Invasive emergent vegetation observed during the inspection included: alligator weed, elephant ear, Mexican primrosewillow, wild rice, and torpedo grass. The torpedo grass was notably scarce in the creek. The yellow cow lilies that clump at the mouth of Howell Creek were killed back by the MSBU-funded herbicide contractor. Native vegetation observed during the inspection included pickerelweed and yellow cow lily.

**Photo: View of Lake Waumpi from Howell Creek.**
Entry into Lake Waumpi from Howell Creek was easier during the last inspection because of a reduction in yellow cow lilies. Vegetation in the middle of the lake had been reduced, but the invasive plants on the shoreline were still prominent. The most prominent species were: burhead sedge, primrose willow, Carolina willow, cattails, alligator weed, and salvinia. These invasive species reduce the size of the lake as they grow out away from the shoreline as floating mats. No submerged vegetation was found in Lake Waumpi.

The secchi disk was visible on the bottom of Lake Waumpi at a depth of 4.7 feet. One triploid (sterile) grass carp fish was observed.

**Recommendations:**

1. Work together with other lakefront owners. Have *at least* one annual waterbody association meeting, invite guest speakers (such as county or state biologists) and discuss lake specific issues, especially nutrients/lake management recommendations. Seminole County Lake Management Program 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).
Increase educational outreach programs i.e. Shoreline Restoration Workshops (planting days), Florida Yards and Neighborhoods (FYN), Lake Management Video mail-outs, and spread the word about reducing personal pollution by reducing fertilizer use, using only 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 of these activities aid in protecting your waterbody! Contact Seminole County Lake Management Program (407) 665-2439 for free educational programs available.