

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 **July 17th, 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 found during the inspection. These SAV species included road grass, bladderwort, and eelgrass each to a depth of 2 feet. A few sprigs of hydrilla were observed during this inspection. We will continue to monitor the hydrilla to see if any further action will be necessary.

Photo: Road grass found in creek.



Invasive emergent vegetation found during the inspection included: elephant ear, alligator weed, and torpedo grass. A small amount of water hyacinth, an invasive floating aquatic plant, was observed during inspection. 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. Native vegetation found during the inspection included: canna lily, pickerelweed, yellow cow lily, and pennywort. 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: Typical shoreline found on 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 is still blocked with lily pads. No SAV was found in Lake Waumpi; 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 visible on the bottom at a depth of 3feet. 4 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?wbodyid=151861&wbodyatlas=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; 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.

5/15/213

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On **May 15th, 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**.

Only two species of submersed aquatic vegetation (SAV) were found during the inspection. These SAV species included roadgrass and eelgrass both to a depth of 2 feet. Hydrilla was not observed during this inspection.

Photo: Eelgrass found in creek.



Invasive emergent vegetation found during the inspection included: elephant ear, alligator weed, and torpedo grass. A small amount of water hyacinth, an invasive floating aquatic plant, was observed during inspection. Native vegetation found during the inspection included: canna lily, pickerelweed, yellow cow lily, and pennywort. The entrance to Lake Waumpi is beginning to be filled by yellow cow lily and pennywort impeding access however this area is not within the MSBU assessment boundary of Howell Creek.

Photo: Water hyacinth found during inspection.



Photo: Howell Creek at Lake Waumpi.



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 cordgrass (*Spartina bakeri*).

Photo: Howell creek resident.



Lake Waumpi was also surveyed during this inspection. No SAV was found in Lake Waumpi; 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 visible on the bottom at a depth of 3.5 feet. 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>.

3/26/2013

On **March 26th, 2103** Thomas Calhoun (Seminole County Lake Management Program) and Devin Whitney (Seminole County Watershed Management Intern) surveyed the aquatic plants of **Howell Creek and Lake Waumpi**.

Four species of submersed aquatic vegetation (SAV) were found during the inspection. These SAV species included: roadgrass, eelgrass, baby's tears, and hydrilla. Hydrilla was observed in as few/sparse sprigs.

Photo: Roadgrass topped out along the banks of the creek.



Invasive emergent vegetation found during the inspection included: elephant ear, alligator weed, and torpedo grass. Both torpedo grass and alligator weed were found in small amounts. Elephant ear is currently not being treated because it is stabilizing the bank in several areas along the creek. A small amount of water hyacinth was observed during this inspection. Native vegetation observed included: canna lily, pickerelweed, yellow cow lily, and pennywort. It is recommended to expand emergent native species within the creek such as canna lily, pickerelweed, and duck potato.

Photo: Exotic elephant ear assisting in stabilizing the bank.



Lake Waumpi was also surveyed during this inspection. No SAV was found in Lake Waumpi; 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. Secchi (water clarity) was not taken during this inspection.

Photo: Burhead sedge mat in Lake Waumpi



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; 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.