

Greetings Lakes Martha and Burkett Residents!

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

- Hydrilla update
- Submersed Aquatic Vegetation (SAV)
- Emergent vegetation
- SERV restoration event
- Recommendations for you and your lake

On **June 12th, 2017**, Seminole County Lake Management Program (SCLMP) staff, Thomas Calhoun and Joey Cordell, surveyed the aquatic plants in **Lakes Martha and Burkett**.

One patch of hydrilla was observed during the inspection. This patch was on the north side of Lake Burkett in very shallow water (<1ft). The patch will be targeted by the MSBU funded herbicide contractor. The ski course was inspected, and no deep water hydrilla was observed.

Four species of native submersed aquatic vegetation (SAV) were observed during the inspection including: lemon bacopa to 2 ft, loose watermilfoil to 3 ft, bladderwort to 6 ft, and eelgrass to 4 ft.

Photos: Bladderwort (native).



Exotic emergent vegetation observed during the inspection included: alligator weed, wild taro, dwarf papyrus, primrose willow, torpedograss, cuban bur-head sedge, and creeping oxeye. Torpedograss has expanded where the low water exposed levels bare shoreline.

Native emergent vegetation included: golden canna, buttonbush, sawgrass, flat sedge, spikerush, pennywort, hempvine, spatterdock, fragrant water lily, banana lily, maidencane, pickerelweed, duck potato, carolina willow, fire flag, and cattail. Less spikerush was observed on Lake Martha than during the previous inspection.

On May 20th, 2017, Seminole County's SERV Program, Orange County EPD, and Trinity Prep held another volunteer restoration event. During this even the volunteers planted 4,000 native shoreline plants at 5 sites. Species planted included: canna, duck potato, pickerelweed, sofrush, iris, and fire flag. The low water level at the time of the restoration event provided great conditions for the volunteers to plant deep in the soil. Most of the sites had a good survival rate.

Photo: SERV planting site.





The secchi reading (measurement for water clarity) was 3.3 ft in a depth of 9.6 ft. This is a reduction from the May reading of 5.1 feet in a depth of 16.6 ft. No grass carp fish were observed during the inspection. All of this information and more can be found online at either County's Water Atlas website:

<http://www.seminole.wateratlas.usf.edu/lake/waterquality.asp?wbodyid=7521&wbodyatlas=lake>
<http://www.orange.wateratlas.usf.edu/lake/?wbodyatlas=lake&wbodyid=7521>

7-17-2017

On **July 17th, 2017**, Seminole County Lake Management Program (SCLMP) staff, Joey Cordell and Alyssa Alers, surveyed the aquatic plants in **Lakes Martha and Burkett**.

In June a patch of hydrilla was observed on the north side of Lake Burkett. That patch was treated by the MSBU funded herbicide contractor. During this inspection it was observed that the hydrilla patch was reduced to two small sprigs. Hydrilla was observed to a maximum depth of 1 ft.

Eight species of native submersed aquatic vegetation (SAV) were observed during the inspection including: lemon bacopa, roadgrass, baby's tears to 1 ft, loose watermilfoil to 3 ft, southern naiad, eelgrass to 4 ft, and two species of bladderwort to 9 ft. These eight species provide a healthy level of biodiversity in the submersed plant communities. They also play an important role in the lakes ecosystem by reducing nutrients and providing habitat for aquatic wildlife.

Photos: Bladderwort, eelgrass, and southern naiad (all native).



Exotic emergent vegetation observed during the inspection included: wild taro, dwarf papyrus, barnyard grass, primrose willow, torpedograss, cuban bur-head sedge, and creeping oxeye.

Photo: Torpedograss (invasive).



Native emergent vegetation included: canna, sawgrass, spikerush, rush furiana, pennywort, sofrush, spatterdock, fragrant water lily, banana lily, maidencane, pickerelweed, duck potato, carolina willow, bulrush, fire flag, cattail, and carolina redroot.

Photo: Fragrant water lily (native).



The secchi reading (measurement for water clarity) was 4.9 ft in a depth of 23.7 ft. This is an increase from the June reading of 3.3 feet in a depth of 9.6 ft. One grass carp fish was observed during the inspection. All of this information and more can be found online at either County's Water Atlas website:

<http://www.seminole.wateratlas.usf.edu/lake/waterquality.asp?wbodyid=7521&wbodyatlas=lake>

<http://www.orange.wateratlas.usf.edu/lake/?wbodyatlas=lake&wbodyid=7521>

Lake Recommendations:

1 Work together or establish a lake association with other lakefront owners to control invasive plants and increase native aquatic plantings along shoreline (such as pickerelweed and duck potato). Have at least one annual lake association meeting, invite guest speakers (such as county or state biologists) and discuss lake specific issues.

2 Take advantage of free educational outreach programs i.e. Shoreline Restoration Workshops (planting days), Florida Yards and Neighborhoods (FYN), Lake Management Video mail-outs, and presentations on decreasing "pointless personal pollution" by reducing overall fertilizer use and only using phosphorous-free fertilizers. You can also visit the Water Atlas (<http://www.seminole.wateratlas.usf.edu/>) to read interesting information about your specific waterbody, and our website (http://www.seminolecountyfl.gov/pw/roadstorm/wq_lakemgt.aspx) to watch educational videos and download lake management pamphlets. Please contact Seminole County Lake Management Program, at (407) 665-2439 or Orange County Lake Management Program at (407) 836-1409 for further assistance.