

Greetings Lake Howell Residents!

Please find the bioassessment report for your lake below. The next scheduled inspection for your lake is August 11th. Key highlights of this update include:

- Fertilizer ordinance
- Hydrilla update
- Native Submersed Aquatic Vegetation
- Emergent vegetation
- Recommendations for you and your lake

On **July 13th, 2017**, Lake Management Program staff, Gloria Eby, Thomas Calhoun, and Joey Cordell, surveyed the aquatic plants in **Lake Howell**.

The Seminole County Board of County Commissioners approved a “New” Fertilizer Ordinance, effective February 28, 2017, that regulates fertilizers containing nitrogen and/or phosphorous and provides specific management guidelines for fertilizer application in order to minimize negative impacts to our natural waterbodies. Enforcement of the Fertilizer ordinance will not begin until October 1, 2017. The key highlights of the Fertilizer Ordinance are:

- Fertilizer containing nitrogen and/or phosphorous cannot be applied to turf during the restricted season from June 1st – September 30th. Fertilizer containing Iron, Manganese and other “micronutrients” also referred to as “summer blends” can be applied during the restricted season to keep lawns healthy and green (as recommended by Florida Yards Neighborhood/Florida Friendly Landscape Program).
- Fertilizer containing nitrogen that is used during the **non**-restricted season (October 1st – May 31st) must contain *at least* 50% or more slow release nitrogen. This slow release nitrogen content will increase to 65%, three (3) years after adoption (March 1, 2020).
- Fertilizer containing phosphorus cannot be applied to turf or plants unless a state certified soil or tissue test verifies that there is a phosphorus deficiency. For more information about soil & tissue testing, contact your local UF/IFAS Extension office at 407-665-5560.
- Use of deflector shields are required when applying fertilizer if you are using a broadcast or rotary spreader.
- No fertilizer may be applied within 15 feet of any pond, lake, stream, canal, or other waterbody, including wetlands.
- No grass clippings or other landscape debris should be washed, swept or blown into stormwater drains, ditches, canals, lakes, sidewalks or roadways. Grass clippings can be blown back onto lawn or collected for proper disposal.

The overall goal of this ordinance is to minimize excess fertilizer runoff and protect the County’s natural water resources. If you would like someone to speak at your Homeowners Association meeting or you would like to attend one of our Fertilizer Workshop, please call 407-665-5575 or visit www.seminolecountyfl.gov/fertilizer.

Hydrilla was observed to a depth of 9 ft. New hydrilla growth was found from both tubers and turions. Tubers are starchy growths that form on the rhizomes of hydrilla. Turions are compressed shoots that grow at the plant's leaf or branch nodes. Both of these structures lay dormant in the lake's sediment before growing into a new hydrilla plant. Turions can lay dormant for up to 8 months while tubers can survive up to 5 years of dormancy. In ideal conditions, 1 square meter of hydrilla can produce as many as 6,000 tubers.

Hydrilla found inside the recent band treatment zone showed signs of herbicide impact. Healthy hydrilla sprigs were found spread out in other areas of the lake.

Photo: Tubers (brown) and turions (green).



Photo: Hydrilla (invasive).



Native SAV observed during the inspection included: coontail to 6 ft, southern naiad to 7 ft, and eelgrass to 6 ft. Eelgrass was the dominant SAV.

Photo: Coontail (native) and eelgrass (native).



Native emergent vegetation observed during the survey included: golden canna, buttonbush, spatterdock, fragrant water lily, pickerelweed, duck potato, carolina willow, bulrush, and cattail. The native plants were very healthy.

Photo: Fire flag (native).



Invasive emergent species observed included: alligator weed, wild taro, water hyacinth, primrose willow, torpedograss, and brazilian pepper tree. Water hyacinth was found washing in from Cassel Creek.

The Secchi measurement (water clarity) was 3.0 feet in a total depth of 10.5 feet. The lake elevation was 52.90 feet above sea level at the time of inspection. No grass carp were observed during the inspection.

Lake Recommendations:

1. Control of aquatic and wetland plants will also require a Florida Fish and Wildlife Conservation Commission (FWC) aquatic plant control permit. Contact Kristine Campbell at 407-858-6170 or Kristine.Campbell@myfwc.com for assistance in obtaining the permit and further recommendations.
2. Increase outreach programs, i.e. Shoreline Restoration Workshops, Florida Friendly Landscaping (FFL), Lake Management Video mail outs, and reduction of personal

pollution by: decreasing fertilizer usage and following the “New” Seminole County Fertilizer Ordinance guidelines (www.seminolecountyfl.gov/fertilizer), by using only phosphorous free fertilizer, at least 50% or more slow release nitrogen, no nitrogen or phosphorous during June 1st – September 30th, and utilizing no fertilizer within 15 feet of any waterbody, including wetlands. Also, keeping a functional shoreline with beneficial native aquatic plants along with keeping grass clippings out the stormdrains and your lake will help aid in protecting your lake. Contact Seminole County Lake Management Program at 407-665-2439 for more information about the free educational programs available.

3. Help spread the word! Obtain email addresses from neighbors not currently on the distribution list. Valuable information is contained within these assessments