

Greetings Lake Howell Residents!

Please find the bioassessment report for your lake below. The next scheduled inspection for your lake is March 13<sup>th</sup>. Key highlights of this update include:

- Hydrilla and other exotic submersed aquatic vegetation (SAV)
- Native Submersed Aquatic Vegetation
- Emergent vegetation
- Recommendations for you and your lake

On **December 14<sup>th</sup>, 2016**, Lake Management Program staff, Thomas Calhoun and Joey Cordell, surveyed the aquatic plants in **Lake Howell**.

Three invasive submersed aquatic vegetation (SAV) species were observed during the inspection. These species were hydrilla, hygrophila, and parrot feather. Hydrilla was found on the west side of the lake at the mouth of Cassel Creek, in the northwest cove, and in the southeast cove. Some of the observed hydrilla was growing from tubers. A small unhealthy sprig of hygrophila was found at the mouth of Cassel Creek. This spot had recently been treated. Two other locations where hygrophila had recently been observed were absent of hygrophila. Hygrophila is more commonly found in the flowing water of streams. Parrot feather was found at one location on the north shore by Red Bug Outfall.

**Photo: Hydrilla tuber.**



Native SAV observed during the inspection included: coontail to 2 ft, southern naiad to 7 ft, and eelgrass to 4.5 ft. Eelgrass is the dominant SAV and has increased in all areas of the lake.

Native emergent vegetation observed during the survey included: bur-marigold, golden canna, swamp lily, pennywort, hempvine, spatterdock, pickerelweed, duck potato, carolina willow, cordgrass, fire flag, and cattail.

**Photo: Young lily pad sprout.**



Invasive emergent species observed included: alligator weed, para grass, wild taro, water hyacinth, primrose willow, torpedograss, and papyrus. Water hyacinth will be targeted for treatment by the MSBU funded herbicide contractor.

**Photo: Duck potato and water hyacinth**



**Photo: Flock of cormorants.**



The Secchi measurement (water clarity) was 3.8 feet in a total depth of 9.7 feet. The lake elevation was 51.14 feet above sea level at the time of inspection. One grass carp was 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](mailto:Kristine.Campbell@myfwc.com) for assistance in obtaining the permit and further recommendations.
2. Increase educational outreach programs, i.e. Shoreline Restoration Workshops, Florida Yards and Neighborhoods (FYN), Lake Management Video mail-outs. Reduce personal pollution by: decreasing fertilizer usage, using only phosphorous free fertilizers, keeping a functional shoreline with beneficial native aquatic plants, keeping grass clippings out of your lake and the storm drains that lead to the lake. 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. Valuable information is contained within these assessments