

Greetings Horseshoe Lake North residents!

Below, please find the latest bioassessment for your lake. Key highlights of this bioassessment include:

- Hydrilla updates
- Native submersed aquatic vegetation (SAV)
- Invasive vegetation observations
- Native emergent vegetation observations
- Recommendations for you and your lake

On **December 21st, 2016**, Seminole County Lake Management Program (SCLMP) personnel, Thomas Calhoun and Joey Cordell, surveyed the aquatic plants in **Horseshoe Lake North**.

During inspection, a few new hydrilla patches were discovered as noted on the map below. These patches were scheduled to be treated December 28th. Previously treated patches contained little to no hydrilla. Overall less hydrilla was found than the previous inspection.

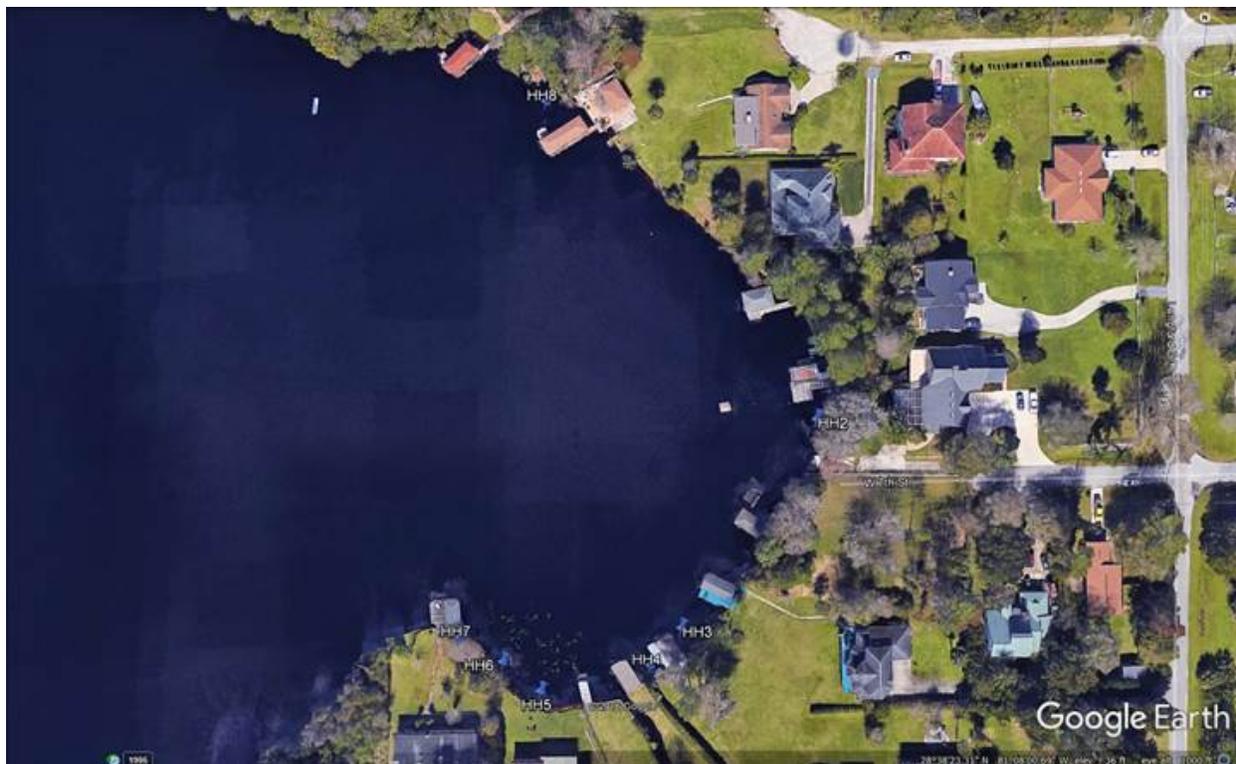


Photo: Hydrilla (invasive) along northeast shoreline. Please report hydrilla if seen.



Native SAV found included: roadgrass, southern naiad and eelgrass. Native SAV has increased in many areas of the lake and eelgrass was found in a new location on the northern shore of the lake.

Photo: Example of eelgrass (native).



Invasive emergent species included: alligator weed, wild taro, water hyacinth, primrose willow, torpedo grass, salvinia, and cuban bur-head sedge. Eleven small clusters of water hyacinth were found; most of them were along the north shore.

Photo: alligator weed (invasive).



Native emergent vegetation including: bur-marigold, golden canna, buttonbush, sawgrass, spikerush, pennywort, water grass, hempvine, spatterdock, fragrant water lily, maidencane, peltandra, pickerelweed, duck potato, lizard's tail, bulrush, fire flag, cattail, and climbing aster.

Photo: Pickerel weed blooming.



The Secchi measurement (water clarity) was 3.4 feet in a total depth of 7.5 feet. The lake elevation was 36.86 feet above sea level at the time of inspection. The grass carp barrier was inspected and found to be clear of debris and in good condition. No grass carp fish were observed during the inspection.

Recommendations for you and your lake:

- 1 LAKEWATCH volunteers provide valuable water quality data for your lake. Obtain monthly samples and establish a back-up volunteer for consistent data collection.
- 2 Work together 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 nutrients and lake management recommendations. SCLMP staff would be glad to present our findings from this and other surveys.

3 Continue to establish a beneficial native shoreline for Horseshoe Lake North, especially in locations that are devoid of emergent aquatic plants. SCLMP recommends planting in new locations that are shallower and have more sunlight.

4 Native and non-native invasive species sometimes grow very close together, making the non-native species difficult to treat. Non-native species can be hand-pulled from patches of native plants, or a directed herbicide treatment can be used to target the non-native species. Although directed treatments may impact adjacent native species, such herbicides may be necessary to prevent expansion of the non-native species. For overall success in lake management, everyone must become stewards of the lake. Residents should assist whenever possible in the removal of non-native plants in close proximity to native vegetation, and replant the area with beneficial native plants.

5 Utilize the valuable educational outreach programs that are available to you: Shoreline Restoration Workshops, Florida Yards and Neighborhoods (FYN) interactive presentations, and Lake Management Video mail-outs. Implement a media campaign within the community to promote the reduction of personal pollution; encourage residents to decrease their overall fertilizer usage, use only phosphorous-free and slow-release nitrogen fertilizers, keep a functional shoreline with beneficial native aquatic plants, and keep 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.

6 Help spread the word! Obtain email addresses from neighbors not currently on the distribution list in order to share these reports. Valuable information is contained within these assessments.