

Greetings Sylvan Lake residents!

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

- Submersed aquatic vegetation (SAV) update- good diversity observed!
- Hydrilla update- found intermixed with native SAV in 2 canals
- Emergent plants- native maidencane found abundant and increase in cattails observed
- Recommendations for you and your waterbody

On **May 1st, 2014**, Seminole County Lake Management and Water Quality Program personnel (Thomas Calhoun, Gloria Eby, and Marianne Pluchino) with Stephen Fussell (Seminole County's Office of Organizational Development) surveyed the aquatic plants and conducted a Lake Vegetation Index (LVI) in **Sylvan Lake**.

The LVI was created by the Florida Department of Environmental Protection as a rapid screening tool for ecological condition; it determines how closely a lake's flora resembles that of an undisturbed lake. Sylvan Lake is 188 surface acres in size and is located in the Yankee Lake watershed. Historical LVI scores range from 54 to 77 with the most recent score of 54. All of the scores were in the healthy range.

Eight species of submersed aquatic vegetation (SAV) were found during the inspection, seven of which were native species. These native species included: lemon bacopa to 2 feet, water thread pondweed to 2 feet, coontail to 2 feet, strap-leaf sagittaria to 2 feet, eelgrass to 2 feet, road grass to 8 feet, and stonewort to 9 feet. Road grass was the dominant species of SAV at time of inspection. Both strap-leaf sagittaria and eelgrass have expanded in the inshore areas of the lake. Native SAV plays an important role within Sylvan Lake by providing wildlife habitat, reducing nutrients, and competing for space with hydrilla.

Photo: Examples of road grass (left) and coontail (right); both beneficial native SAV.



Hydrilla was the only invasive exotic SAV species that was found in the 2 western canals just north of Sylvan Lake Park. This is the greatest presence of hydrilla found in these locations to date. Because hydrilla is a highly invasive aquatic plant, it is recommended to treat (with herbicides) this plant in efforts to prevent a lake-wide infestation. Please note that management of aquatic plants requires a Florida Fish and Wildlife Conservation Commission (FWC) aquatic plant management permit (which is free). Please contact FWC regional biologist Alicia Knecht at (321) 246-0682 or Alicia.Knecht@myfwc.com to obtain this permit. For more information please visit FWC's website at: <http://www.myfwc.com/license/aquatic-plants/>.

Photo: Locations of hydrilla found during inspection.

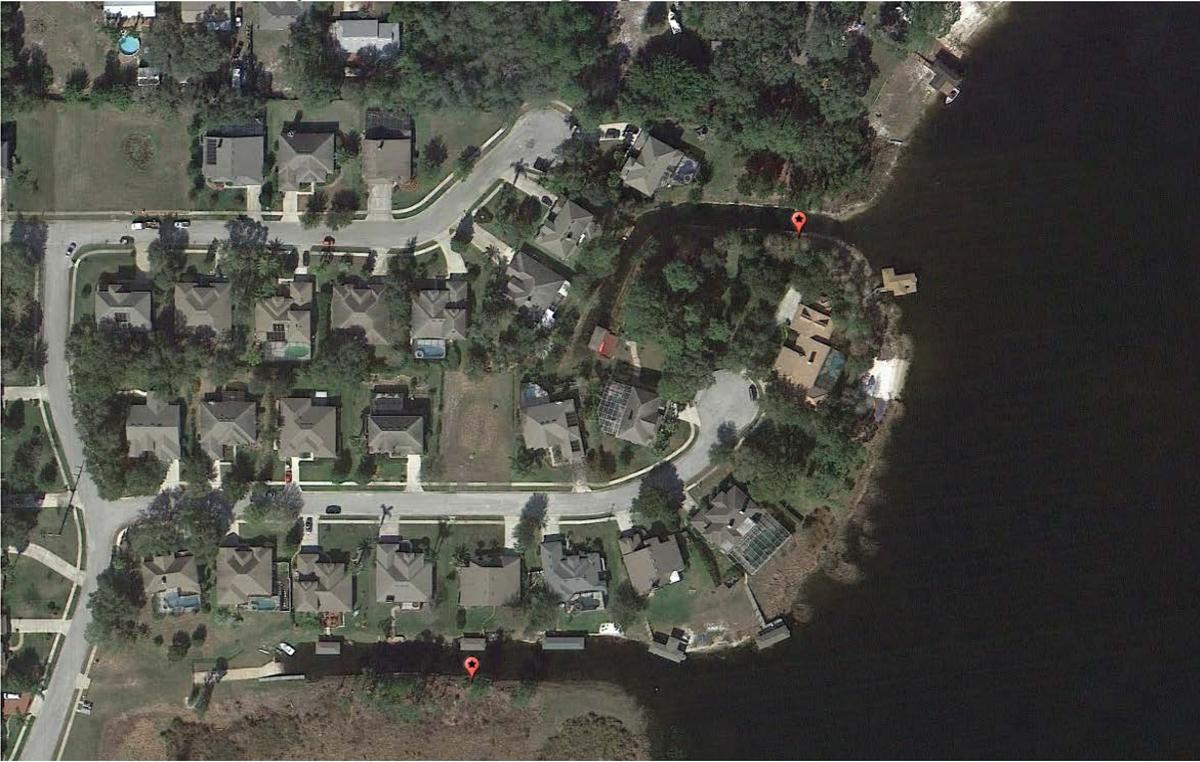


Photo: Hydrilla just below the water's surface.



Access to the north canal system along Sylvan Ct. was inaccessible by boat due to vegetation and low water conditions. The invasive species water hyacinth, torpedo grass, and burhead sedge were visually present from the opening of the canal. Native species were also present, including pickerelweed, maidencane, and duck potato. Burhead sedge and water hyacinth could possibly impede future access in the canal and could infest the main lake if not treated.

*Please note that the canals are permit exempt from the Florida Fish and Wildlife Conservation Commission's aquatic plant permitting process. Any chemical treatment within Sylvan Lake will require an aquatic plant permit from FWC.

Photo: Entry of canal inaccessible.



Sylvan Lake's shoreline is mostly natural containing many native aquatic plants. The most abundant native species observed included were: maidencane, pickerelweed, and sawgrass. Watershield, a floating plant, was found to be expanding in several locations. This plant has a particularly interesting characteristic; it contains a slimy coat that helps to deter predation.

The invasive exotic species that were observed during this inspection included: torpedo grass, primrose willow, cattails, and Brazilian pepper. Cattail was expanding the most. SCLMP recommends treating these invasive/exotic plants (especially torpedo grass and water hyacinth), then replacing them by planting native emergent plants, or allowing the existing native plants present to expand within the treated locations.

Photo: Cattails expanding into lake.



Photo: Native watershield (has a slimy coat on plant).



Photo: Native maidencane providing nesting habitat for sandhill cranes.



During the inspection we found several shorelines cleared of beneficial aquatic vegetation. Aquatic vegetation plays an important role in maintaining and protecting the water quality of your lake, providing shoreline stabilization, and supporting balanced fish and wildlife populations. To assist with habitat and water quality protection, Florida law (F.S. 369.20) requires all persons intending to control or remove aquatic vegetation to obtain a free permit from the Florida Fish and Wildlife Conservation Commission's (FWC) Invasive Plant Management Section unless an exemption for the activity has been provided in statute or rule (Chapters 68F-20). For more information on FWC's free permitting please visit: <http://www.myfwc.com/wildlifehabitats/invasive-plants/>

The secchi reading (measurement for water clarity) was 4.2 feet out of a total depth of 8.2 feet. More information about Lake Sylvan is available at: <http://www.seminole.wateratlas.usf.edu/lake/waterquality.asp?wbodyid=7663&wbodyatlas=lake>

Recommendations for your waterbody:

1. Work together or establish a lake association with other lakefront owners to control (and if possible eliminate) invasive plants observed during this survey and increase native aquatic plantings along shoreline (such as pickerelweed, maidencane, 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, especially lake management recommendations. Seminole County Lake Management staff would be glad to present our findings from this and other surveys.

2. Treat invasives (hydrilla, water hyacinth, frog's bit, torpedo grass, and wild taro): Either do it yourself and establish a spray program or hire a contracted aquatic herbicide application company (we can provide a list of companies). Water hyacinth/frog's bit will have to be sprayed for several months until the quantity is down to a level that can be hand removed. At that point, all the canal residents must make an effort to remove any hyacinths/frog's bit that they see. If they are not contained, they will become a Sylvan Lake problem becoming more difficult to manage and more costly to treat. These must be removed soon. Control of aquatic and wetland plants may require a Florida Fish and Wildlife Conservation Commission (FWC) aquatic plant control permit. Contact Alicia Knecht at Alicia.Knecht@myfwc.com or (321) 246-0682 for permit and recommendations.
3. These recommendations could be managed by Seminole County by establishing a Municipal Service Benefit Unit (MSBU); a funding format for aquatic weed control services via a special assessment. For additional information contact Carol Watral at (407) 665-7164 or cwatral@seminolecountyfl.gov
4. Increase educational outreach programs, i.e. Shoreline Restoration Workshops (planting days), Florida Yards and Neighborhoods (FYN), and Lake Management Video mail-outs. Provide information about reduction of pointless personal pollution, reducing total fertilizer use, using only phosphorous-free fertilizers, keeping a functional shoreline with beneficial native aquatic plants, and keeping grass clippings out of your storm drains that lead to the lake. All these activities aid in protecting your waterbody! Contact Seminole County Lake Management Program (407) 665-2439 about available, free educational programs.
5. Help spread the word! Obtain email addresses from neighbors not currently on the distribution list in order to share this information with others. Valuable information is contained within these reports.