

Subject: Sylvan Lake Assessment- March 2010
Date: Fri, 2 Apr 2010 10:39:57 -0400
From: Eby, Gloria <GEby@seminolecountyfl.gov>

Hello!

Please find our observations and recommendations for your lake below!

On **23 March 2010**, Seminole County Water Lake Management Program (LMP) staff, Gloria Eby, Dean G Barber (Consultant) and Thomas Calhoun (Assistant Biologist) surveyed the aquatic plants in Sylvan Lake. Most of the emergent aquatic plants are starting to recover from the winter months and showing signs of new spring growth. More waterfront owners seem to be allowing more of these plants along their waterfront. A very good lake management practice! The most abundant of these are the natives; maidencane grass, cattails, pickerelweed, sawgrass and the invasive exotic, torpedo grass. LMP recommends that the cattails and torpedo grass be impacted and beneficial native emergent plants be planted or allowed to expand in these locations. These natives will compete for space with exotics, help prevent erosion, absorb nutrients and provide habitat for primarily fish and wading birds.

Primary floating and submersed invasive exotic aquatic plants observed were water hyacinth and hydrilla. The hyacinth population within the canal system bordering the streets of Sylvan Court, Lake Drive and Maureen Drive was reduced from the 2 December 2009 survey (because of resident's efforts), however more hyacinths were observed within the canal area outside of this than previously noted. Also some hyacinths were observed on the SW side of the lake, not previously reported in this area. Residents should remove isolated populations of water hyacinth to prevent them from establishing in new areas of the lake. Hydrilla which was previously reported in the canal/boat ramp, adjacent to Aprelle Drive and Grand Cypress Point in the NW corner of the lake was still observed there. Although hydrilla has been observed in the lake over the previous years, it has not been seen lately. Worst case is that if it establishes to impede navigation within the lake, it could cost \$30,000-100,000 to control in Lake Sylvan and then this could be repeated every 1-5 years. Cost to get it out of the canal could be a few hundred dollars compared to thousands in the lake.

The native submersed aquatic vegetation (SAV), the most important aquatic plants within a waterbody because their sheer volume can be a key factor in good water quality, included: coontail, road grass (observed to a depth of 8 feet), water thread pondweed and bladderwort (*Utricularia inflata*). This bladderwort is in several areas showing yellow flowers just above the waters surface primarily in the area north of Lake Sylvan Park. Most dominant aquatic plants in the lake were all natives and included sawgrass (*Cladium jamaicense*), spatterdock (*Nuphar lutea*), maidencane and fragrant water lily (*Nymphaea odorata*). All of these are very desirable and will be reduced through time if the torpedo grass is allowed to expand.

Secchi reading (water clarity) was 5.2 feet in a depth of 8.5 feet compared to the 2 December 2009 reading of 5.1 feet. Secchi has ranged from 0.5-8.5 ft. in over a 128 samples from 2/82 to present. Water elevation was 40.72 feet compared to previous reading of 39.91 feet with a range of 32.9-41.96 ft. in over 315 samples from 10/78 to present. This data and much more about Lake Sylvan is available at:

<http://www.seminole.wateratlas.usf.edu/lake/?wbodyatlas=lake&wbodyid=7663>

Recommendations:

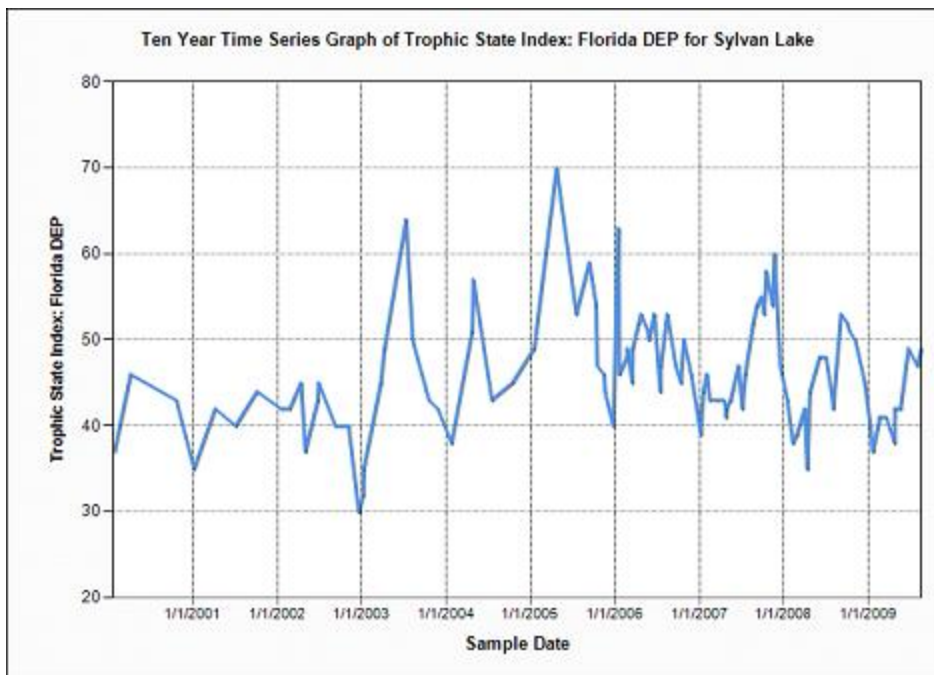
- 1 Work together or establish a lake association with other lakefront owners to control and if possible, eliminate invasive plants observed during this survey and increase native aquatic plantings along shoreline (such as pickerelweed, maidencane grass and duck potato). Have at least one annual lake 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. Contact Gloria Eby, (407) 665-2439.

2 Treat invasives (hydrilla, water hyacinth, torpedo grass and wild taro): Either do it yourself, obtain the required herbicide (we can provide some sources) and establish a spray program or hire a contracted aquatic herbicide application company (we can provide a list of companies). Water hyacinth 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 residence must make an effort to remove any hyacinths that they see. If the water hyacinths are not contained, they will become a Sylvan Lake problem and will be more difficult to manage. Presently, there are very few in the lake. These must be removed soon. Control of aquatic and wetland plants could require a free Florida Fish and Wildlife Conservation Commission (FWC) aquatic plant control permit. Because the canal system is less than 10 acres, no permit is required for the canal. Contact Amy Giannotti at (407) 275-4004 or amy.giannotti@myFWC.com for a permit.

3 These recommendations could be managed by Seminole County by establishing a Municipal Service Benefit Unit (MSBU); a funding format for aquatic weed control via special assessment. For additional information contact Carol Watral at (407) 665-7164 or cwatral@seminolecountyfl.gov or <http://www.seminolecountyfl.gov/fs/msbu/>.

4 Increase educational outreach programs i.e. Shoreline Restoration Workshops (planting days), Florida Yards and Neighborhoods (FYN), Lake Management Video mail-outs, and reduction of pointless personal pollution (contact Seminole County Lake Management Program, Gloria Eby, (407) 665-2439 for assistance).

Graph below indicates nutrient levels (measured by the Trophic State Index [TSI]). A score of 60 or above is considered impaired for tannic lakes.



Thanks!

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Be sure to visit <http://www.seminole.wateratlas.usf.edu/LakeManagement>