Tuskawilla Lake 5/30/2012

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

- Annual Lake Vegetation Index (LVI) assessment results- significant improvements in results noted
- Status of Submersed Aquatic Vegetation (SAV)- increase in natives such as southern naiad observed
- Status of shoreline emergent vegetation- loss of plants (except canna) due to extended low water conditions
- Recommendations for you and your lake

On **May 30th, 2012**, Seminole County Lake Management Program (SCLMP) staff (Gloria Eby, Marianne Pluchino, and Thomas Calhoun) surveyed the aquatic plants in Tuskawilla Lake and conducted a Lake Vegetation Index (LVI) assessment.

The LVI was created by the Florida Department of Environmental Protection as a rapid screening tool (bioassessment) for ecological condition; it determines how closely a lake's flora (aquatic plants) resembles that of an undisturbed lake.

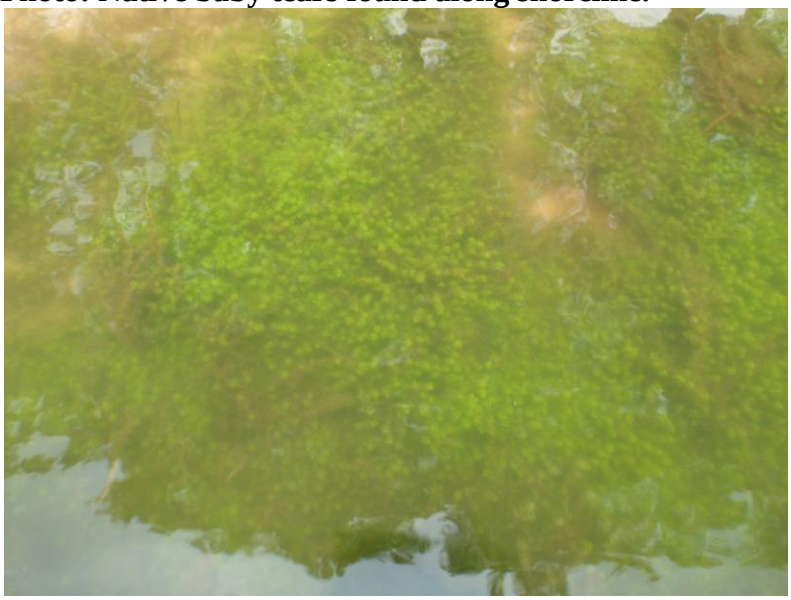
Tuskawilla Lake is 92 surface acres in size with a mean depth of 6 feet, maximum depth of 23 feet, and is located in the Little Lake Howell watershed. Historical LVI scores range from 41 (in 2009) to 69 (in 2012). All scores are within the healthy category. The significant increase in the LVI score can be directly attributed to the efforts over the years to improve the shoreline of Tuskawilla Lake. **Kudos to this lake community for taking an active role in improving your waterbody!**

LVI Range	Description
78-100	Exceptional
38-77	Healthy
0-37	Impaired

Native submersed aquatic vegetation (SAV) observed during this survey consisted of: baby tears to 2 feet, southern naiad to 4 feet, stonewort (nitella) to 6 feet, and eelgrass to 3 feet. The invasive exotic hydrilla was not observed during this survey.

Photo: Native stonewort collected during sample.

Photo: Native baby tears found along shoreline.

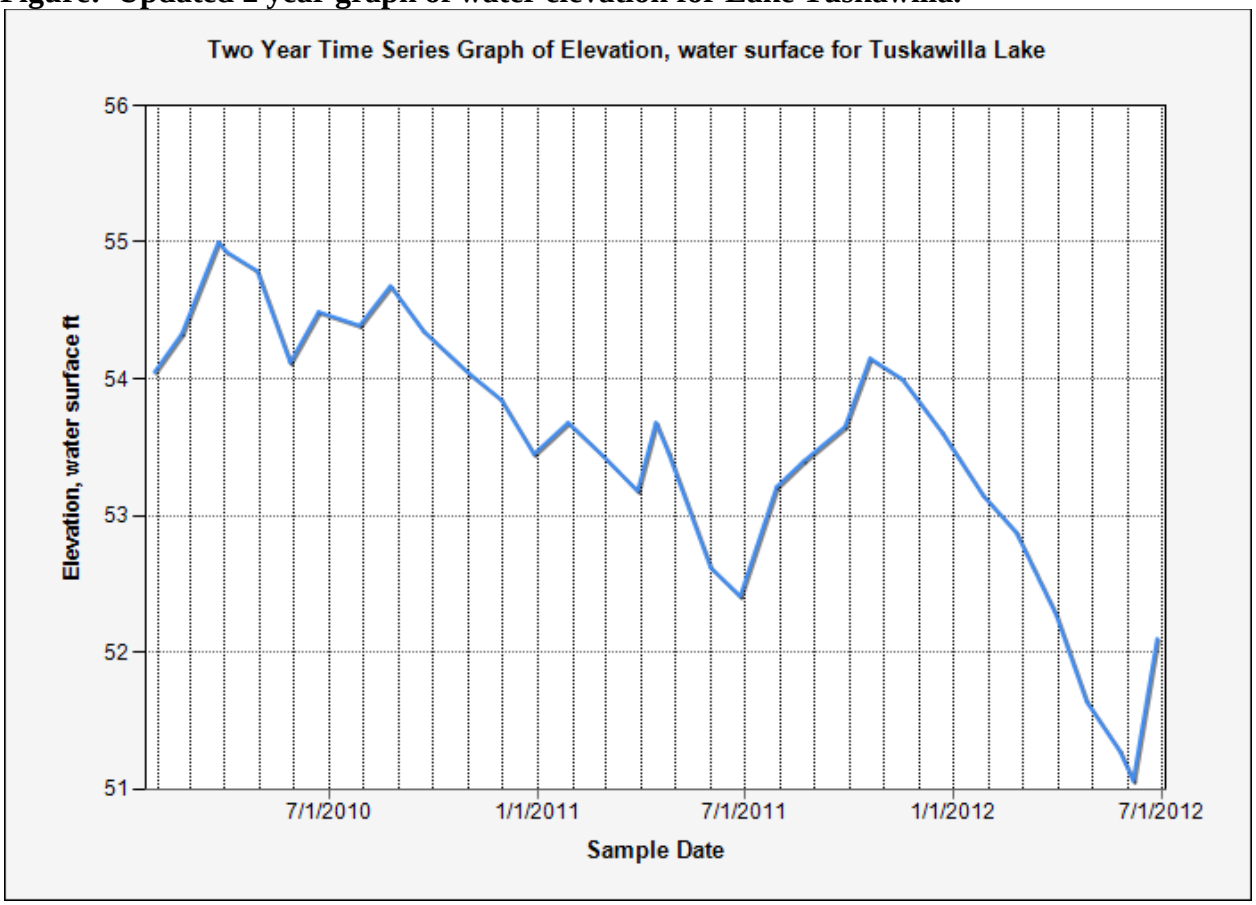


The recent drought and low water condition appears to be impacting the planted native emergent aquatic plants. During inspection, canna overall was performing the best as it has a higher drought tolerance than pickerelweed or duck potato. Lake Management Program recommends taking advantage of the low water conditions and replanting now. Planting above the current water line will ensure enough water for establishment of the new plants and provide the right location for when the water rises again. Below you will find an updated figure illustrating the water fluctuations in your lake over the past 2 years.

These natives (which include pickerelweed, duck potato, and canna) are key to inhibiting the expansion or establishment of invasives such as torpedo grass and cattails. Once established,

these desirable plants will help reduce shoreline erosion and nutrients from stormwater run-off entering your lake.

Figure: Updated 2 year graph of water elevation for Lake Tuskawilla.



The secchi reading (measurement for water clarity) was 5.5 feet in a depth of 23.1 feet compared to 6 feet in a previous survey. The lake gauge was 52.1 feet above sea level at time of inspection. No grass carp fish were observed during survey.

Recommendations:

1. Work together or establish to control and if possible, eliminate invasive plants and increase native aquatic plantings along shoreline (such as pickerelweed, canna, and duck potato)**.** Have at least one annual lake association meeting, invite guest speakers (such as county or state biologists) to discuss lake specific issues.

2 Treat invasive torpedo grass and other invasive aquatic plants along your waterfront. Either do it yourself by hand removal or obtain the necessary aquatic herbicide (we can provide some sources) or hire a contracted aquatic herbicide application company (we can provide a list of

companies). Control of aquatic and wetland plants will in most cases requires a free Florida Fish and Wildlife Conservation Commission (FWC) aquatic plant control permit. Contact CJ Green at (407) 858-6170 or Carl.Greene@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 weeds 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, Florida Yards and Neighborhoods (FYN), Lake Management Video mail-outs, and reduction of 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 storm drains leading to the lake. All these activities aid in protecting your lake! Contact Seminole County Lake Management Program (407) 665-2439 for free educational programs available.

Greetings Lake Tuskawilla!

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

- Status of Submersed Aquatic Vegetation (SAV)- increase in native southern naiad observed
- Status of shoreline emergent vegetation- loss of plants (except canna) due to low water conditions
- Now is a opportune time to plant aquatic plants
- Free Aquascaping class available on **March 10th** presented by FYN Program (**flyer attached**)
- Recommendations for you and your lake

On **March 7th, 2012** Seminole County Lake Management Program (SCLMP) staff Gloria Eby and Thomas Calhoun, also joined by lake residents Cindy Susi and Virginia Lebioda, and CJ Greene with the Florida Fish and Wildlife Conservation Commission (FWC), surveyed the aquatic plants in **Lake Tuskawilla**.

Native submersed aquatic vegetation (SAV) observed consisted of: southern naiad to 5 feet, filamentous algae to 5 feet, baby tears to 2 feet, and road grass to 5 feet. The invasive exotic hydrilla was not observed during this survey.

Photo: Baby tears, southern naiad, and filamentous algae collected from lake.

The recent drought and low water condition appears to be impacting the planted native emergent aquatic plants. During inspection, canna overall was performing the best as it has a higher drought tolerance than pickerelweed or duck potato. Lake Management Program recommends taking advantage of the low water conditions and replanting now. Planting just above the current water line will ensure enough water for establishment of the new plants and provide the right location for when the water rises again. Below you will find a figure illustrating the water fluctuations in your lake over the past 2 years.

These natives (which include pickerelweed, duck potato and canna) are key to inhibiting the expansion or establishment of invasive torpedo grass and cattails. Once established, these desirable plants will help reduce shoreline erosion and nutrients from stormwater run-off entering your lake.

Figure: 2 year graph of water elevation for Lake Tuskawilla.

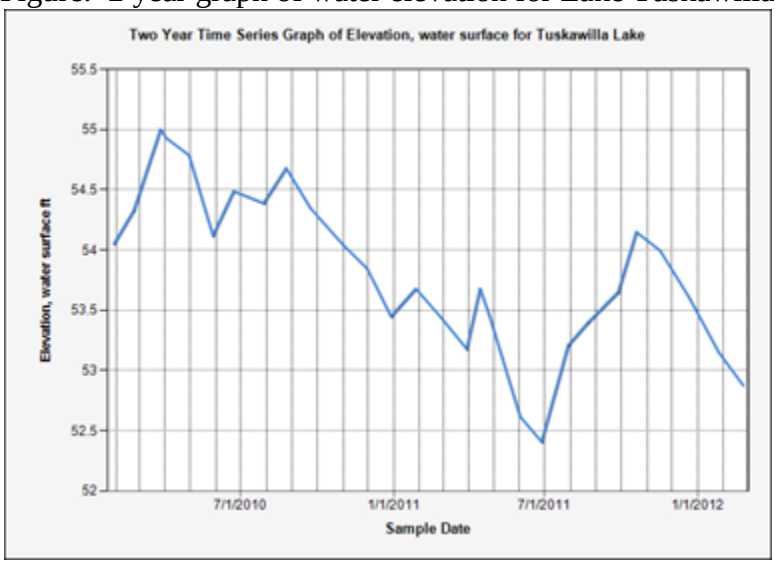


Photo: Duck potato and canna from previous restoration events. Canna is doing well lake wide.

The secchi (measurement for water clarity) was 4.9 feet in a depth of 14.7 feet compared to 5.7 feet in the previous survey.

Recommendations:

1 With the current low lake elevation, now is an optimal time to plant aquatic plants such as canna, pickerel weed, duck potato, and maidencane grass.

Free Aquascaping Class-Design and learn more about your lakeshore!
Saturday, March 10, 2012
9:30 a.m. – 11:30 a.m.
Extension Auditorium
250 W. County Home Road, Sanford
Please register by calling: 407-665-5575 or email fyn@seminolecountyfl.gov

2 Continue to treat invasive torpedo grass and other invasive aquatic plants along your waterfront as needed. Control of aquatic and wetland plants will in most cases require a free Florida Fish and Wildlife Conservation Commission (FWC) aquatic plant management permit. Contact CJ Green at (407) 858-6170 or Carl.Greene@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. Florida Yards and Neighborhoods (FYN), Watershed Action Volunteers (WAV), Lake Management Video mail-outs, and reduction of personal pollution (contact Seminole County Lake Management Program, Gloria Eby, (407) 665-2439 for assistance).

Have a great weekend!