

Greetings Sweetwater Residents,

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

- Lyngbya status
- Restoration planting event
- Native emergent vegetation
- Exotic emergent vegetation
- Recommendations for you and your waterbody

Bioassessment

3/8/2018

On **March 8th, 2016**, SCLMP personnel, Thomas Calhoun and Joey Cordell, surveyed the aquatic plants in **Sweetwater Cove**.

Lyngbya, an invasive blue-green algae, was found in all three lakes. Some areas had thick layers of this algae from the lake bottom to the surface. SCLMP's Principle Environmental Scientist, Gloria Eby, met with members of FWC and FDEP in February to discuss the use of copper algaecide to treat Sweetwater Cove's lyngbya. FWC and FDEP expressed concern over the potential release of copper into the Wekiva River (an Outstanding Florida Water). The discussion will continue in a subsequent meeting.

Photo: Restoration site on Lower Lake.



Many of the restoration sites were in great shape. However, one of the sites had recently been cut back by landscapers. It is important to understand the need for shoreline vegetation and share this knowledge with your lake neighbors to prevent the removal of beneficial native plants.

Photo: Recently cut native vegetation.



Photo: Pickerelweed (native).



No submersed aquatic vegetation (SAV) was found during the inspection.

Native vegetation included: golden canna, mosquito fern, spikerush, pennywort, soft rush, duckweed, yellow cow lily, pickerelweed, duck potato, fire flag, false lily, and blue flag iris.

Invasive exotic vegetation included: alligator weed, primrose willow, torpedograss, and salvinia.

Upper Lake was found in good shape. Native vegetation found included; yellow cow lily, pickerel weed, duck potato, pennywort and bul-rush. Invasive vegetation found included; torpedo grass, prim-rose willow, salvinia and alligator weed.

Photo: Upper Lake.



4/12/2016

On **April 12th, 2016**, SCLMP personnel, Thomas Calhoun and Marie Lackey, surveyed the aquatic plants in **Sweetwater Cove**.

Lyngbya, an invasive blue-green algae, was found in all three lakes with the majority found in the lower lake. Although found throughout the lower lake and was most prolific in the east and west ends of the lake. Herbicide treatment will continue for lyngbya through the MSBU funded herbicide program.

Photo: Lyngbya on the lower lake.



Native vegetation is establishing very well in many areas of all three lakes. Native species included: golden canna, pickerelweed, duck potato, soft rush, fire flag and spike rush.

Photo: Stands of native pickerelweed and duck potato.



Invasive exotic vegetation included: alligator weed, primrose willow, torpedograss, and salvinia.

No submersed aquatic vegetation (SAV) was found during the inspection.

Photo: Middle lake.



Upper Lake was found in good shape. Native vegetation found included; yellow cow lily, pickerel weed, duck potato, pennywort and bul-rush. Invasive vegetation found included; torpedo grass, prim-rose willow, salvinia and alligator weed. Pennywort and yellow cow lily was noted as expanding in this area. Water was is to shallow to treat by boat at this time. The area was treated by a back pack application.

Sweetwater lakes 2016 Restoration Event

On April 23rd 2016 Seminole County Lake Management Program, Seminole Education and Restoration Volunteer (SERV) program and the Sweetwater Lakes residents held their 6th lake restoration event together. Twenty five volunteers, along with County staff, planted 5,400 native plants (2400 pickerelweed, 2400 duck potato, 360 iris, 120 soft rush, and 120 fire flag).

Photo: Native vegetation being delivered to sites.



Photo: SERV volunteers planting during restoration event.



5/23/2016

On **May 23rd, 2016**, SCLMP personnel, Thomas Calhoun and Joey Cordell, surveyed the aquatic plants in **Sweetwater Cove**.

Lyngbya, an invasive blue-green algae, was found in all three lakes with the majority in the lower lake. Overall, less algae was found than in the previous inspection. Herbicide treatment will continue for lyngbya through the MSBU funded herbicide program which has been increased to 14 day interval treatments. After many discussions and review, FWC has denied Seminole County's permit request to add copper algaecides due to release concerns into the Wekiva River (an Outstanding Florida Water). The only other option viable, aside from current herbicide treatment regimen, is to mechanically harvest. Given the Outstanding Florida Water classification, there are concerns of the harvester creating turbidity violations that the County could be fined for. SCLMP's Principle Environmental Scientist, Gloria Eby, is discussing turbidity concerns with members of FDEP. As is, contractor with harvester is ready to go once we have an understanding from FDEP.

Photo: Lyngbya floating on the surface of the middle lake.



Native vegetation included: golden canna, mosquito fern, spikerush, pennywort, soft rush, duckweed, yellow cow lily, pickerelweed, duck potato, fire flag, false lily, and blue flag iris. The yellow cow lily pads were expanding in the upper and middle lake. These areas will be targeted by the Seminole County herbicide applicator during the next treatment.

Photo: Native pickerelweed bloom.



Invasive exotic vegetation included: alligator weed, primrose willow, torpedograss, and salvinia.

No submersed aquatic vegetation (SAV) was found during the inspection.

Photo: Lily pads expanding in the middle lake.



In the Upper Lake natives are expanding in the open water area. Native vegetation found included; yellow cow lily, pickerel weed, duck potato, pennywort and bul-rush. Invasive vegetation found included; burhead sedge, torpedo grass, prim-rose willow, salvinia and alligator weed. Pennywort and yellow cow lily was noted as expanding in this area. Water was is to shallow to treat by boat at this time. The area was treated by a back pack application focusing on pennywort and yellow cow lily in the open water area.

Photo: Upper Lake.



6/20/2016

On **June 20th, 2016**, SCLMP personnel, Thomas Calhoun and MSBU program project coordinator Joe Saucer, surveyed the aquatic plants in **Sweetwater Cove**.

Lyngbya, an invasive blue-green algae, was found in all three lakes with the majority in the lower lake. Overall, less algae was found than in the previous inspection. Herbicide treatment will continue for lyngbya through the MSBU funded herbicide program.

Photo: Tilapia on bed in the lower lake.



Native vegetation included: golden canna, mosquito fern, spikerush, pennywort, soft rush, duckweed, yellow cow lily, pickerelweed, duck potato, fire flag, false lily, and blue flag iris. Lily pads in the upper and lower lake were showing signs of treatment.

Photo: Native planted shoreline with lily pads showing signs of treatment in the lake.



A minimal amount of invasive exotic vegetation was found during this inspection. Invasive species included: alligator weed, primrose willow, torpedograss, and salvinia.

No submersed aquatic vegetation (SAV) was found during the inspection.

Upper Lake was found in good shape. Native vegetation found included; yellow cow lily, pickerel weed, duck potato, pennywort and bul-rush. Invasive vegetation found included; burhead sedge, torpedo grass, prim-rose willow, salvinia and alligator weed. Pennywort and yellow cow lily was noted as expanding in this area. Water was is to shallow to treat by boat at this time.

Photo: Treated yellow cow lily in Upper Lake.



Photo: Alligator in the upper lake.



Lake Recommendations:

1. 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/lake management recommendations. SCLMP staff will be glad to present our findings from this and other surveys. Continue to increase native aquatic plantings along shorelines (such as pickerelweed, duck potato, and canna).
2. Consider increasing street sweeping services during times of peak leaf fall to ensure that this debris does not enter waterways. Leaf debris contains high levels of phosphorous that can negatively impact your lakes.
3. 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.
4. Help spread the word! Obtain email addresses from neighbors not currently on the distribution list so that these reports can be shared with everyone. Valuable information is contained within these assessments.