

Greetings Prairie & Pearl Lake Residents,

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

- Submersed aquatic vegetation updates- extremely good plant diversity observed!
- Invasive/exotic plants present- Cuban burhead sedge
- Hydrilla status- minimal presence observed in both lakes (recommend treating locations reported)
- Recommendations for you and your lake

Prairie Lake

On **October 28th, 2014**, Seminole County Lake Management Program personnel (Thomas Calhoun and Gloria Eby), with Marianne Pluchino (Seminole County Water Quality Program) and Lake Liaison Bill Hemphill, surveyed the aquatic plants in **Prairie Lake**.

There was extremely good plant diversity in Prairie Lake! We observed 9 species of submersed aquatic vegetation (SAV); 8 of which were native. This is a very important factor in the health and quality of your lake as these plants help to absorb excess nutrients and create vital habitat for the ecosystem.

The native SAV consisted of: road grass to 2 feet, coontail to a depth 2 feet, southern naiad to 4 feet, the macro-algae stonewort to 10 feet, pondweed to 12 feet, 2 bladderwort species (*Utricularia gibba* and *inflata*) to 15 feet, and eelgrass to 13 feet. Hydrilla was sporadically intermixed with the eelgrass to a depth of 18 feet in only a few areas. There was a decreased abundance of hydrilla compared to previous inspections.

The grass carp stocking, coupled with competition from the native SAV, active spot treatment (with herbicides), and frequent monitoring (by your liaison) has helped reduce the amount of hydrilla present in Prairie Lake, thus keeping hydrilla management costs low and successful. Keep up this excellent work!

It is recommended that monocultures of hydrilla continue to be spot treated with herbicides in the areas identified during this inspection: within the cove, entry of cove to Prairie Lake, by VFW, entry canal to Pearl Lake, and near outfall from Lake Maltbie. The addition of grass carp fish is not recommended at this time for Prairie Lake.

Photo: Example of hydrilla found intermixed within native SAV.



Photo: Native bladderwort.



Invasive torpedo grass continues to be the dominant emergent aquatic; it was present along most shorelines. Other invasive species in Prairie Lake included: cattail, primrose, and Carolina willow. Cuban burhead sedge was also observed and is increasing along the west and east shoreline of Prairie Lake; this should be managed. Please note that management of aquatic and wetland 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: Invasive Cuban burhead sedge found along the west shoreline.



Many of the previously planted restoration sites are performing well! This can be viewed in the photo below that demonstrates a healthy vegetation zone of maidencane grass, pickerelweed, and duck potato. It is recommended to hand-pull the young cattails that have recently established within this area, as cattails are invasive and can take over the planted area.

Photo: Restoration location that is well established in Prairie Lake.



The secchi reading (measurement for water clarity) during this inspection was 10.3 feet in 18.2 feet of water. Four grass carp fish were observed during inspection; several within in the cove off Robin Road.

Pearl Lake

On **October 28th, 2014**, Seminole County Lake Management Program personnel (Thomas Calhoun and Gloria Eby), with Marianne Pluchino (Seminole County Water Quality Program) and Lake Liaison Bill Hemphill, surveyed the aquatic plants in **Prairie Lake**.

Four native SAV species and one invasive exotic SAV species were observed during the inspection. The native SAV observed were: southern naiad to a depth of 2 feet, eelgrass to 2 feet, and two types of bladderwort found to 11 feet. Bladderwort is currently the dominant SAV species in Pearl Lake. In prior inspections, stonewort was the dominant species; however, it was not observed during this inspection. No SAV was present beyond 11 feet.

All of the observed native SAV species were abundant to desirable depths, healthy, and providing good competition to hydrilla (within the depth range of hydrilla). Hydrilla was also present from shallow water to 3 feet deep, and was reduced in abundance compared to the previous inspections. The grass carp stocking, coupled with competition from the native SAV and active spot treatment (with herbicides), has helped reduce the amount of hydrilla present in Pearl Lake, thus keeping hydrilla management costs low. The addition of grass carp fish is not recommended at this time for Pearl Lake.

Secchi reading during inspection was 12 feet in 16.1 feet of water. Three grass carp fish were observed during the inspection.

Photo: Bladderwort found during inspection to a water depth of 11 feet.



Photo: Hydrilla sprig found during inspection to a water depth of 3 feet.



Lake Recommendations:

1. Continue to work together with other lakefront owners to control (and if possible, eliminate) the invasive plants observed during this survey and increase native aquatic plantings along the shoreline (such as pickerelweed and duck potato). Have at least one annual lake association meeting to discuss lake-specific issues.
2. Utilize the valuable educational outreach programs that are available, i.e. Shoreline Restoration Workshops, Florida Yards and Neighborhoods (FYN) interactive presentations, and Lake Management Video mail-outs. Implement a media campaign within the community to reduce personal pollution by: decreasing overall fertilizer usage, using only phosphorous-free and slow-release nitrogen fertilizers, keeping a functional shoreline with beneficial native aquatic plants, and keeping grass clippings out of your lake and the storm drains that lead to the lakes. 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.

3. These recommendations could be managed by Seminole County by establishing an MSBU, Municipal Service Benefit Unit, for aquatic weed control/enhancement. For additional information contact Carol Watral at (407) 665-7164 or cwatral@seminolecountyfl.gov or <http://www.seminolecountyfl.gov/fs/msbu/>.
4. Control of aquatic and wetland plants could require a Florida Fish and Wildlife Conservation Commission (FWC) aquatic plant control permit (such as the Cuban burhead sedge). Contact Alicia Knecht at (321) 246-0682 or Alicia.knecht@myfwc.com for a free permit and recommendations.
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.