Greetings Buttonwood Residents,

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

- Sample restoration site
- Submersed aquatic vegetation (SAV)
- Native emergent vegetation
- Exotic emergent vegetation
- Leaf fall
- Recommendations for you and your waterbody

3/8/2016

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

At time of inspection the water level was very low.

Photo: Restoration site.

In the restoration zone, the pickerelweed and duck potato have died due to the low water level. These species will be replanted lower on the shoreline.

Submersed aquatic vegetation (SAV) observed during the inspection included: red ludwigia, roadgrass, and baby's tears. All species were found in shallow water.

Photo: Submersed Red Ludwigia.

Native emergent vegetation found during the survey included: spikerush, soft rush, pickerelweed, duck potato, fire flag, and cordgrass.

Invasive emergent vegetation included: alligator weed, and torpedo grass. The amount of torpedo grass was less than in the previous inspection.

A surface algae bloom was observed on the North side of the pond. Similar algae blooms have been noted in past inspections. To reduce the frequency of algae blooms, don't fertilize yards within 25ft of the shoreline and only use phosphorus-free fertilizers. This will help prevent the excess nutrient runoff that has been feeding the algae.

The water elevation at the time of inspection was 31.35 feet above sea level. This was an increase from the water elevation in the previous inspection of 31.16 ft.

4/12/2016

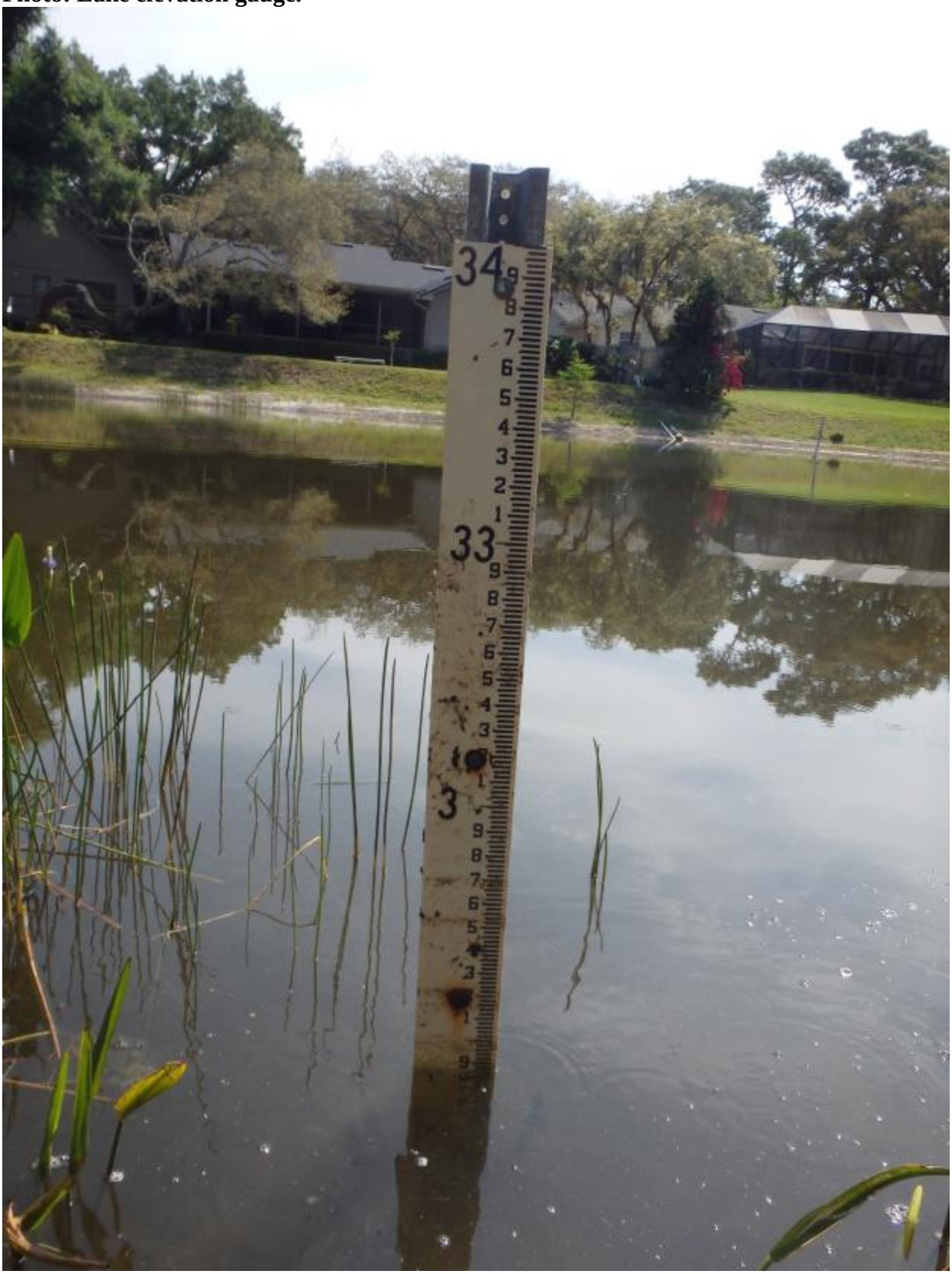
On **April 12th, 2016**, SCLMP personnel, Thomas Calhoun and Marie Lackey, surveyed the aquatic plants in **Buttonwood Pond.**

The restoration zone was replanted in early April with duck potato, pickerelweed, soft rush, canna, and cord grass. The goal of this replanting was to identify which species will establish best in Buttonwood Pond.

Photo: Restoration site.

Submersed aquatic vegetation (SAV) observed during the inspection included: roadgrass and baby's tears. All species were found in shallow water.

Photo: Lake elevation gauge.



Native emergent vegetation found during the survey included: spikerush, soft rush, pickerelweed, duck potato, fire flag, canna and cordgrass.

Invasive emergent vegetation included: alligator weed, and torpedo grass. The amount of torpedo grass was less than in the previous inspection.

The water elevation at the time of inspection was 30.88 feet above sea level.

Leaf debris contains high levels of phosphorous that can negatively impact your waterbody. Consider increasing street sweeping services during times of peak leaf fall to ensure that this debris does not enter waterways.

Photo: Leaves in stormdrain.

6/20/2016

On **June 20th, 2016**, SCLMP personnel, Thomas Calhoun, and MSBU Project Coordinator, Joe Saucer, surveyed the aquatic plants in **Buttonwood Pond.**

In the restoration zone, pickerelweed and fire flag had established very well. Establishing emergent shoreline vegetation is beneficial to the pond by providing a buffer from yard runoff, protecting shorelines from erosion, and providing habitat for aquatic species.

Photo: Pickerelweed at the restoration site.

Submersed aquatic vegetation (SAV) observed during the inspection included: red ludwigia, roadgrass, southern naiad and baby's tears. All species were found in shallow water. This was the first noted presence of southern naiad in several inspections.

Native emergent vegetation found during the survey included: spikerush, soft rush, pickerelweed, duck potato, fire flag, and cordgrass. All native vegetation was found to be very healthy. Spike rush had expanded since the previous survey.

Photo: Native spike rush.

Invasive emergent vegetation included: alligator weed, and torpedo grass. The amount of torpedo grass was less than in the previous inspection.

Photo: Invasive torpedo grass.

A surface algae bloom was present in shallow areas of the pond. Similar algae blooms had been noted in past inspections. To reduce the frequency of algae blooms, don't fertilize yards within 25ft of the shoreline and only use phosphorus-free fertilizers. This will help prevent the excess nutrient runoff that has been feeding the algae.

The water elevation at the time of inspection was 31.25 feet above sea level.

Recommendations for your waterbody:

1 Work together with other waterfront property owners. Have *at least* one annual waterbody association meeting, invite guest speakers (such as county or state biologists), and discuss waterbody specific issues, especially nutrients/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 waterbody.

3 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 and slow release nitrogen types of fertilizers, keeping a functional shoreline with beneficial native aquatic plants, and by keeping grass clippings out of your waterbody and the stormdrains that lead to the waterway. All of these activities aid in protecting your pond! 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.