



3167 St. Johns Bluff Rd. S., Ste. 204, Jacksonville, FL 32246

Fax: 904-807-9158

Phone: 904-997-0044

Toll Free: 866-990-0044

Service Report

Date: April 3, 2007

Biologist: Doug Charles

Client: Lake Asbury Municipal Service

Contact: Mr. Larry Pitts

Waterways: North and South Lake Asbury

Comments:

North Lake Asbury

The algae bloom has become much more intense primarily in the eastern coves. There are several causes to the current algae bloom; however, excess nutrients in the water column are the primary cause. The excess nutrients come from fertilizer run-off, from failing septic tanks around the lake and potentially from nutrients stirred up from the dredging last year. Other factors involved in the algae bloom are lack of rainfall, lack of storm water retention ponds in the water shed, warm weather and very clear water that allows sunlight to easily penetrate the water column.

My recommendations to curb the influx of nutrients into your lakes and to determine their source are as follows:

- 1) Inspect every Septic System around both lakes, especially systems over 5 years old.
- 2) Initiate water testing for both lakes, testing Fecal Coli-form, Total Phosphates, Ortho Phosphates and Chlorophyll A (if water tests are

- not already being done). If the Fecal Coli-form levels are high, this will indicate septic system failures.
- 3) Limit the application of fertilizers in the entire water shed of both lakes.
 - 4) Further educate all residents inside the water shed regarding the current problem with excess nutrients in the lakes.
 - 5) Contact the University of Florida Aquatic Plant Department for more information regarding the history of the lake and recommendations.

With the authorization of the Lake Asbury Municipal Service board, I will be able to conduct the water testing and contact UF.

The hydrilla has also bloomed in many areas of the North Lake. I recommend conducting a partial Aquathol K treatment much like the one I did in Sept. of 2006 when I applied 95 gallons of Aquathol in the problem areas. I believe this treatment will knock back the hydrilla to a point where the grass carp will better be able to keep up with the hydrilla growth. I did observe over 75 grass carp primarily in the eastern coves of the lake.

I inspected the control structures and the fish barriers were intact and there was no discharge of water out of the lake.

Notes: The good news is the water clarity is excellent and the aquatic life is thriving in the North Lake. The bad news is we are having problems related to excess nutrients getting into the lake. I believe if we can determine the source of the nutrients we will be able to better understand and potentially limit the influx of nutrients.

South Lake Asbury

The bladderwort and the water lilies in the southern tip of the lake continue to be a problem so I more aggressively treated them. The bladderwort and lilies are native and beneficial; however, they have become excessive especially in the shallow areas of the South Lake. I will continue to treat these plants as necessary.

There is a relatively minor algae bloom in the eastern side of the main body of the South Lake. It is no where near as intense as the North Lake; however, it could intensify.

Email with questions or comments.

Doug Charles