August 2010 Lake Committee Report

Secchi readings were taken on July 27th. The results were mailed and data was entered at the VLMP website. The previous week Grayslake had received a total of 4.57 inches of rain. Site # 2, located on the east end of the lake, had a secchi depth of 119". Site # 1, by the raft, had a secchi depth of 105" , site 3, at the west end of the lake was 68" and the secchi disk was visible on the bottom and site # 4 , out in front of the inlet, had a secchi depth of 73".
Considering the previous amount of rainfall the secchi readings were good. There was a noticeable amount of sediment on the plants in the lake. I feel this is this is more than likely why the water clarity was as good as it was.

Secchi readings were again taken on August 11th. There had been .58" in the previous 48 hrs. Site #1 had a secchi depth of 120", Site # 2 - 116", Site # 3 - 72", and Site #4 - 79". Hard copies have been mailed and it has also been entered online at the VLMP database. I have emailed some charts that are available to me from the VLMP website to Ron J. to post on the website. The charts show secchi data based on different time periods and also how we compare to other lakes currently submitting VLMP data.

I recently put together a presentation for the community website that shows the plants growing in our lake that were listed in the 2009 lake report. It is comprised of slides that include pictures and a brief description of the plants. In the presentation I have also included Eurasian Water milfoil. I am hoping that people will take 10-15 minutes to look at this so they can learn about the plants that we have growing in the lake. It should also help people identify the plants. Ron should have this posted on the website .

I am also in the process of "mapping" the plants in our lake. I am recording the species of the plant and also it's location with GPS coordinates. I am doing his for the following reasons:
1. To know quantity of invasive or exotic plants growing.
2. To know the species of invasive or exotic plants
3. To know the locations of these species
4. To know what other ***native species*** are growing there as well, in order to help determine the best management options, and if it is necessary at that time.

This should give us additional insight in deciding what type of plant management actions will be necessary in the future and when to do it. It is important to understand that management actions aimed at decreasing plants on a "large-scale" , such as whole lake treatments, can lead to increased nutrients available for algae and bacteria. Decaying plant material will also release additional nutrients, much like compost, that algae and bacteria may use for growth. Large-scale die-offs of vegetation may result in "blooms" of algae and cyanobacteria with the potential to cause fish kills, odors, and toxins. Large-scale decreases in plants also result in a significant alteration in habitat for invertebrates and fish. A lack of "nearshore" aquatic plants can lead to faster erosion from wave action along certain shorelines. There are times however, that "whole lake treatments" are the best option from a management perspective. But occurrences of

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the type mentioned previously need to be avoided in the future through continued lake monitoring and careful planning.

Currently, there are thick stands of Sago pondweed growing in the 2'- 5' depth range. This is not surprising due to the fact that Sago pondweed is a native macrophyte that has a high tolerance to flouridone. It It is interspersed with Slender naiad growing at the lower depths along with Chara. The Sago is easily identified by it's very thin leaves and their shape ,which resemble pine needles. The leaves range from 3-10 cm long and end in a sharp point. The flowers and fruit are also present, they float in or on the water on a slender stalk anywhere from 3-10 cm long and somewhat resembles a string of beads. At shallow depths Sage will behave like an annual because it's sensitive to frost. It is also one of the top food producers for waterfowl, especially "dabbling" ducks such as mallards along with blue and green winged teal.

Long Leaf pondweed is starting to grow at the northwest corner, west shore, and East shore of the lake. There is also a fair amount of Coontail along with Sago pondweed in the inlet. The Coontail has formed a "mat" at the back of the inlet. Coontail thrives in nutrient rich water, it loves phosphorus, so it is not surprising to see it flourishing in the inlet. Coontail is not actually a "rooted" plant. I have also noticed small strands of small pondweed growing with the Slender naiad off of my pier.

It was brought to my attention that one of our residents had confirmed as "absolute", sightings of Euarsian water milfoil growing along the East, South, and West shore. They had taken samples and placed them in ziplock bags. One bag was labeled immature, the other mature. I was glad that they took the samples, that was a good idea. The bag labeled "immature" contained Chara, the bag labeled "mature" contained Sago pondweed. However, neither of these two plants bear any resemblance to Eurasian Water Milfoil. After seeing the samples I still thought it would be prudent to go to the areas specifically mentioned to look for Eurasian Water Milfoil. At this time could see none growing. I did however see a small cluster of Curlyleaf pondweed, which is an exotic, growing by the inlet .

The incident I just described concerned me from the perspective that there is in all likelihood, a large part of our community that can not properly identify Eurasian water milfoil. It is imperative that the people out on the water know what this plant (EWM) looks like, especially with the addition of electric motors to our lake. Eurasian water milfoil is primarily spread by/through fragmentation, it does bear seeds but the majority of it's proliferation is caused by it's fragmentation. This is most often caused by boat motors and wave action. If it is located it needs to be marked immediately, so boat motor propellors do not pass through it fragmenting it and causing it to spread. Appropriate management options can then be considered and action taken if deemed necessary. As of this time I have not seen it growing anywhere, but in all likelihood we will see it again do to it's aggressive nature and it's ability to grow pretty much anywhere.

On August 7th I attended workshop on Aquatic Plant Identification. It was an informative workshop lasting approximately 6.5 hrs. A 4 1/2 hrs. in the classroom, 2

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hours in the field. There was a Power Point lecture given by Laura Sass who is an Aquatic Ecologist from the University of Illinois. It covered exotic species, shoreline plants, emergent plants, floating plants, and submersed plants. They had live samples of almost all the various plants one would encounter growing in and around our lakes here in Lake County on display. They were arranged in the room so you could look closely at them and handle them. After 3 hrs. of presentation we were then shuttled out to Butler Lake broken into teams and given ziplock “mystery bags” . The bags contained 10 different local species that the teams had to identify. We were then shown the tools and techniques that are used to collect and sample plants from deeper water. After this we went back to the classroom and were shown the process of how to create our own pressed plant samples. I’m hoping in the near future I would like to be able to provide the shore reps with pressed samples of Eurasian Water Milfoil and Curlyleaf pondweed. This way if a resident thinks he or she sees either of these two exotics growing in the lake it will make the confirmation of the species easier by comparing samples.

A staff gauge has been ordered that will be permanently attached at the outlet in order to ascertain lake water levels while performing lake monitoring and other management actions. This is follow-up to one of the recommendations in the 2009 report. We have also discussed posting signs regarding EWM, along with a message on the importance of not emptying bait buckets and unused bait, and the water from the bait bucket into the lake. This is another common pathway for the spread of invasive exotics, including Zebra mussels. These signs would be posted at the parks along with park rules.

I also discussed with Larry the idea of attaching a short survey/questionnaire regarding the lake and it’s usage and health to the annual dues form. We , the Lake Committee, had tried this previously but the response was poor. By attaching it to the annual dues notice we hope to increase participation and receive more information. This survey will be very similar to what was previously put together by the Lake Committee.

Sincerely,
Mike Kalstrup