



Loch Lomond 2018 Season Ending Report

This report will detail some of the things which were observed during service visits, the treatments which were applied, and some information regarding possible uncontrollable factors which impact the behavior of your lake. After a general summary of the season we will give our best recommendations for next 2019 as well as list a few other possible options which we can look at which may be beneficial towards the aquatic ecosystem in place.

Submerged vegetation growth this year started off with sporadic curlyleaf pondweed growth throughout the lake along with some lily pads near the boat launch and some minimal horned/sago pondweeds. The curlyleaf was the main target for submerged weed treatments in the year with the idea that we knock back chunks of curlyleaf before seeds were dropped but leave immature plants for fish and other aquatic organisms. After the first big Diquat treatment we began to see some native weed growth, mainly consisting of Coontail, American pondweed, a bit of spread in Lily Pad growth. We had to be careful with our treatments so we would not impact the native species as well as the testing sites. This took a lot of inspection and thoughtful planning on our end.

The transition from the spring months into the summer months showed a general decrease in the total amount of Curlyleaf and rise in native submerged growth. With the warmer weather also came planktonic algae which could grow in any places throughout the lake, and also particularly in a few key areas. The South Beach and boat launch, The outflow channel on the western side of the lake (also a heavy curlyleaf growth area), the North shore and the tip of the North Bay, and the new inflow just east of the boat launch. This is a trend we have seen for a number of years on Loch Lomond.

Treatment wise there were two main goals for the lake; First, was the Diquat treatments targeting curlyleaf pondweed to be applied to dense patches of growth before the plants reached full maturity. Second, was to combat algae growth, particularly planktonic algae with a focus on the beach and recreation areas. We performed two large scale Diquat applications early in the season to knock out all of the excessive Curlyleaf Pondweed present; per discussions with Tony we held off on the 3rd Diquat treatment to avoid harming the native submerged weed growth that was coming in. We saved that treatment for spot treatments. A few small clean up submerged weed spot treatments were performed occasionally to clear up some of the growth that was beginning to form dense patches. Algae treatments were



performed as needed with a focus on hitting the beach area hard as well as to target other extensive patches of planktonic algae while trying to keep from using excessive chemical doses in order to promote as natural of an aquatic ecosystem as possible.

The weather patterns this year were not in favor of aquatic management companies in our region. We had the wettest May on record (since 1871) 6th wettest June and the 7th driest July since we have been keeping track. The Chicagoland area also experienced 20+ 90, degree temperatures this summer. Aside from a few rough planktonic blooms I believe Loch Lomond fared pretty well with the conditions present; the lack of rain through the summer also means there was not an excessive amount of flush in from the inflows or from resident's yards.

Looking at the 2019 season I would recommend sticking with a similar plan that was used during this season with just a few minor tweaks. The only major change would be to switch from utilizing Diquat which burns any type of vegetation it comes in contact with and next year use Aquathol which is an aquatic herbicide that has no irrigation restrictions to worry about, and it can be used at specific dosage rates which knock out invasives such as Curlyleaf or Milfoil, while leaving the native vegetation relatively unharmed. Sonar (Fluridone) is also another possible option which tends to be much more effective on invasive species as it kills the entire plant through to the roots. Sonar however has a 30-day irrigation restriction and generally takes a bit longer to reach full effect as the chemical must travel through the entire plant. The reason we like to recommend Sonar is that we can take care of the invasive weed species before they come to grow. This lessens the amount of herbicide treatments being performed on the lake all together. Sonar will allow more of the natives to thrive. By looking into either Aquathol or Sonar, we can target invasive vegetation more thoroughly without having to worry about taking out any native plants, whereas Diquat will burn any vegetation it comes in contact with.

There are a couple of service options I would like you to consider which were not present on last years contract (A few of which I think you already are) but that I believe will really help push Loch Lomond in the right direction for longevity in the health of the lake. The first would be probiotic bacteria from our water enhancement program, which act like a multivitamin for the water. The bacteria that are applied are already naturally occurring within the aquatic ecosystem, however the bacteria are conditioned to operate towards specific tasks. These bacteria promote water clarity and overall quality, providing a bit of nutrient control with some of the excessive nutrients in the water column, and they are helpful in the recovery of a waterbody after chemical treatment or significant natural events. Basically it balances out the



water column. There is also a bio-dredge program which utilizes bacteria which break down soft mucky sediments which are nutrient rich over time. This is a much cheaper alternative to dredging; however, the process is much slower only netting 2-12 inches of muck reduction in application areas over a year in the right environments. The bacteria options help with nutrient management. Nutrients impact the water column far more than people realize. High nutrients essentially lead to growth of vegetation.

It may also be helpful to consider performing water and sediment tests at varying locations throughout the lake as it can help us pinpoint specific issues that may need to be addressed or better alternative options in finding solutions. We truly value the data from these water quality analysis, as it helps us to develop a lake management plan that is suited to your water body.

There are other things such as native plantings, floating islands, and aeration which all can provide benefits for the aquatic ecosystem, and a few of these things I believe the association has been discussing as well. We have to be careful when deciding on a direction with our treatments with some of the plantings/floating islands, as we do not want to run the potential at eliminating your investments. We are also doing some homework through this off season and working with our affiliates to see which kind of treatment options will best promote a natural and native ecosystem and which will work well with any kind of native plantings or floating islands if those are something happens down the road.

We will be happy to provide any information or other assistance we can. If you would like us to come to a board or associating meeting to discuss things in person or to perform any kind of surveys please let us know!

Thank you for being such a great customer to the McCloud Aquatics team. We were thrilled to provide you with aquatic management for the 2018 season.

We are looking forward to the 2019 season!!

Thank you!!

Josh Rogers