# Aquatic Solutions, LLC <br> Mark McElroy <br> November 28, 2023 <br> Lake Ramsey / 2023 Aquatic Weed Assessment 

Dimy, my assessment of the Lake Ramsey aquatic weeds was conducted recently by boat. In addition, mapping provided by Kirk was helpful. A recap of my assessment previously provided in recent correspondences with you and Kirk are mentioned below.

It was obvious that carp and water fowl are having an impact on plants as evidenced by pulled plants with roots found floating in plant mats. Carp, as carp will do are increasing in size when provided with ample food. The grass assemblage was primarily Southern naiad last year and now hydrilla appears to have become established, as well. Carp will readily consume both species. The maps indicate that plants have retreated from areas where naiad was previously found in 2022 and this was observed on my recent visit. Most shallow areas (< 6 feet) still show plants remain established.

Neither comment to either increase the stocking of grass carp or decrease carp are warranted, at this time. It has always been the narrative (at least from me) that managing established submerged vegetation with carp is not an instantaneous method for control and patience is required. Yes, the plants do seem to have retreated however this is one year. The weather this past summer was epic and it would be risky at best to conclude that the carp were the only thing at play. What we should be looking for is a trend and one year does not make a trend.

I would also caution those that want to calculate carp foraging capacity with reports or articles they've read. It doesn't work like that and drawing conclusions for your lake based on what happened in another water body is foolish. Managing aquatic weeds with carp is done by trial and error if we're not trying the nuke the plants which is why I recommended to understock. It may be that we need to increase the number of carp to get to a happy place of say $20 \%$ coverage. Don't know yet.

In conclusion, I would leave the carp numbers at the current rate and assess things this time next year. Hopefully we'll have a normal weather pattern, but more importantly we'll have 2 years of data and a clearer picture of what we can expect with the current stocking rate. On the political front, I am aware that some folks are not happy with where we are right now with the grass coverage. So, reducing the carp numbers doesn't make any sense on that front. On the other side of things, whether it's all the carp or a combination of circumstances (high temperatures, drought, phytoplankton bloom, etc) there is a decrease in plant coverage. Politically, you might attribute the decrease in plants entirely to the carp, but biologically that might not be completely accurate. I advise caution in your optimism. We may be in a place next year at this time where the plant's establishment has increased, or stayed relatively the same. But, that's the nature of playing with plant management with carp.

Patience and stay the course. Don't alter the carp numbers.
Mark McElroy
Fresh Water Fisheries Biologist
Aquatic Solutions, LLC

