

Hello Barbara, Mike, and Gary,

On Monday and Tuesday, Brenton Butterfield and Lianna Spencer, out of Madison office, completed the Late-Season AIS Survey on the Waterford Waterway. We have worked the last two days to get the map and report together, both of which are contained in the attached document. If resources allow, you may want to print this off for folks at the annual meeting. Also, feel free to post the PDF on the district website.

I know there is the potential for a lot of questions about a lot of subjects at the annual meeting, so I just wanted to touch on a few subjects that I have discussed with you three over the past several months. If you have questions, I will check my email later tonight and early tomorrow morning. I will do my best to respond.

Winter Drawdown – The intent of the winter drawdown, as stated in the permit application, is for Eurasian watermilfoil (EWM) control. In my opinion, based upon the information collected by our crew this week, there is not enough EWM in the system to warrant a drawdown. Yes, EWM occurs throughout the littoral zone of the lake, but the bulk of the area is scattered or highly scattered occurrences (96%). As Brenton mentions in the report, these areas are not causing a nuisance to recreation or impacting the ecology of the lake. The approximate 25 acres of *dominate*, *highly dominate*, and *surface matting* EWM are good areas for herbicide treatment next spring, which will be part of our discussion early this winter.

The other common plants in the waterway, coontail and common waterweed have shown highly variable responses to drawdown in Wisconsin and other temperate areas. In two drawdowns that we monitored, coontail did decrease, but common waterweed remained the same. If the goals for the drawdown include sediment compaction, then we would have better luck including some of the summer months as that would produce the best results.

With the incredible amount of rain that we have received this year, it is difficult to really trust any data collected this growing season, so any final judgements on including a drawdown in the management plan should be held until the management planning studies are complete and the planning process has been given a chance to progress a bit.

Mechanical Harvesting – Based upon the fact that the majority of nuisance areas, whether they are brought on by natives (coontail and common waterweed primarily) or EWM, are in 3-foot or less of water, I do not believe that mechanical harvesting would be effective. All of the experienced mechanical harvesting contractors that we have worked with will not cut in waters less than 4 feet deep and physically cannot realistically cut in 3 feet. Again, this can be reassessed once our surveys are completed next year.

Waterford Lake – I know that the lake has once again seen some high rates of blue-green algae and in an email received from Paul Kling regarding the most recent bloom, he asks, “Inclusion in lake management plan???” In late July and early August, Gary, Heather, and I had an exchange of emails and a phone discussion regarding Waterford Lake and studies that we would like to include in the management planning project. In one of the emails I sent Gary, I wrote:

Our typical procedure is to collect sufficient information to truly understand the problem, determine possible solutions, select a solution, implement the solution, then monitor the system again to see if the solution met the management goal. While the information being collected this year [2017] may be part of a good monitoring plan to support a Phoslock treatment on Waterford Lake, we do not believe it is enough. Basically, the results will say that the lake has high phosphorus and algae blooms. That will be a surprise to no one and not sufficiently support the use of the product. To bring about a better understanding of Waterford Lake, we suggest also collecting sediment cores for phosphorus fractionation. In other words, analyze the sediment cores to determine how much phosphorus is available for internal loading within the lake and use that to help determine a Phoslock (or alum) dose. The cores would be in addition to similar chemistry collections as being conducted this year.

Onterra would collect the sediment cores and they would be analyzed by a colleague at UW-Stout. I provided an estimate of our work associated with the collection, analysis, and reporting of the sediment cores, at \$10,500 and the phosphorus fractionation and release analysis by UW-Stout at \$3,500. To my knowledge, I have not received a confirmation to include the work, but based upon my conversations with Gary, I have assumed that we would be completing the work in 2018 and that I should include it in the grant.

Thank you and good luck at tomorrow’s meeting,

Tim

Tim Hoyman, CLM

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