

August 15, 2014

## Final Report Grant AIRR-086-10

### Hartlaub Lake Manitowoc County Eurasian Milfoil

#### Executive Summary

Eurasian Water Milfoil [EWM] was discovered in Hartlaub Lake in 2009. The Hartlaub Lake Association requested and received a 3 year rapid response grant to treat the milfoil. After two years of unsuccessful treatment, the milfoil was identified as a hybrid [HWM]. Contractors and chemical companies did not have a guaranteed method to eliminate / substantially reduce the HWM. Consequently the Hartlaub Lake Association delayed and finally cancelled treatment plans. The Association is requesting the DNR to close this grant. The Hartlaub Lake Association will not submit any additional compensation requests. A full and final report is detailed below.

#### Detail

Eurasian Milfoil [EWM] was discovered in Hartlaub Lake in the summer of 2009. The Hartlaub Lake Association requested and was given a "Rapid Response" grant from the DNR for a three year treatment.

Background – Excerpt from initial documents is below in blue:

**In 2009, EWM was discovered in Hartlaub Lake by a trained Lake Association AIS monitor. Samples were sent to the state lab and confirmed as EWM. The monitor believes the EWM is located in a small portion of the lake [less than 5 acres]. We know that we need a professional contractor to access the EWM population, take appropriate action under the guidance of the Wisconsin DNR and follow-up with a maintenance program. The Hartlaub Lake Association is currently getting guidance from AIS specialist Tom Ward.**

The Hartlaub Lake Association filed all necessary paperwork to receive the grant to include: General Background Letter stating the situation, Grant Application Forms, Association By-laws, Resolution for action, Project cost breakdown to include the number of anticipated volunteer hours, Letter showing that the Association was qualified, Project timeline and details, Board of Directors, EIN number, Bank Account information, List of association members, Location of the public access.

Bonestroo was selected as the initial contractor to both identify the area of the lake that was infected with EWM and also perform the treatment. Four contractors were initially considered and the Hartlaub Lake Association chose the lowest cost contractor, Bonestroo.

Bonestroo assessed the Hartlaub Lake with a point/intercept and concluded the amount of area infected with EWM was less than 5 acres. The next image shows the areas of concern



**2010 AIS PRE TREATMENT SURVEY**

**HARTLAUB LAKE DISTRICT**

Treatment was completed on May 19<sup>th</sup> 2010 using a 2/4/D liquid with a dose of slightly more than 8.5

gallons per acre. Prior to the treatment, a public notice was printed in the local newspaper, landowners around the lake were notified, and permit fees were submitted.

### 2010 Treatment Results

Initially the treatment appeared to be effective. EWM died leaving room for native vegetation. However in late July and into August, the EWM reappeared with renewed vigor. A complete Plant Index was taken on July 26<sup>th</sup> 2010. Again, there was continued presence of EWM. This was concerning especially since the EWM was now growing outside of the initial targeted areas.

<i>Myriophyllum spicatum</i> , Eurasian water milfoil	filamentous algae	Ceratophyllum demersum, Coontail	Chara, Muskgrasses	Myriophyllum sibiricum, Northern water milfoil	Nuphar variegata, Spatterdock	Nymphaea odorata, White water lily	Schoenoplectus acutus, Hardstem bulrush	Stuckenia pectinata, Sagopondweed		
12.16	14.86	86.49	22.97	2.70	6.76	22.97	1.35	5.41		
9.09	11.11	64.65	17.17	2.02	5.05	17.17	1.01	4.04		
6.9	8.5	49.2	13.1	1.5	3.8	13.1	0.8	3.1		
	0.01	0.24	0.02	0.00	0.00	0.02	0.00	0.00		
9	11	64	17	2	5	17	1	4		
1	1	1	1	1	1	1	1	1		
present	present	present	present	present	present	present	present	present		

Of interest was English Lake, located only 4 miles distant, was experiencing exactly treatment same results.

Bonestroo was contacted and advised of the less than acceptable results. The Association asked for a revised protocol to improve results. Bonestroo offered a variety of reasons for the poor results to include: High pH water, chemical sinking down into the thermocline, and treating too early in the season. Their response is shown in blue below:

**“ Thanks for the comments we always strive to treat at the optimum times for maximum efficacy, but there are other factors that you need to consider your application is limited by water as normally indicated on the WDNR permit, typically 60 degrees for CLP and 65 for EWM, those are reasonable. Once CLP forms turions treating it is futile, hence the DNR rationale for that specie, which usually happens around the mid 60 degree temperature range or so. With EWM their concern is potential impact to natives, I don't think in your case that is a major concern given the small treatment area, but none the less they are the regulatory agency, and treating as late as possible (water temp dependent) is fine, you can call when we are close to the 65 degree mark.”**

### **Second treatment May 27, 2011**

The Association authorized the second year of treatment. Treatment was applied eight days later as compared to 2010. The treatment results were quite similar to 2010. Initially the EWM died but it soon rejuvenated. In August 23, 2011 a volunteer surveyed the lake for EWM and logged 45 locations into a GPS. The area had now grown to 10.3 acres. The information was forwarded to Bonestroo. Bonestroo questioned the information and suggested the volunteer did not know the difference between EWM and coontail. The contractor's flippant response lead the Association to a new contractor.

### **Alternate Contractor**

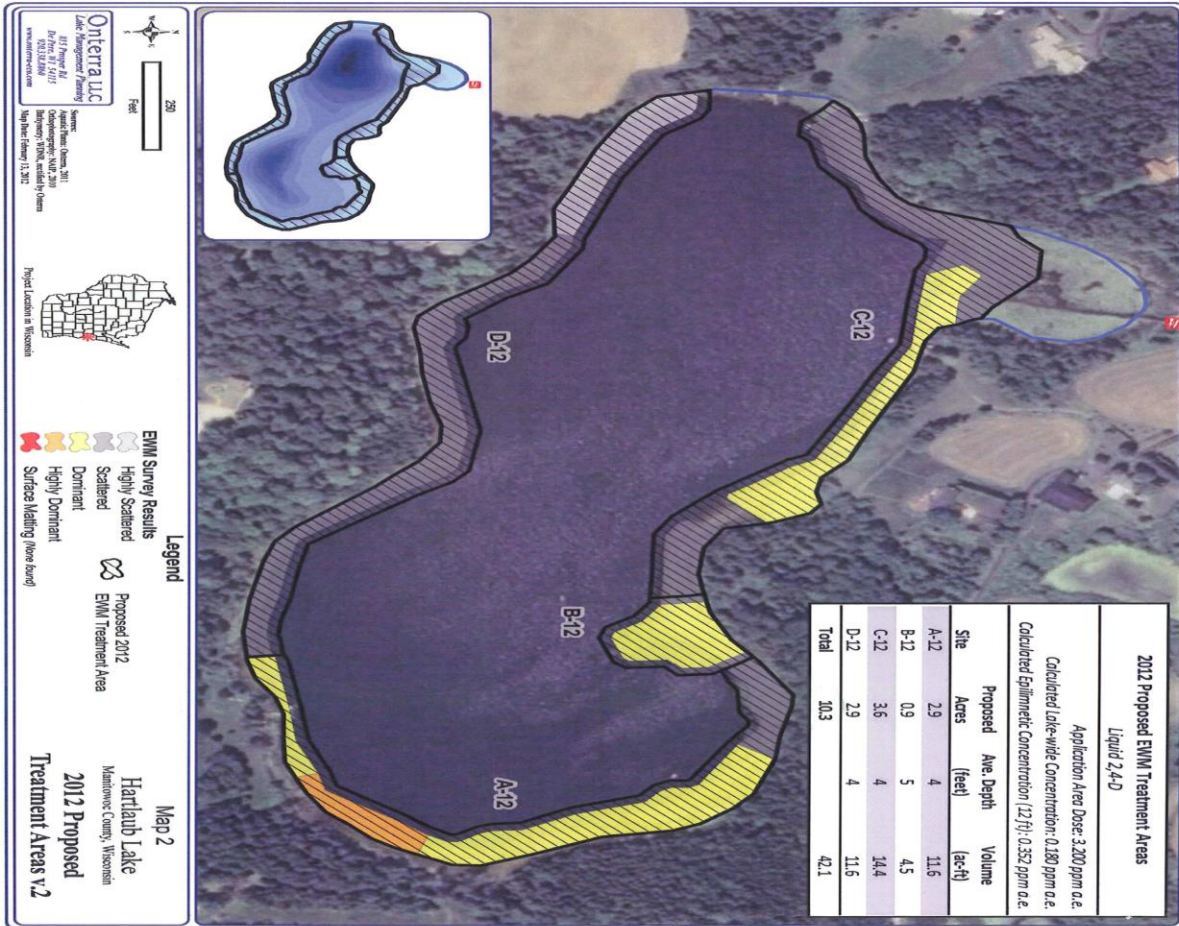
Sept 2011, Hartlaub Lake Association contracted with Onterra to get an alternative opinion.

### **Hybrid Milfoil HWM**

Onterra sampled the “EWM” on September 8, 2011. Onterra suggested it might be the same Milfoil found in English Lake....a **Hybrid**. Samples were taken and sent to Michigan for verification. In late October 2011 we were advised Hartlaub Lake did indeed have a hybrid, one that could not be killed in the method normally used for EWM. All of our efforts, time and money, were wasted. It should be noted that a sample was sent to the State of Wisconsin in 2009 and identified as EWM [not HWM].

### **2012**

As Bonestroo made plans for a 2012 treatment, the affected area was over 10 acres, twice the size compared to when treatments initiated. See map below....



## Project Delay and Final Abandonment

April 2012 brought more troubling news. Both Onterra and Bonestroo stated the companies that manufacture the treatment chemicals did not have an approved mixture that would kill our variation of HWM. Rather than spend additional State money, the Association put the project in a delay mode. There was no reason to waste resources. An excerpt of a communication to the Association membership is below:

**Our treatment contractor just informed us that the Hybrid Eurasian Water Milfoil found in Hartlaub Lake has been proven to be very resistant to chemical treatment. The contractor says no known chemical is truly effective.**

**You probably remember that we sent a sample for DNA testing after the poor treatment results in 2011. English Lake and potentially Silver Lake have the same strain.**

As you know, Hartlaub Lake only has one year left on our grant. We have to make this final treatment as successful as possible.

We are suggesting the 2012 treatment is delayed at least to 2013. There is no reason to use our final funding on a chemical that has minimal

English Lake has decided to attempt treatment with the standard 2/4/D but in a much higher dose than normally recommended. Even with the aggressive dose, it is likely their treatment will not be successful.

We are suggesting that we watch the English Lake results. If they are successful, then it is something that we can consider in 2013.

### **Current Status**

After three years of non-activity, Hartlaub Lake Association has decided to formally end the treatment program.

### **Financial Status**

The Hartlaub Lake Association does not have any additional bills and will not submit any additional compensation requests to the DNR.

### **Please consider our grant closed.**

Thank-you goes to Mary Gansberg for her untiring efforts in trying to resolve the Hartlaub Lake situation. We appreciate all that you have done to help Hartlaub Lake.