Tomahawk Lake AIS Control Grant for 2016

Quarterly Report

Quarter No. 1

April 1st, 2016 - June 30, 2016

The following quarterly report documents the activities that were undertaken during the first quarter of the Tomahawk Lake AIS Control Grant for 2016. Subsequent quarterly reports will be forwarded as they are generated per the grant agreement.

The first quarter of the grant period contained activities that represented the start-up of this one year grant. Activities included:

2016 Spring Pre-Treatment Survey:

- 1. The performance of the Spring Pre-Treatment AIS "Confirming" Survey, which basically accomplishes three functions:
 - A. The physical re-survey of the size and shape of the initial chemical treatment polygons which were established in the initial Pre-Treatment AIS Survey performed in the previous fall.
 - B. The addition of any polygons that were not included in the fall survey but that meet the surveyor's criteria for chemical treatment.
 - C. The monitoring of the environmental conditions in the lake that act as a trigger for the chemical treatment to take place. The triggers are 1. The attainment of a water temperature of 60 degrees at plant depth within the polygons, and 2. Plant conditions which indicate that the EWM plants are "viable" and ready to take up the aquatic herbicide at the time that it is applied. This requires that plant stems are obtained from the lake bed within the polygons and when these stems are examined

by the surveyor, the inner tissues are green and ready to take in herbicide.

In May of 2016, the environmental monitoring began on May 3rd, and the confirming survey was done on May 10th - 12th. The results of the survey were emailed to WDNR on the $24th^{th}$, and the final approval for treatment was received on May 25th.

2016 Chemical Herbicide Treatment:

Following the WDNR final approval of the chemical treatment permit, the chemical herbicide treatment was made beginning on June 1st and was completed on June 3rd. A total of 25.72 acres were treated within 13 polygons. A copy of the treatment record is included.

2016 Hydraulic Conveyor Startup:

The process of Hydraulic Conveyor System (HCS) began on April 8th, with the placement of advertisements for divers in the Lakeland times newspaper as well as on the school of natural resources jobs boards located on several campuses of the University Wisconsin. Diver applicant selections were made in mid-May and divers reported to work on Tuesday, May 31st.

As is always the case early harvesting yields were comparatively small, but as the month of June progressed it was apparent that growing conditions for EWM were quickly becoming favorable. Drained weight EWM harvested totals for the month of June were representative of those of previous startup months in past years.

Additionally, the HCS team attended the plant identification workshop sponsored by UW trout Lake station on June 28 at the UW/Kemp research station.

2016 Purple Loosestrife Beetle Propagation:

Beginning in the first week of May, TLA built a beetle propagation facility at the home of it's Executive Director. The facility features a capacity for 18 Purple Loosestrife plants. The plants were than dug from

a P.L.S. bed in the city of Rhinelander, with technical assistance from the Oneida County AIS Coordinator. Beetles were procured from the WDNR in Madison. Of the 18 plants that were placed in the facility, 8 failed to grow out, and 10 received beetle placement.

2016 "Sentinels" AIS Monitoring:

The "Sentinels" AIS monitoring group of 16 teams began operations with it's initial AIS Survey, performed in the last two weeks of June. 16 sectors within the Tomahawk Lake Watershed were surveyed, using GPS data collectors to select and store infestation site data for each location where Eurasian Water Milfoil (EWM) was found. The data collectors were turned in, and the data down loaded into a master AIS map. The map generated is used by the Hydraulic Conveyor Dive team to locate and target new EWM infestation for harvesting.

This completes the activities report for the first quarter of the Tomahawk Lake AIS control grant for 2016.

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The Tomahawk Lake Association, Inc.