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Emily Heald

Water Program Coordinator, North Lakeland Discovery Center

[water@discoverycenter.net](mailto:water@discoverycenter.net)

(715) 543-2085

RE: NLDC reporting for Wisconsin Department of Natural Resources, AEPP-550-18 Town of Winchester Lake Management Planning Project Phase 4: Circle Lily, Pardee, Helen, and Adelaide Lakes Activities from September 2019 through February 2020

### **Overview**

The Town Aquatic Invasive Species Partnership (TAISP), founded in 2010, consists of the North Lakeland Discovery Center (NLDC), the Towns of Manitowish Waters, Boulder Junction, and Winchester, the Manitowish Waters Lake Association (MWLA), and the Winchester Town Lakes Committee. The TAISP works together to prevent the introduction of and minimize the spread of aquatic invasive species (AIS) in the Winchester area and its associated surrounding wetlands and riverways. The TAISP partners with Onterra, LLC, to complete a phase-based management plan for Winchester Lakes. Each phase covers 2-3 lakes within the Town of Winchester, where the NLDC and Onterra study the lakes in current phases extensively. Results are compiled into individual management plans for each lake, and contribute to a larger, overall management plan for the entire Town. A large, underlying issue of each grant is also the control and treatment of curly-leaf pondweed, and aquatic invasive plant.

Each year NLDC monitors the Winchester Lakes with the goal of mapping current populations of AIS, and to look for any new infestations.

Curly-leaf pondweed (CLP) has been the main AIS of concern, as the Harris Lake Association (HLA) discovered it in Harris Lake in 2008, but NLDC also treats and maps purple loosestrife infestations, and monitors for other AIS such as Eurasian-water milfoil, spiny water flea, rusty crayfish, mystery snails, and yellow iris. At the moment, Harris Lake is the only known lake containing populations of CLP.

The HLA contracted with Onterra in the fall of 2008 to develop a strategy for CLP management. After the monitoring and assessment surveys in 2009 and 2010, herbicide was applied on approximately 10.4 acres in the spring of 2011. CLP was treated again in 2012 (4.1 acres) and 2013 (2 acres). Smaller patches of CLP not treated with herbicide were hand pulled by HLA volunteers. No CLP was found in 2014. In 2015 Harris Lake joined Onterra and NLDC in the first phase of the Town of Winchester Lake Management Planning Project. No CLP was found in 2015. Onterra located and removed 3 small plants in 2016. In 2017, NLDC Water Program Coordinator located several more plants in the same area as 2016. NLDC staff and volunteers removed the plants. In 2018 NLDC located several CLP plants in the same area as 2017. NLDC staff removed the plants. In 2019, NLDC found only two small plants in the reoccurring area and hand removed them. However, we also found a new area of CLP in the bay just north of the 2017/2018 occurrences. 14 person-hours were spent removing the small patch. NLDC will continue to monitor these areas.

Please see Onterra reporting for additional information and maps of the Harris Lake CLP.

The lakes covered in each phase are as follows:

Phase I (2015): Harris and Hiawatha Lakes

Phase II (2016): Birch, Rainbow, and Tamarack Lakes

Phase III (2017): South Turtle, North Turtle, and Rock Lakes

Phase IV (2018): Pardee, Circle Lily, Adelaide, and Helen Lakes

### **Activities and Deliverables**

1. Stakeholder participation: stakeholder survey, planning meetings, kick-off meeting, wrap-up meeting, news releases and newsletter articles.
  - a. On June 28, 2019, 9 people attended a planning meeting with Onterra for 3 hours (27 person hours total) to review 2018 field work results. Then, on July 18, 7 people met with Onterra for 2.5 hours (17.5 person hours) to begin drafting the implementation plans.
  - b. Please see supporting document for copies of articles from newsletters and social media.
2. Water quality sampling and analysis
  - a. Please see Onterra reporting documents.
3. Watershed assessment and P load modeling
  - a. Please see Onterra reporting documents.
4. Fisheries assessment
  - a. Please see Onterra reporting documents.
5. Shoreline and coarse woody habitat assessment
  - a. Please see Onterra reporting documents.
6. Early-season AIS monitoring and professional Dreissena monitoring
  - a. Onterra completes Dreissena monitoring as a donated service during field work.
  - b. Details provided in list of activities in previous report. CLP was located on Harris Lake in 2017, 2018, and 2019. Each year the CLP was pulled by NLDC staff and volunteers.
  - c. Please see list of activities in previous report for dates of AIS monitoring on Winchester Lakes.
7. Aquatic plant surveys
  - a. Please see Onterra reporting documents.
8. Volunteer AIS and lake level monitoring and water craft inspections
  - a. NLDC Water Program Coordinator monitors lake levels on 39 lakes in Vilas County, including Birch, Rainbow, Tamarack, Harris, Pardee, and Hiawatha in Winchester. This is an 8-year partnered effort between NLDC, Lac du Flambeau, and Trout Lake Research Center. NLDC Water Program Coordinator and a licensed volunteer surveyor install and remove each lake gauge. Volunteers read gauges once per week from ice out to ice on. Data are compiled into a long-term database, as well as entered into SWIMS each year. Data are shared with Trout Lake Station in Boulder Junction, WI to be analyzed for scientific research.
  - b. See list of programs and events for gauge removal information.
9. Data analysis
  - a. Please see Onterra reporting documents.
10. Develop lake management plan
  - a. Please see Onterra reporting documents.
11. Hire AIS Coordinator and Water Education Intern
  - a. Emily Heald, Water Program Coordinator at NLDC, continued to serve as project manager for this grant.
  - b. Interns recently hired for summer 2019 are: Jarod Scheff (Dennison University), Eric Curtis (Millikin University) and Nicole Spears (UW Stevens Point)

12. AIS educational activities

- a. AIS Coordinator attends all lake association meetings for lakes involved in the phase-based lake management planning process, providing updates on projects, promoting the volunteer program, and teaching about issues significant to water resources.
- b. AIS Coordinator provides articles to the Winchester lake association newsletters regarding project updates, AIS information, promotion of the volunteer program, and general lake ecology. In some cases, lake association board members prefer to write the articles, in which case the AIS Coordinator informs the member of the updates and the board member writes and publishes the articles.
- c. See list of programs and events for program information.

**Additional list of NLDC aquatic educational programs and events:**

9/1/19: Provided updates at Pardee Lake Association annual meeting

9/6/19: Manned AIS informational booth at Musky Classic in Manitowish Waters

9/7/19: Manned AIS informational booth at Musky Classic in Manitowish Waters

9/11/19: Met with Turtle Lakes Chain Association board member to begin preparation of contacting land owners with yellow iris, to be removed in summer 2020

9/23/19: Attended Vilas County Lakes and Rivers meeting

9/26/19: Attended Winchester Towns Lakes Committee meeting

10/5/19: Manned AIS information booth at Cranarama in Manitowish Waters

10/7/19: Attended Town of Winchester town meeting to provide updates and request funding for 2020

10/8-9/19: Attending AIS Coordinators meeting in Ashland, WI

10/17/19: Attended Starry Stonewort webinar

10/18/19: Attended Vilas County Lakes meeting. Served on discussion panel.

10/22-23/19: Re-calibrated and removed lake level monitoring gauges

11/4/19: Attended eDNA Mussel Monitoring seminar

12/4/19: Delivered program "Hidden Lake Creatures" at local library

12/10/19: Grand reopening of campus Nature Center, featuring a new AIS display area

12/19/19: Attended spiny water flea webinar

1/6/20: Attended NR 193 planning meeting with Vilas County

1/23/20: Attended Winchester Town Lakes Committee meeting

2/3/20: Attended Town of Winchester town meeting

2/4/20: Attended Steven's Point career fair to recruit intern applicants

### **Reimbursement requests and rationale:**

- NLDC Executive Director Salary: The Executive Director attends meetings and communicates grant progress to the Board and Finance Committee; tracts restricted funding from grants in the NLDC budgets; establishes program schedules and staffing; attending planning meetings
- NLDC Bookkeeper Salary: The NLDC Bookkeeper provides Quickbooks oversight; assists in filing receipts of reimbursable expenses; tracks credit expenditures; pays bills; prepares financial reports for the AIS Coordinator; payroll; prepares invoices for consultants and towns
- NLDC AIS Coordinator Salary: The AIS Coordinator develops and conducts public outreach at community events; identifies potential AIS samples collected by volunteers; recruits and trains volunteers; compiles volunteer hours for grant requirements; maintains presence in newspaper and newsletter articles and social media; monitors waters for AIS; grant administration and financial management; oversees purple loosestrife bio-control project, monitoring, and flower head clipping; attends town meetings, Winchester Town Lakes Committee meetings, and lake association meetings to provide updates and answer questions; attends lake management planning meetings and discussion; coordinates contractors, reviews contractor reports, and provides feedback; hires and oversees water monitoring interns