



Vilas County Land & Water Conservation

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MEMO

TO: Kevin Gauthier, NOR Region Lakes Coordinator, WDNR, Woodruff
Jane Malischke, Environmental Grants Specialist, WDNR, Spooner

FROM: Carolyn Scholl, Vilas County Conservationist / Department Head

RE: Final report AEPP-402-13

DATE: June 26, 2017

Regarding the final grant report, please find enclosed:

1. For Kevin:
 - a. Final report document & reimbursement request
 - b. A compact disc of supporting documents
2. For Jane:
 - a. Reimbursement request
 - b. One hard copy of ACS Government Financial System expense guidelines documenting county staff salary payments:
April 2013 – June 2016
 - c. One compact disc of supporting documents

Please direct the final payment and questions to:

Carolyn Scholl, County Conservationist / Director
Vilas County Courthouse
330 Court Street
Eagle River, WI 54521

Thank You

Vilas County AIS Education, Prevention, & Planning 2013-2016

FINAL REPORT

Project Number AEPP-402-13



**Prepared by
Carolyn Scholl, Vilas County Conservationist
June 2017**

Grantee

Vilas County Land & Water Conservation Committee

Project Title

Vilas County Aquatic Invasive Species Education, Prevention, and Planning

Project Number

AEPP-402-13

Vilas County Land & Water Conservation Committee

Kim Simac, Chair

Holly Tomlanovich, Vice-Chair

Marv Anderson

Ron Kressin

Carolyn Ritter

Dennis Nielsen

Vilas County Land Conservation Department

Cathy Higley, Invasive Species Coordinator

Mariquita Sheehan, Conservation Specialist

Carolyn Scholl, County Conservationist

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Introduction

Vilas County has one of the highest concentrations of inland freshwater lakes in the world, and more lakes than any other county in Wisconsin. These lakes are vital natural resources held in the public trust by the state. The waters provide the public with unique recreational opportunities and enjoyment of scenic beauty. The lakes are critical resources that sustain the major tourism economy of Vilas County. Aquatic invasive species pose a serious threat to the health of our surface waters and to the very culture of Wisconsin's northern lake region. Recognizing these facts, Vilas County government staff and elected officials work hard at protecting these vital natural resources.

Vilas County Land & Water Conservation recognizes that lakefront property owners and lake organizations often need guidance and direction when it comes to managing "their" lakes. Volunteer assistance is a definite necessity when it comes to monitoring the numerous lakes of Vilas County, and those volunteers need a local resource where they can get questions answered, training needs coordinated and met, and grant information and support.

The invasive species management and education program remains one of Vilas County's top priorities, and is recognized as such by the Vilas County Board of Supervisors and in our Land & Water Resource Management Plan. The Land and Water Conservation Committee in particular, have recognized the importance of retaining this program and the staff within this Department for this purpose. We would like to thank the Wisconsin Department of Natural Resources for providing this funding and we appreciate the cooperative manner by which the DNR staff works with us to achieve our lake-related Land and Water Resource Management Plan goals.

The Vilas County AIS Education, Prevention, and Planning program has had a successful run in all of the goals and objectives that were originally outlined in the grant proposal. As noted and detailed in the report to follow, the activities outlined in the project scope were achieved at or above standard in what was originally expected.

Project Activities

The scope of this project included the following activities and accomplishments. Each are outlined further in the next section.

- (1) Administer and manage the AIS grant to support the continued position of a county Invasive Species Coordinator
- (2) Outreach and Education: Educate county-wide partners and stakeholders in all aspects of Invasive Species management. Staff will host 1-3 AIS workshops per year, forward press releases, maintain current information on the website, maintain public contact via an email listserv, participate in the boat landing blitz, and lend technical support upon request. Educational materials will be prepared and distributed as needed.

- (3) Maintain the *Clean Boats/Clean Waters* watercraft inspection program in partnership with UW-Oshkosh; Support WDNR AIS management activities
- (4) Support WDNR invasive species program developments
- (5) Management of invasive species; Maps of current lakes with AIS will be updated
- (6) The Invasive Species Coordinator will attend the state and regional AIS Coordinator meetings, local lake organization meetings, town lake committee meetings and keep up with the state and local AIS networks. They will also keep informed of current AIS knowledge and programming by attending seminars, meetings, and conferences.

Project Deliverables & Accomplishments

The AIS grant project for countywide education, prevention and planning efforts was highly effective in achieving the activities identified in the project scope. Many of the accomplishments delivered were mutually beneficial in meeting the management goals of both the Vilas County Land and Water Conservation Department and the northern region Department of Natural Resources in Rhineland.

Specific accomplishments addressing each project objective are described here.

(1) Administer and manage the AIS grant to support the continued position of a county Invasive Species Coordinator

The retention of staff persons within the Land and Water Conservation Department over the course of 3 years was made possible in full by this WDNR grant funding. The full-time Invasive Species Coordinator, Ted Ritter (retired in February 2015) and Cathy Higley (Started in April 2015), were responsible for managing all aspects of the county's invasive species program. In addition, Conservation Specialist Mariquita Sheehan allocated a percentage of her professional time to assist the regional WDNR staff in AIS related field activities that were completed within the boundary of Vilas County (from July 2013 through 2014*). These county personnel were essential for the successful completion of the goals and objectives that were outlined for this project. *Note: Starting in 2015, Ms. Sheehan's time was dedicated to another WDNR grant that was awarded to Vilas County.

The Land and Water Conservation Committee members were updated each month about Department staff activities. At their regularly scheduled monthly meetings committee supervisors received written and oral summary reports from the IS Coordinator and all other staff. The Coordinator's committee reports are available on the CD of information submitted to the WDNR with this report.

Planning and update of the Land & Water Resource Management Plan was accomplished during late 2013 through 2014. Coordination efforts for this activity were completed by the County Conservationist, and the planning process requires input from interested members of the public, county & state resource professionals, and elected members of the county board. The newly revised Land and Water Resource Management Plan was approved in 2015 by the Vilas County board, and once again, AIS Education and Management is included as one of the primary work goals of the County from 2015-2019.

The reimbursement process for this grant will take place in two phases. An advance payment in the amount of \$25,000 was received by Vilas County at the start of the grant back in April of 2013. Throughout the duration of the project, all conservation staff logged their activities, work time, travel, and project related expenses on an Excel spreadsheet which was created specifically for this project by the Vilas County Conservationist. At the completion of this report, the County is now seeking reimbursement for the remaining \$75,000 of the grant project.

This report is submitted as the final closeout reimbursement request. It includes a comprehensive written report of all activities accomplished during the course of the three year grant period – from April 2013 through June 2016.

- (2) *Educate county-wide partners, volunteers, elected officials, town lakes committees, lake organizations and other stakeholders about invasive species prevention, monitoring, evaluation, management, funding opportunities and other appropriate topics*

PUBLIC OUTREACH

The Invasive Species Coordinator(s) were diligent in reaching out to the public to inform them of aquatic or terrestrial invasive species topics and up-coming events. Public outreach was on-going throughout the project time frame and was accomplished through newsletter articles, local media outlets such as newspapers, television interviews, radio spots, email blasts, development of the Conservation Department website, and through participation in the annual Landing Blitz event. Each is discussed further below.

Organization Newsletter Articles – Lake organizations who have regular newsletters for their membership often request information from the staff here in Vilas County Land and Water Conservation. We try to accommodate these requests by preparing information during slower months of the year. Below is an idea of the information that was provided during this project:

- 2015** Chinese Mystery Snail article for the Eagle River Chain of Lakes Association (ERCLA) newsletter
- 2016** ERCLA newsletter article about the Vilas County Purple Loosestrife beetle rearing program

Local Newspaper Releases – Local media sources were always willing to assist in making the public aware of the accomplishments and events of the Vilas County Invasive Species Programs. Each year during this grant funded project, they requested information from the Invasive Species Coordinator and annual summaries of events and accomplishments were published in the *Vilas County News Review*. In addition, other local papers publish information that is sent out from the office via news releases.

- 2013** PL bio-control media release; WHIP roadside survey media release

- 2014** Article for *Vilas County News Review* 2014 Progress Edition; Lake Stewardship Award media release; Interviewed by the *Lakeland Times* regarding the AIS Partnership meeting held in Boulder Junction
- 2015** Article for *Vilas County News Review* 2015 Progress Edition; AIS Early Detection Surveys Press Release, submit general AIS information to News Review; 5/13 Organize data for media request – AIS; 6/2 Press release for Drain Campaign;
- 2016** Article for *Vilas County News Review* 2016 Progress Edition; *Lakeland Times* article re Anvil L AIS & TIS; Invasive Species ID Day Scheduled in the Northwoods, Vilas Lakes Benefit from Another Year of DNR Grants

Radio / Television Interviews – Local media personnel periodically contacted the county Invasive Species Coordinator to conduct live interviews via television or radio outlets. During the spring or fall seasons, especially when certain invasive species were prevalent or blooming, media would interview the AIS Coordinator and readily get the information out for the public to hear and learn.

- 2013** 5/14 Newswatch Channel 12 interview re AIS Grant Awards; 11/19 Newswatch Channel 12 Phragmites project awareness interview; 5/24 WXPR Invasives Education Summit Interview; 12/5 WXPR Phragmites early detection interview;
- 2014** Quiet
- 2015** 11/6 Radio spot on WRJO on AIS partners and EWM/2,4-D/fisheries research; 12/30 Newswatch Channel 12 interview on Japanese Knotweed
- 2016** Newswatch Channel 12 Interview on Purple Loosestrife Bio-Control Project

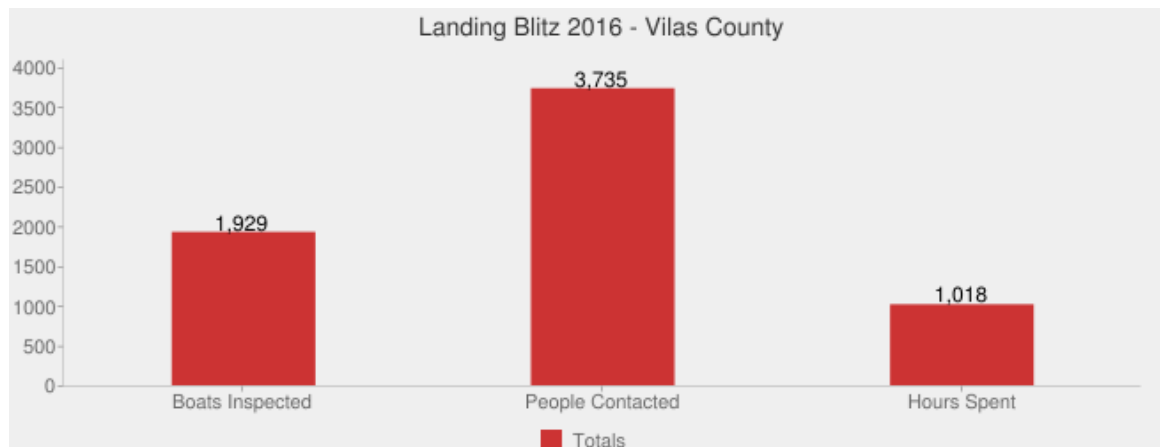
Email List Serve – The County IS Coordinator kept an email list serve of approximately 300 individuals who had expressed an interest in and had requested to be included on the list who of individuals who received emails. As information became available, emails were written and distributed. This activity was essential to keeping everyone informed on current issues in real time throughout the year. It didn't matter if they were seasonal or permanent residents, the information was consistently delivered. Below is a listing of Email blasts from Spring 2013 to June of 2016.

- 2013** Invader Crusader Award; CBCW Inspection Form Revision; Chrystal Schrek position change & new NR40 Contract Announcement; Vilas Co lakes with Spiny Water Flea; Algae Workshop; Early Detection Citizen Monitoring; Clean Angling Survey; In Lake Monitoring for Invasive Plants; MIPN Update – New Aquatic Fact Sheets!; Is it Elodea or Hyrilla?; Grant-funded project to control newly established Phragmites patches; Kevin

Gauthier Change of Office Location; Let Your State Legislators Know You Support AIS Control; Hunters / Trappers Reminded to check gear for invasive species; New Asian Carp Brochure; Oak Wilt; Join the Wisconsin Invasive Species Council for a plan Implementation Workday; Employment Opportunity – WI Headwaters Invasives Partnership; We Could Have It Worse; Thousand of Dead Loons Found on Northern Michigan Shorelines; Proposed Revisions to the WDNR Surface water Grant Programs; MEDIA ADVISORY Invasive species online chats scheduled for June 4 and 6 12 p.m. as part of Invasive Species Awareness Month; VHS Update; Vilas County End of Season CBCW Summary

- 2014** CBCW Training is Critical – Workshops are being Scheduled; CBCW Program Changes – Re-Training is Critical; Vilas 2014 CBCW Workshops – Final Update; First Detector Training now open for All; Invader Crusader Award Time to Nominate; New Multi-state AIS public Service Message; Spiny Water Flea Confirmed In Trout Lake; North Lakeland Summer Employment Opportunity; DNR Lakes Blog Greg Karch recognized as a Stop Aquatic Hitchhikers Partner in Action; Fieldguide to WI Streams is here; Frog-Bit; DNR Lakes Blog – A Leaner CBCW Grant Program; License Holders with AIS Message; Deadly Bat Disease Confirmed in WI; CLMN Volunteer Survey; New Surface Water Grants Application and Guidance; Final CBCW Workshop of the season; Vilas AIS Partnership 10 year review presentation on the website; Buckthorn kills amphibians; How Water works in the Northwoods – Science On Tap; Yellow Iris – Shoreline / Wetland Invasive Plant; VCLRA Shoreline Stewardship Initiative; Emerald Ash Borer Update; 2015 WI Lakes Conference Call for Presenters; Starry Stoneart Found for the first time in a Wisconsin Lake; Through the Looking Glass Updated Edition
- 2015** A new year, a new direction – Ritter Retires; WI Lakes Partnership Conference Announcement; Another Reason to keep Hydrilla out of WI Lakes; Lakes & Wetlands and the Economy of Vilas County; WDNR Surface Water Grant Deadline Reminder; 2016 Vilas County CBCW Program Solicitation; Reminder re: Vilas County AIS Partnership mtg; Volunteer Recruitment for honeysuckle Mngt, Reminder re: EWM/2,4-D Fisheries Research presentation
- 2016** License Holders with AIS Message; Drain your livewells!; FYI - some interesting data on fish populations, water quality, lakeshore development, and watersheds

We got Blitzed! – No, not the over consumption of alcohol...it was the users of the Vilas County boat landings that were blitzed with information on the July 4 holiday weekends about how they can be better stewards of our lakes and make AIS prevention one of their top priorities! Vilas County participated in the annual Landing Blitz activity from 2013-to the present. We announce to our email list and now (Constant Contact) list that the towels are available for pick up at the Vilas County Land & Water Conservation office. If folks couldn't make it to the office, other arrangements were made to distribute the Stop Aquatic Hitchhikers towels to interested parties. Below are the statistics about how many boats were inspected, people contacted, and hours spent during the July 4 weekend Land Blitz's for 2016.



Website – The Vilas County website is in need of continuous updating and the AIS Coordinator was / is in charge of this on-going activity. The website, although important is not the first priority for the Conservation staff, especially during the summer months. Updates and revisions to the website typically occur in the dead of winter and whenever there's a quick moment to display something new. All Department staff periodically meet to discuss updates, web page design and layout, and overall revision and content for the website. The Invasive Species Coordinator was in large part responsible for the entire revision process and maintenance of the website.

EDUCATION

The Invasive Species Coordinator reached out to groups of all ages throughout the grant years for educational opportunities. Workshops and educational programs were prepared and presented to lake groups, civic groups, local town governments, and for school groups. Education was on-going throughout the project time frame and was accomplished in many different ways as reported here:

Materials – It is pretty rare if the staff from Vilas County go empty handed to a meeting or presentation. People have different ways to retain information, and with that fact in mind we often prepare handouts or other types of reading materials that accompany us to these events. Outlined here are examples of what types of materials were prepared over the years:

- 2013** Prepare a Yellow Iris Alert factsheet; Create public notices for treatment of invasive species for Kentuck Lake and the ER Chain; Prepare a factsheet re Town Lakes Committees; Prepare PL bio-control project materials; Prepare tub materials for all UWO CBCW Interns; Prepare VCLRA annual meeting AIS Monitoring tabletop display;
- 2014** Create Manitowish Chain of Lakes herbicide treatment notice riparian property labels, prepare information re: wetland invasive sps, information emailed out re: Emerald ash borer update; Prepare PL bio-control project materials; Prepare tub materials for all UWO CBCW Interns
- 2015** Create a flyer for Big Lake Property Owners Association on Narrow-leaved Cattails (Appendix A); Prepare tub materials for all UWO CBCW Interns; Prepare PL bio-control project materials; Creation of flyer information to residents on Brandy Lake (see Appendix B re: 2, 4-D/Fisheries/EWM research)
- 2016** Ice Fishing Tournament AIS awareness brochure (Appendix C), Flyer for Crystal Lake AIS ID class; Prepare tub materials for all UWO CBCW Interns; Prepare PL bio-control project materials

AIS Workshops (non-CB/CW) – Vilas County conducts public outreach often by presenting hands-on workshops. Listed here are those workshops conducted in AIS Monitoring Early Detection and Species ID in a non - Clean Boats / Clean Waters context. Workshops were usually conducted in a classroom setting, but sometimes class was held outside on a pontoon boat for small groups.

2013 Vilas AIS Workshops		
Date	Event	Attendees
24Apr	ISCCW CBCW training	22
1May	Anvil Lake EWM monitoring	6
6May	St. Germain Lions Club CBCW training	6
9May	Anvil Lake CBCW training	12
24May	Summer CBCW interns/sponsors training	15
13-Jun	Deerskin Lake Ass'n CBCW training	15
20-Jun	North Lakeland Discovery Center plant ID	12
3-Jul	Lost Lake CBCW training	22
6-Jul	Big Portage Lake Ass'n AIS update	27
7-Jul	Easy Eagles PL bio-control	30
20-Jul	Deerskin Lake Ass'n AIS update	46
31-Jul	Bass Lake Ass'n EWM/CLP monitoring	16
		229

AIS Workshops (CB/CW) –

2014 Vilas AIS workshops		
Date	Event	Attendees
	Wetlands AIS monitoring workshop	
7-Jul	Crab L AIS plant early detect workshop	13
12-Jul	Mann L AIS plant early detect workshop	6
17-Jul	Smoky L AIS plant early detect workshop	7
23May	CBCW UWO Summer Interns Workshop	25
28-Apr	CBCW refresher workshop - LOL	13
7May	CBCW workshop - St. Germain	27
15May	CBCW workshop - Presque Isle	18
21May	CBCW workshop - Discovery Center	9
3-Jun	CBCW workshop - Lac du Flambeau	33
6-Jun	CBCW workshop – Hiles	27
7-Jun	CBCW workshop – St. Germain	21
21-Jun	CBCW workshop - Arbor Vitae	6
19-Jun	TFT Career Days Workshop	
25-Jun	CBCW workshop - Plum Lake & LOL	24
2-Jul	CBCW workshop - St. Germain	9
24-Jul	Big Lake CBCW workshop	11
14Aug	CBCW Workshop - Manitowish Waters	10
	UWO CBCW Follow Up Workshop	9
8-Jul	CBCW workshop - St. Germain	24
	CBCW workshop - Presque Isle	10
		302

It was also important to us that many people were trained in the Clean Boats Clean Waters watercraft inspection program. Student interns as well as many dedicated citizen volunteers who participated in the workshops help throughout the county Workshop details are given in the CBCW Program section of this report.

AIS Workshops (Continue)

2015 Vilas AIS Workshops		
Date	Event	Attendees
20-Jun	Fence L - CBCW Training Workshop	34
22-Jun	CBCW Workshop - North Lakeland Discovery	6
31-Jul	CBCW Workshop - Plum Lake Town Lakes	2
22May	CBCW UWO Interns Training (& public)	39
4-Aug	CBCW Workshop - Winchester	6
		87

2016 Vilas AIS Workshops		
Date	Event	Attendees
2-Jul	CBCW Workshop Big Lake	16
20-Jun	CBCW Workshop Camp Ramah	12
27-Jun	Aquatic Plant ID Workshop - Brandy L	12
13-Jun	CBCW Workshop Discovery Center	9
5-Aug	CBCW Workshop Forest L	5
27May	CBCW UWO Interns Training	22
		76

Public Presentations (Non-Workshop) - Over the entire duration of the grant project, the AIS Coordinator conducted well over the minimum 1 - 3 per year requirement of AIS and TIS related Powerpoint and oral presentations to audiences of all ages. Listed here are the number of presentations that were conducted not including the workshops that were completed and discussed in the previous section: Six presentations were given in 2013, 4 were prepared and presented in 2014, 4 in 2015, and 4 presentations as of June 2016. These presentations included various youth classroom activities, civic groups, lake organizations, town lake committees, and county conservation committee meetings.

2013 PL presentation to NPHS, St. Germain Wildlife Club Invasives update, Phelps Library TIS presentation, Present at Tribal Historic Preservation invasives meeting, Easy Eagles PL bio-control presentation, Deerskin Lake Association ann'l meeting AIS update presentation

2014 – February 14 NE Counties Code Administrators invasive presentation in Crandon, St. Germain Lions Club CBCW update, Papoose and Birch Lakes Association annual meeting and presentation

2015 – Presentation on natural resource careers at Northland Pines high school, AVW School 4th graders – AIS in Vilas County at Northwoods Invasive Species Poster Contest Awards ceremony, Nelson Lake

Association annual meeting – talk on Canada thistle management, Boulder Junction Lions – talk on AIS/TIS issues locally

2016 Vilas County Trails Ad Hoc Committee (Jan 22nd) – overview on TIS issues locally, SOAR Middle School – CLMN opportunities for community service hours presentation, SOAR High School (May 26th) – EWM handpulling presentation, Brandy Lake (June 30th) – Aquatic Plant ID on Brandy L

Promote Public AIS Awareness & Encourage Local Initiatives – Vilas County participates in a few statewide initiatives that spread AIS awareness throughout the county and in various ways we encourage local AIS management initiatives countywide.

Organization Support – Vilas County Land & Water Conservation Department staff are very involved with the lake organizations and Town Lakes Committees year around. If they have a need for assistance we try to accommodate. The AIS Coordinator especially made it a priority to attend monthly town lake committee meetings, especially those in Winchester, Presque Isle, Phelps, Plum Lake, Lac du Flambeau, and St. Germain. Each of the aforementioned town lake committees have been very active in lake management and AIS prevention & planning efforts. The County provides them with assistance at all levels of their projects, and keeps them apprised of the latest lake management initiatives. In addition to meeting attendance, town lakes committees and individual lake organizations throughout the county looked to the AIS Coordinator for letters of support when applying for WDNR grant funding, see Appendix D.

Ice Fishing Tournament Educational Outreach – In late 2015 the new AIS Coordinator began a targeted effort with direct outreach to organizers of Ice Fishing Tournaments. Lake specific brochures (entitled Tip (Ups) for Northern WI Ice Anglers – Appendix C) were created to make fishermen aware of existing species in the lake and other AIS information. During that winter, & events were attended to encourage tournament participants to be aware of AIS, and to clean their equipment after each use. The tournaments that the Coordinator attended were: Big St. Germain, Lac Vieux Desert Great Northern Ice Fishing Tournament, WI River, Allequash L, Plum L, Carroll L (Oneida Co), AIS display at Carrol Lake ice fishing tournament.

Drain Campaign – Ice Your Catch –

The Drain Campaign was initiated by AIS Coordinators in Vilas and Oneida counties back in 2012 to teach and encourage anglers to check their boat, drain their bilge tanks, livewells, and bait buckets prior to leaving a landing area. In 2015, this concept grew legs statewide and is now practiced everywhere in Wisconsin! Vilas County has been utilizing this approach since 2012 and it continues today. One of the concepts that receives respect

here in Vilas County is the *Ice Your Catch* ice pack distribution. There are numerous lake organization that receive the ice packs to give out at boat landings, especially when volunteers (or the UWO Interns) are conducting watercraft inspections. Anglers keep their catch fresh by leaving live fish in their livewells. Since we are encouraging that they drain them before leaving the landing, we need to have an alternative solution to keeping the daily catch fresh. At the very same time the AIS law against the transport of water and live fish is actively being curtailed.



AIS Bridge Snapshot Day – The AIS Coordinator assisted those volunteers who were interested in participating in the annual AIS Bridge Snapshot day event to collect data across the state on September 13, 2014. Appendix E outlines the day’s plan and the 4 sampling locations that 6 volunteers investigated.

(3) Maintain the Clean Boats/Clean Waters watercraft inspection program in partnership with UW-Oshkosh; Support WDNR AIS management activities



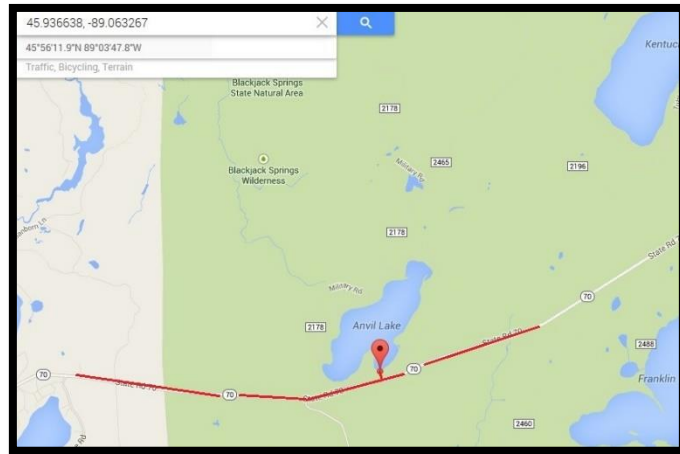
COORDINATE CBCW PROGRAM – What started out as a budding program in Vilas County, has now grown to become a great opportunity for many college students to gain real-world experience in the field of AIS management. The watercraft inspection internship program is a cooperative effort between the Biology Department of University of Wisconsin, Oshkosh and the Vilas County Land and & Water Conservation Department. It enables students to live and work in Vilas County from late May through approximately mid-August each summer. While performing watercraft inspections at public boat landings

and educating boaters about aquatic invasive species, these students are gaining valuable working experience.

There is a significant amount of time that Vilas County puts in to coordinating and maintaining the UWO Student internship program for CB/CW. As much as the effort is great, we feel it is worth it for the number of hours of watercraft inspection coverage the landings here in Vilas County are receiving in monitoring time. Coordination efforts for the next field season begin as early as September of the previous year. Below is an overview of what the AIS Coordinator annually puts into this program:

- **Planning the annual field season** – Meetings with representatives from UWO begin at the end of the current CB/CW season. Once the students have returned to college, a “de-briefing” meeting of the current inspection year takes place so that, if necessary, improvements can be discussed for greater efficiency the following year. Late in 2013, a new streamlined CBCW grant program became available, and the AIS Coordinator needed to learn the process to disseminate the information to lake organizations. In September of each year lake organizations are notified of the grant opportunity available to them through the WDNR and that UWO students will be partnering with the county. The Vilas County Coordinator solicits feedback from lake organizations through various means, but mainly through the email list serve. If lake groups are interested in participating with the UWO/County partnership, they MUST fill out a form (Vilas County Lake Organization Request for 2016 Clean Boats Clean Waters Services from UW-Oshkosh) and return it to Vilas County early enough so that the Coordinator can notify UWO of the number of lake organization participants for the following year. The AIS Coordinator is typically busy at this time assisting multiple lake organizations through the grant process (with either the grant reimbursement process for the current year OR with the grant proposal process for the following year). At the same time, the Coordinator must tally up the current year statistics for program participants to report on their own grant reports.
- **Student Work Schedules** – In February or March, UWO begins the hiring process for student interns and informs the County of each person hired. The Coordinator utilizes the forms that were returned from lake organization to go about creating the intern work schedules. This means that summer schedules were made up for 11 students in 2013, 14 students in 2014, 20 students in 2015, and 19 students in 2016. This process is extremely labor intensive and must be completed meticulously in order to work out for all parties concerned. Add in the fact that interns or lake groups often make late requests for changes, and the process begins again. Once complete, the work schedules are sent out to each of the participating lake organizations so that they may begin the task of filling in volunteer hours when a student inspector will not be attending the landing. In 2015, the intensive scheduling workload was turned over to a hired staff person from UWO. This did free up significant time for the new, in-coming County AIS Coordinator during 2015 and 2016.

- Supplies** – During the late winter months, supplies are purchased to prepare all of the materials needed for the student interns. Supplies that are ordered at this time include items needed for both the spring training sessions that the Coordinator has planned for volunteers and to supply each UWO student with a plastic tote kit (tub) full of all the things they will need for the CBCW program. Some of the more important items included in the tote are: CBCW publications such as Watch Cards and ID cards, brochures that will be handed out to the public, the Clean Boats Inspector Handbook, maps to all the boat landings participating in the current year, forms for interviews with a clipboard, a one page prompting script (Appendix F), a first aid kit, persons to contact in case of an emergency, and 2 t-shirts for each student to wear to identify themselves. The County Coordinator then prepares the tote kits for each intern (up to 20), photocopies of necessary forms for interns are prepared, and boat landing maps (example shown above) with written driving instructions included.



- Training the CB/CW Inspectors** – The Vilas County Coordinator plans several CBCW training workshops at various sites across the county to take place during spring. Coordination of these workshops depend on lake organization & UWO student inspector participants and many individual groups looking to train CBCW volunteers on their lakes. Each of the 2-3 hour workshops include a Powerpoint presentation that goes through each of the most important species that inspectors should be looking out for, and tips about how to approach boaters at the landings. Workshop participants are then taken through a quick version of an Aquatic Plant ID class so at the very least they have been exposed to what real specimens of EWM and CLP looks like. Samples for the workshops are collected by the AIS Coordinator typically one day prior to the workshop. The number of CB/CW OR citizen volunteers trained to monitor for AIS in the lake each year of the grant are as follows:

2013 = 229; 2014 = 302; 2015 = 87; and 2016 = 76

*NOTE: The number of citizens trained by the County Coordinator in 2015 and 2016 dropped off because of a few factors. Most important was that Ted Ritter retired in February of 2015 and the new Coordinator, Cathy Higley,

started in Vilas County in late April and left on family leave for 6 additional weeks following that. In 2016, the AEPP grant ended in June and other duties were given priority following that date.



- Student Oversight** – In addition to preparing the students for CBCW inspections, the County Coordinator had additional responsibility to the UWO student interns. Performance Issues: 1) After a few phone calls to the County in 2014 regarding the absence of CBCW students that were otherwise scheduled to be monitoring at given landings, it became apparent that “unannounced” boat landing visits needed to take place. It was found during some of the visits, that some of the “less ethical” students took advantage of the program by choosing when to be at the landings – if at all. They didn’t know that they were being checking up on. Needless to say a few firings took place during this time. 2) Another issue that the Coordinator needed to address on performance was the data being placed into SWIMS by the students. The Coordinator makes it a necessary duty to assure that the SWIMS data is being placed into the database correctly and that the data is valid. Student Safety Issues: An unfortunate event took place during the 2014 field season that took a significant amount of time and attention from the AIS Coordinator. Two of the students had been placed in unsafe living conditions that needed to be immediately addressed. This was completely unforeseen on the part of the county. Due to the legal nature of this situation, not much more can be reported on this issue in this report. What can be noted however, is that after 2014, the County no longer took on the placement of the student interns into summer housing.

It is important to Vilas County that each student participant in the CBCW intern program is honest and trustworthy in developing a sound work ethic. It was also necessary to us that the students felt they could/can contact us in case they had any kind of concern or emergency. This was addressed by placing contact information into the totes that each student receives. Another notable change

to the program in 2015 and 2016 was that the AIS Coordinator held meetings for the interns every 3 weeks throughout the summer months. The meetings served as a check on the students and conversely, an opportunity for the students to report any concerns or notables that they had observed. If they had questions about AIS identification or transferring data to SWIMS, they were addressed for everyone at these meetings. This meeting requirement served as a positive step in the UWO CBCW program, and continues today.

- **Data Oversight** – Over the course of this grant period (2013-2016), it was observed that a significant increase occurred in the number of hours of paid inspection time at participating boat landings throughout the county. This would make sense because it coincides with the WDNR release of streamlined CBCW grants for lake organizations in 2014. The grant streamlining has been a definite success in Vilas County. The numbers are outlined here.

2013 Paid inspectors completed **4,700** hours: Participating Lakes (hour breakdown not specified): Anvil, Big Arbor Vitae, Big, Big Portage, Big Sand, Big St. Germain, Deerskin, ER Chain of Lakes, Found, Kentuck, Little St. Germain, Long, Lost, Muskellunge, N&S Twin, Plum Lake, Van Vliet

2014 Paid inspectors completed **8,999** hours: 20 hours at Allequash Lake, 200 hours at Anvil L, 400 hours at Ballard Lake; 68 hours at Big Arbor Vitae; 225 hours at Big L; 213 hours at the Big Muskellunge Lake; 301 hours at Big Portage; 614 hours at Big St. Germain; 201 hours at Big Sand; 726 hours at Black Oak; 1 hour at Boot Lake; 215 hours at Butternut; 203 hours at Catfish; 6 hours at Clear; 336 hours for Crab; 209 hours at Deerskin; 202 hours at Eagle L; 66 hours at Fence L; 200 hours at Found L; 104 hours at Franklin L; 3 hours at Hunter L; 3 hours at Irving L; 324 hours at Kentuck L; 816 hours at Lac Vieux Desert; 204 hours at the Lake Laura Landing; 206 hours at Little Arbor Vitae; 211 hours at Little Crawling Stone; 9 hours at Little John L; 302 hours at Little St. Germain; 240 hours at Long L; 101 hours at Lost L; 206 hours at Muskellunge L; 209 hours at N Twin L; 1 hour at Pioneer L; 304 hours at the Plum Lake; 50 hours at Presque Isle L; 102 hours at the Razorback Lake; 234 hours at Rest L; 105 hours at Smoky L; 2 hours at Snipe L; 2 hours at S Twin L; 400 hours at the Star Lake; 4 hours at Trout L; 8 hours at Upper Buckatabon; 50 hours at Van Vliet L; 193 hours at White Sand L; 204 hours at Yellow Birch L

2015 Paid inspectors completed **6,572** hours: 211 hours at Anvil Lake; 402 hours at Ballard Lake; 259 hours at Big Arbor Vitae Lake; 195 at Big Muskellunge Lake; 250 at Big Portage Lake; 248 Big St Germain Lake; 212 Big Sand Lake; 200 Catfish Lake; 200 Deerskin Lake; 200 Eagle Lake; 204 Fence Lake; 210 Found Lake; 174 Gunlock Lake; 202 at High Lake; 307 at Kentuck Lake; 110 Lake Laura; 213 Little Arbor Vitae; 301 Little St Germain; 237 Long Lake; 200 Lost Lake; 200 Muskellunge; 200 North

Twin Lake; 295 Plum Lake; 202 Razorback Lake; 100 Smoky Lake; 400 Star Lake; 232 Trout Lake; 208 White Sand Lake; 200 Yellow Birch Lake

2016 Paid inspectors completed **7,017** hours: 204 hours at Anvil Lake; 400 hours at Ballard Lake; 254 hours at Big Arbor Vitae Lake; 208 at Big Muskellunge Lake; 251 at Big Portage Lake; 259 Big St Germain Lake; 203 Big Sand Lake; 201 Catfish Lake; 199 Deerskin Lake; 200 Eagle Lake; 203 Fence Lake; 236 Found Lake; 259 Gunlock Lake; 200 at High Lake; 384 at Kentuck Lake; 164 Lake Laura; 253 Little Arbor Vitae; 300 Little St Germain; 248 Long Lake; 203 Lost Lake; 199 Muskellunge; 204 North Twin Lake; 413 Plum Lake; 204 Razorback Lake; 100 Smoky Lake; 404 Star Lake; 256 Trout Lake; 207 White Sand Lake; 201 Yellow Birch Lake

WDNR AIS MANAGEMENT ASSISTANCE

Vilas County Land and Water Conservation offers assistance and creates cooperative partnerships to the mutual benefit of all parties.

- **Respond to Newly Discovered Populations** – When it comes to serving the public it is important to Vilas County that lake organizations receive help when they encounter a newly discovered population of invasive species in their lake. They are often in need of assistance and direction at this time to navigate this new situation. In some instances, these lake groups (if they even are a formalized lake association) have never encountered AIS before or grant assistance from the WDNR. Thus, the scope of work seems daunting to them at this time and they don't know where to begin. Not many new infestations pop up each, thankfully, but when they do, Vilas County begins to direct the group in AIS Management efforts. Outlined here are the newly infested areas that received Vilas County assistance:
 - 2013 Lost Lake – a new finding of Eurasian Watermilfoil
 - 2014 Brandy Lake – a new finding of Eurasian Watermilfoil AND no formal lake organization; Trout Lake spiny water flea response
 - 2015 Deerskin, Buckatabon, and Brandy L (continue) – Both Buckatabon and Brandy Lakes had no existing lake organization and were totally new to the AIS and lake organization process. Deerskin Lake association had been in existence, but was totally new to management of AIS.
- **Point-Intercept Aquatic Plant Surveys** – To satisfy a portion of the grant requirement, the County Conservation Specialist lent assistance to the local WDNR and UW-Trout Lake staff with various AIS-related field operations within the boundaries of Vilas County. This allowed the WDNR to schedule field surveys with fewer WDNR employees and accomplish the surveys in an efficient and timely manner. In 2013, a survey was completed on Forest L, and in 2014 Lost Lake had a point intercept survey completed. The WDNR recognized the expertise provided by the Conservation Specialist, especially in

aquatic macrophyte identification skills. Very few people have the thorough knowledge required for conducting these types of specialized surveys. For a County with a large lake fieldwork load and a tremendously short field season, professional manpower is essential and this was a huge time savings for our regional partners in the WDNR.

- **AIS Surveys** – Partner assistance during 2013 was provided to the regional WDNR in conducting AIS Early Detection surveys on Diamond, Johnson, Horsehead, and Birch Lakes. In the 2014 field season, Early Detection Survey assistance was provided on Little Crooked, Harris, Island, Sugar Maple, Plum, and Allequash Lakes. In addition Franklin Lake received Spiny waterflea survey. By county staff participation in these surveys, the WDNR gained flexibility in scheduling and much-needed manpower to accomplish data collection goals in a timely manner. Collection of this type of lake data, allows the county and the state to gather the information necessary to make sound and informed decisions during lake management and AIS management planning activities.

*Note: Starting in 2015, partner assistance time for AIS and Point Intercept Surveys was noted on a different WDNR grant that Vilas County had received.

(4) Support WDNR invasive species program developments

Decontamination Policy

AIS Coordinators around the state were requested to partake in the process of creating a decontamination policy that all were comfortable with. The Vilas County AIS Coordinator prepared for and was present at the 9 hour meeting that took place in Stevens Point on February 20, 2013.

State AIS Strategic Management Planning

Starting in 2014, the WDNR began a large collaboration regarding the revision of the statewide AIS Strategic Management Plan. A core team of state government professionals, university staff, local AIS partners and nonprofit representatives was formed to lead the update to the Wisconsin AIS Management Plan. The core team consisted of: 18 resource professionals from around the state. The Wisconsin Plan will fulfill the requirements of the National Invasive Species Act of 1996, and is intended to be used as a guiding framework for the implementation of prevention, AIS containment, and control activities on a statewide level.

Wisconsin AIS Coordinators met several times to discuss the process and an early draft comprised of several sections was distributed for edit reviews. Vilas County takes this process seriously and wanted to contribute to the successful outcome of the document. Appendix G shows two documents that the Vilas County AIS Coordinator submitted for consideration during this process:

- 1) Suggestion for Fishing Guide AIS Awareness requirement for consideration as a component of the statewide 2015 AIS Strategic Plan revision
- 2) Clean Boats, Clean Waters (CBCW) program suggestions for consideration as a component of the statewide 2015 AIS Strategic Plan revision

*NOTE: As of November of 2016, the WI AIS Management Plan was yet in draft format.

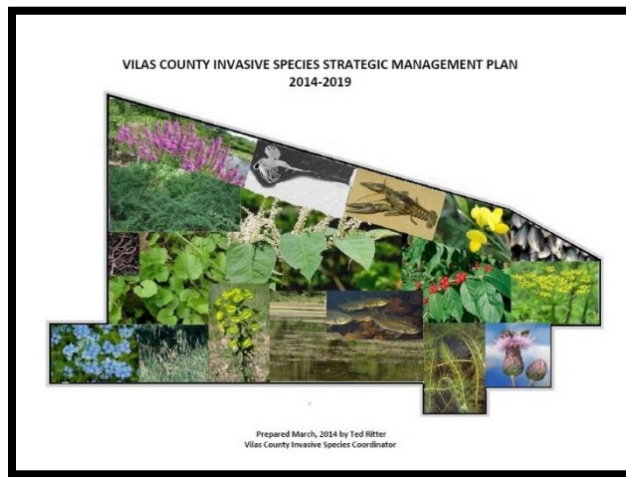
Vilas Invasive Species Strategic Management Planning & Annual Status Meetings –

From the onset of the Vilas County Invasive Species strategic planning project back in 2006, an annual gathering of all members of the Partnership and interested public has occurred. This tradition was carried out during the course of this grant project and continues even today.

The annual meeting provides all members a place to gather and discuss prior year accomplishments and current events related to aquatic invasive species management. It is also an excellent venue to meet with area natural resource managers to gain their positive (or negative) feedback about current happenings. During the annual meeting process the Invasive Species Coordinator gathers information and feedback on local projects throughout the county. Following each annual meeting, adjustments to the AIS Partnership strategic plan are then made as needed. Appendix H contains annual meeting agendas for years 2014 – 2016.

The 2013 Vilas County AIS Partnership –

No annual meeting took place, but instead, a considerable amount of effort went into an update and revision of the Vilas County strategic management plan, shown at right – Objective 1= County Coordinator stays abreast of AIS matters; Objective 2 = Coordinator develops strategies to keep the Public Informed of AIS matters; Objective 3 = Coordinator employs methods to prevent the spread of AIS; Objective 4 = Coordinator encourages activities that can detect AIS populations early; Objective 5 = Provides assistance to lake orgs, town lake committees, individual riparian property owners, and others to management existing AIS populations; Objective 6 = Builds partnerships countywide and sustainability methods to keep efforts and information sharing going strong; Objective 7 = Keep up on necessary revisions to the strategy plan



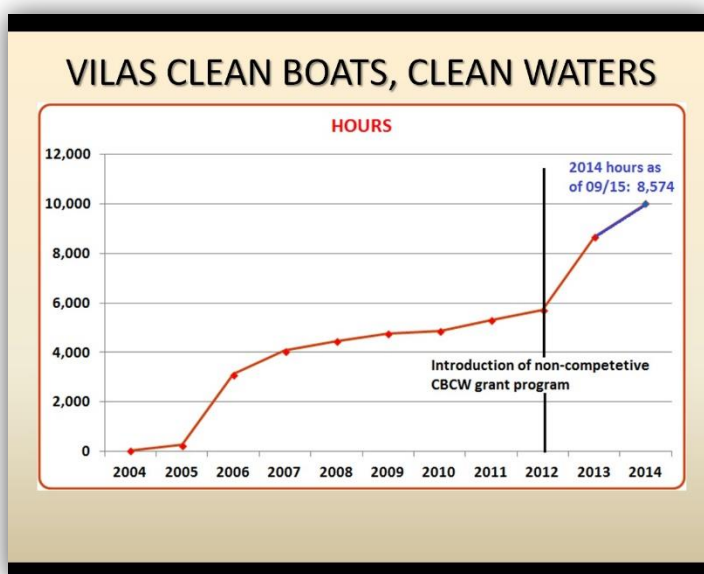
The Strategic Plan in its entirety is available on the CD provided with this report.

At the annual meeting in 2012, it became very clear by Vilas County Partnership consensus that boater education and boat inspections will remain the best defense against AIS encroachment well into the future. However, volunteerism was no longer a viable means of sustaining the program. A new funding source and a source for hired help was needed to keep the program functioning. As a result of those responses, two significant developments to support the CBCW program were developed:

1. A new streamlined CBCW program was developed by WDNR Northern Region staff making easy access to non-competitive funds to support hiring CBCW personnel.
2. A program previously introduced on a small scale by the AIS Coordinator was

greatly expanded enabling many CBCW program sponsors (grant recipients) to utilize college students for paid CBCW services via a program coordinated with UW Oshkosh.

These two enhancements were introduced during 2012 and resulted in nearly 6,500 hours of paid CBCW presence at Vilas County boat landings during the summer of 2013!



The 2014 Vilas County AIS Partnership annual meeting was held at the Boulder Junction Community Center on the afternoon of September 25, 2014. The meeting focused on reviewing the county and partnership’s activities over the years and was entitled: “A decade of progress through Creative Partnering and Hard Work!” Almost 50 members of the Vilas County AIS Partnership attended the meeting. It was impressive to hear how much work had been accomplished during those years and for the partners, it created a sense of accomplishment and excitement to continue this important work. It was also announced that Ted Ritter was retiring.

The 2015 Vilas County AIS Partnership annual meeting was held at the Boulder Junction Community Center on the afternoon of November 12, 2015. If they hadn’t already done so, members of the AIS Partnership were able to meet Cathy Higley, the newest member of the Vilas County Land & Water Conservation Department staff, and Ted’s replacement. Cathy did a powerpoint presentation for the participants and the meeting agenda included: 1) a review of CBCW efforts; 2) past,

present, future of AIS Control and AIS Grants; 3) feedback discussion from the partners; and 4) a review of the current County AIS strategic Plan; and solicitation of partner input.

The 2016 Vilas County AIS Partnership annual meeting was held at the Boulder Junction town hall on the afternoon of October 18, 2016. A review of AIS priority species was discussed at this meeting and 48 persons were in attendance. Open for discussion were the following topics: New AIS finds in Vilas County, there's an app for that (CBCW), an update of the EWM weevil study at Trout Lake and the new "Healthy Lakes" program. Later in the afternoon, there was work time allotted to anyone who wished to begin their CBCW grant application or discuss any lake management grant project.

These are valuable meetings that will continue in Vilas County.

(5) Management of invasive species; Maps of current lakes with AIS will be updated

Invasive Species Mapping – One of the first steps in invasive species management and control efforts is to stay current as to the locations and species known at each site (lake). The Vilas County Mapping Department prepared the maps from database information compiled by the Invasive Species Coordinator. Lakes containing priority aquatic invasive species are highlighted in the updated map located in Appendix L. Spiny Water Flea, Curly-Leaf Pondweed, and Eurasian water-milfoil.

Promote Wetland Invasive Plant Management –



Yellow Iris - In the summer of 2013, Yellow Iris was discovered in several areas along the shoreline of the Eagle River Chain of lakes. Yellow Iris, a beautiful yet invasive wetland plant was mapped by Chain volunteers and this effort was coordinated by the Vilas County Coordinator. The volunteers spent time on the chain and logged GPS points where it was observed. Once this step was complete, Vilas County created a map of all areas logged in 2014. The

same map was updated in early 2016, and each is displayed in Appendix I.

Efforts to pull and cut the known plants were then coordinated through Vilas County and a citizen volunteer from the Eagle River Chain of Lakes Association (ERCLA). Not much is known about how to eradicate this plant, but lessons learned from Florida biologists were taken into consideration. The method selected here was to cut the plants so that flowers could not go to seed and spread. One important note to share is

that the slimy residue that this plant emits when the rhizome is cut, is toxic. Therefore, when handling the plants, volunteers wore gloves to protect themselves.

Phragmites – Another wetland plant of concern discovered in Vilas County was Phragmites. Non-native Phragmites is a prohibited species in Vilas County and management of the fairly small patches that have been identified will be managed by WDNR or privately through 2016. Sites that were visited by Vilas County staff persons were at the following locations: Boot L, Big Portage Lake, Several in Manitowish Waters, and Crab L.

Yellow Garden Loosestrife & Purple Loosestrife – Purple Loosestrife has been present in Vilas County for many years and has been documented by mapping exercises throughout those years. Vilas County has conducted a Purple Loosestrife beetle rearing program in partnership with the Northland Pines biology classes and that program will be discussed further in the next section of this report.



Yellow Loosestrife is new on the wetland invasive scene in Wisconsin and indeed, in Vilas County. Appendix J shows a 2016 map of areas on Cranberry Lake with this species present. As the pictures here show, it is a beautiful and showy plant (as is its relative purple loosestrife). Because of the impressive showy potential, it is sold as an ornamental garden plant. In wet areas the plant thrives and the rhizomes can spread rather quickly, outcompeting the native wetland plants.

At this time since not much is known about the management of Yellow Loosestrife. Under investigation are methods to manage the spread of this species. Herbicide methods are considered, but they are complicated by the fact that the plant spreads by rhizome, and it typically inhabits very sensitive wetland environments that could be affected by the herbicide as well.

With the help of volunteers, Vilas County staff will continue to monitor the presence of this species and try to control its spread as part of our wetland management strategy.

Purple Loosestrife Beetle Rearing & Education Project –The presence of purple loosestrife (PL), an invasive shoreline / wetland plant, had become a species of increasing concern in parts of the county. While an aggressive biological control program was launched a few years ago in western areas of the county, no such effort was underway in the Eagle River area where PL was found during the summer of 2011 in over 125 locations. Mapping of PL locations revealed some areas of very high density PL plants around three Eagle River area lakes and in several scattered off-lake locations. Plans were developed by the County Invasive Species Coordinator to rear and release approximately 50,000 *Galerucella* beetles during the summer of 2012, and this project continues today.



The AIS Coordinators have partnered with high school students from Northland Pines to dig PL plants, set up rearing nets, collect the adult beetles and release them on known PL populations throughout the county. A considerable amount of planning, time and effort goes into this effort each year.

Appendix K is a map showing the 2016 release sites. Shown here is a small group of high school students conducting some Earth Day community service by assisting the AIS Coordinator with the PL Beetle Rearing project.



In addition to the fieldwork portion of this project, educational presentations are given each year at the high school about general invasive species, and proper management of them in our communities.

(6) ***Remain current in invasive species information and developments***

The AIS Coordinator was a frequent participant at state, regional, and local meetings. These were and still are crucial meetings to learn the most recent statewide activity and species information surrounding AIS management. Vilas County staff frequent the annual WI Lakes Conference each year as well. We find that this is the best venue to stay current and network with other professionals throughout Wisconsin.

The world of natural resource conservation, management, and policy is a dynamic force and ever-changing. Employees of the Vilas County Land and Water Conservation Department believe that in order to serve our citizen lake groups and other members of the public to the best of our ability, we need to be kept abreast of the most current news and information in our field. If our staff has the opportunity to grow professionally, or to share their expertise with others through workshops or presentations, they take it (within budgetary reason). Over the course of the grant project, the Invasive Species Coordinator and the Conservation Specialist attended several professional conferences or webcasts aimed at sharing ideas and perspectives on invasive species management.

Overall Project Impacts

AIS management activities are an important priority outlined as a goal within the current Land and Water Resource Management plan. The Vilas County AIS Partnership, funded through this AIS Education, Prevention, and Planning project has been, and continues to be, one of the most important conservation programs in the county. The Vilas County Board of Supervisors recognize that the quality of the lakes in our region have significant importance because they are directly tied to the tourism economy. Additionally, waterfront property represents approximately 77% of the county-wide property tax base. Therefore, aquatic invasive species management activities and coordination efforts have become central to sustaining the tourism base economy of our area. The level of public awareness and public input generated through the AIS Partnership and town lakes committees continue to thrive today.

- * AIS Programming Momentum sustained
- * AIS / TIS awareness remains high
- * Proactive lake management efforts resulted where none had existed before
- * Local resource available for citizens to stop by the office and ask a quick question
- * Mutual benefit in the ability to reach annual management goals in both County and State regional management efforts
- * Coordination of effort and partnerships with regional WDNR staff allowed efficient use of staff time and resources

All of the efforts put into this project will have lasting benefits for the lakes and other water resources in Vilas County for generations to come. We appreciate the cooperative efforts that the county and state can enjoy and the grant funding that allows us to accomplish our mutual objectives.

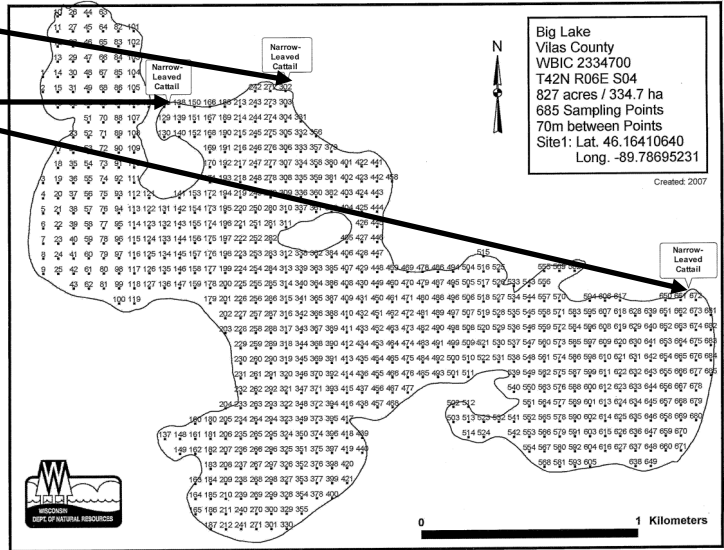
APPENDICES

Appendix A

Narrow-leaf Cattail Flyer

The Good News....

Whitewater and Associates located 3 sites of narrow-leaved cattails on Big Lake. The infestation does seem to be minimal at this point (July 2015).



Narrow-leaved cattail found on Big Lake

Monitoring of any existing stands of narrow-leaved cattails may be advisable to see if/how the stands spread. The Lake Association may want to consider incorporating this species into their AIS monitoring efforts.

If in the case the narrow-leaved cattail stands do start to spread, consider some kind of control before the stands get too large. See the DNR recommendations for management at <http://dnr.wi.gov/topic/Invasives/fact/NarrowLeavedCattail.html>. Make sure you also check for any necessary DNR permits before hand.



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www.vilasconservation.org

Narrow-Leaved Cattail in Big Lake, Vilas County , WI

Boulder Junction/Presque Isle Area

During the 2013 Point-Intercept Surveys performed by Whitewater and Associates, narrow-leaved cattail was found on Big Lake and has been reportedly verified by the Freckmann Herbarium.

Narrow-leaved cattail is an invasive species in WI. NR40 lists it as Restricted. This means you cannot transport, transfer, or introduce this species. However, you are not required to remove it if it is on your land (possession is allowed.)

Narrow-leaved cattail hails from Eurasia. It can spread rapidly, forming a dense monoculture, degrading species diversity. It spreads via either seed or vegetatively through its rhizomes.



Narrow-leaved cattail, *Typha angustifolia* is identified most easily by the seed heads. There is at least a 0.5-4 inch gap between the male and female part of the flower.

And just to keep you guessing, the native broad-leaved cattails and invasive narrow-leaved cattails will hybridize with each other, creating a cattail that has a smaller gap between the male and female flowers (0-2").



The native broad-leaved cattail *Typha latifolia* does not have a gap between the male and female parts of its flower. This photo was taken at Big Lake on 7/24/15.

Appendix B

2,4 D Fisheries Research Flyer

Effects of 2, 4-D Herbicide Treatments Used to Control Eurasian Watermilfoil on Fish and Zooplankton in Northern Wisconsin Lakes

Eurasian watermilfoil *Myriophyllum spicatum* (EWM) is one of the most problematic aquatic invasive species in North America because it can outcompete native aquatic plants, negatively affect fish and wildlife, and interferes with recreational activities. Application of herbicides is commonly used to control or eradicate EWM. Specifically, 2, 4-Dichlorophenoxyacetic acid (2, 4-D) based herbicides are widely used for controlling EWM in Wisconsin and other states. The potential effects of herbicide application on economically-important sportfish and other native fish and aquatic species is an important concern for natural resource agencies and the public, especially in northern Wisconsin, where recreational fishing is an important component of the regional economy. The objectives of our study are to determine if 2, 4-D herbicide treatments used to control EWM affect abundance, diversity, growth, and survival of juvenile fish and zooplankton.

Sampling of fish and zooplankton will be conducted on 6 northern Wisconsin lakes over a 3-year period beginning in 2015. Three lakes are projected to receive whole-lake treatments of 2, 4-D herbicide in 2016. These lakes include Kathan and Manson lakes in Oneida County and Silver Lake in Vilas County. The remaining three lakes will be considered as reference systems (i.e., no herbicide treatment scheduled in 2016 and 2017). These lakes include Upper Gresham and **Brandy Lakes** in Vilas County and Little Bearskin Lake in Oneida County. Sampling will continue on all lakes in 2017, which will provide a 3-year data series for all lakes encompassing the year before herbicide treatments, the year of treatments, and the year following treatments. We will monitor changes in plant, fish, and zooplankton communities in each lake with a primary focus on larval and juvenile fish of several species. **An informational meeting open to the public will be held locally in early 2016.** If you have any questions about this project, please contact Daniel Isermann with the University of Wisconsin-Stevens Point at (715) 346-3221 or at dan.isermann@uwsp.edu.

Effects of 2, 4-D Herbicide Treatments Used to Control Eurasian Watermilfoil on Fish and Zooplankton in Northern Wisconsin Lakes

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Appendix C

Ice Fishing AIS Brochure

Appendix D

Letters of Support



Vilas County Land & Water Conservation

330 Court Street • Eagle River, WI 5452

715-479-3747 • Fax: 715-479-19781 • <http://www.vilasconservationr.org>

Mr. Kevin Gauthier
Water Resources Management Specialist
Wisconsin Dept. of Natural Resources
8770 Hwy J
Woodruff, WI 54568

February 27, 2013

Dear Mr. Gauthier:

This letter pertains to the AIS Rapid Response grant application being submitted by the Kentuck Lake Protection & Rehabilitation District for initial EWM control on Kentuck Lake.

I have reviewed and understand the project proposal prepared by Onterra. This office is prepared to provide whatever assistance is appropriate as the project unfolds. Guidance has already been given regarding compliance with NR107 public notice requirements prior to proposed herbicide applications.

This project meshes well with the goals of the Vilas County AIS Partnership and several aspects of the 2009-2013 Vilas County Land and Water Resource Management Plan. The project supports the objectives to:

- Protect and enhance Vilas County's lakes, rivers, and other natural resources
- Prevent the further spread of exotic species and aid local groups in control efforts for known infestations
- Make natural resource information more readily available to the public

On behalf of the Vilas County Land & Water Conservation Department and the greater Vilas County Invasive Species Partnership, I encourage State support of the Kentuck Lake District 2013 Rapid Response grant application.

Sincerely,

Ted Ritter

Vilas County Invasive Species Coordinator



Vilas County Land & Water Conservation

330 Court Street • Eagle River, WI 5452

715-479-3747 • Fax: 715-479-19781 • <http://www.vilasconservationr.org>

Mr. Kevin Gauthier
Water Resources Management Specialist
Wisconsin Dept. of Natural Resources
8770 Hwy J
Woodruff, WI 54568

January 29, 2014

Dear Mr. Gauthier:

This letter pertains to the Little Saint Germain Lake Protection & Rehabilitation District AIS Control and Prevention Project, 2014-2018.

The sponsor has obtained funding under grant CBCW-095-14 for the purpose of hiring watercraft inspectors to provide 300 hours of CBCW services during the summer of 2014. Those services will be provided through a program coordinated by the Vilas County Land & Water Conservation Department. Training of volunteers who may wish to provide CBCW services will also be available from this office. We are also committed to providing whatever additional assistance may be appropriate as the project unfolds.

This project meshes well with the goals of the Vilas County AIS Partnership and several aspects of the Vilas County Land and Water Resource Management Plan. The project supports the objectives to:

- Protect and enhance Vilas County's lakes, rivers, and other natural resources
- Prevent the further spread of exotic species and aid local groups in control efforts for known infestations
- Make natural resource information more readily available to the public

On behalf of the Vilas County Land & Water Conservation Department and the greater Vilas County Invasive Species Partnership, I encourage State support of the Little Saint Germain Lake Protection & Rehabilitation District AIS Control and Prevention Project, 2014-2018 grant application

Sincerely,

Ted Ritter

Vilas County Invasive Species Coordinator



Vilas County Land & Water Conservation

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Mr. Kevin Gauthier
Water Resources Management Specialist
Wisconsin Dept. of Natural Resources
8770 Hwy J
Woodruff, WI 54568

August 1, 2013

Dear Mr. Gauthier:

This letter is in regard to the AIS Established Population Control grant application being submitted by the Unified Lower Eagle River Chain of Lakes Commission in the August 2013 grant cycle.

Progress since 2008 managing Eurasian watermilfoil on the chain has been impressive. Considering the popularity of the chain as a boating destination by seasonal visitors to the area as well as many local boaters, it seems continued management of invasive plants throughout the system is imperative.

As has been true for many years, this office stands ready to continue assisting both the Unified Lower Eagle River Chain of Lakes Commission and the Eagle River Chain of Lakes Association in their AIS prevention and management efforts.

This project meshes well with the long-term Vilas County AIS Partnership strategic plan as well as with the Vilas County Land and Water Resource Management Plan, goal #2: *To protect aquatic and terrestrial ecosystems from non-native invasive species.*

On behalf of the Vilas County Land & Water Conservation Department and the greater Vilas County Invasive Species Partnership, I strongly encourage State support of the Commission's 2013 grant application.

Sincerely,

Ted Ritter

Vilas County Invasive Species Coordinator



Vilas County Land & Water Conservation

330 Court Street • Eagle River, WI 54521

715-479-3747 • <http://www.vilasconservation.org>

Mr. Kevin Gauthier
Water Resources Management Specialist
Wisconsin Dept. of Natural Resources
8770 Hwy J
Woodruff, WI 54568

February 3, 2014

Dear Mr. Gauthier:

This letter pertains to the Manitowish Chain of Lakes AIS-EDR Project – Phase III grant application being submitted by the North Lakeland Discovery Center for control of Curly-leaf pondweed.

I have reviewed the project proposal prepared by Onterra. I thoroughly understand the limitations of volunteers to effectively control aggressive aquatic vegetation such as curly-leaf pondweed by underwater hand pulling efforts. I fully support the use of professional services to augment the efforts of volunteers.

Although this phase of the project does not appear to include any specific activities for which this office can lend assistance, we stand by to provide whatever help might be appropriate as the project unfolds.

This project meshes well with the goals of the Vilas County AIS Partnership and several aspects of the Vilas County Land and Water Resource Management Plan. The project supports the objectives to:

- Protect and enhance Vilas County's lakes, rivers, and other natural resources
- Prevent the further spread of exotic species and aid local groups in control efforts for known infestations
- Make natural resource information more readily available to the public

On behalf of the Vilas County Land & Water Conservation Department and the greater Vilas County Invasive Species Partnership, I encourage State support of the North Lakeland Discovery Center 2014 grant application.

Sincerely,

Ted Ritter

Vilas County Invasive Species Coordinator



Vilas County Land & Water Conservation

330 Court Street • Eagle River, WI 54521

715-479-3747 • <http://www.vilasconservation.org>

Mr. Kevin Gauthier
Water Resources Management Specialist
Wisconsin Dept. of Natural Resources
8770 Hwy J
Woodruff, WI 54568

February 25, 2014

Dear Mr. Gauthier:

This letter pertains to the Lost Lake AIS-EDR Project (2013-2015) – Phase I grant application being submitted by the Lost Lake Protection & Rehabilitation District for control of Eurasian watermilfoil.

I have reviewed the project proposal prepared by Onterra. I thoroughly understand the limitations of volunteers to effectively control aggressive aquatic vegetation such as Eurasian watermilfoil by underwater hand pulling efforts. I fully support the use of professional services.

The Lost Lake District worked with this office to provide 100 hours of paid watercraft inspection / boater education services at its boat landing in 2013 and is doing so again in 2014. Although this phase of the proposed EDR funded project does not appear to include any additional activities for which this office can lend assistance, we stand by to provide whatever help might be appropriate as the project unfolds.

This project meshes well with the goals of the Vilas County AIS Partnership and several aspects of the Vilas County Land and Water Resource Management Plan. The project supports the objectives to:

- Protect and enhance Vilas County's lakes, rivers, and other natural resources
- Prevent the further spread of exotic species and aid local groups in control efforts for known infestations
- Make natural resource information more readily available to the public

On behalf of the Vilas County Land & Water Conservation Department and the greater Vilas County Invasive Species Partnership, I encourage State support of the Lost Lake Protection & Rehabilitation District 2014 grant application.

Sincerely,

Ted Ritter

Vilas County Invasive Species Coordinator



Vilas County Land & Water Conservation

330 Court Street • Eagle River, WI 5452

715-479-3747 • Fax: 715-479-19781 • <http://www.vilasconservationr.org>

Mr. Kevin Gauthier
Water Resources Management Specialist
Wisconsin Dept. of Natural Resources
8770 Hwy J
Woodruff, WI 54568

February 27, 2013

Dear Mr. Gauthier:

This letter pertains to the Manitowish Chain of Lakes EDR Project – Phase II grant application being submitted by the North Lakeland Discovery Center for control of Curly-leaf pondweed.

I have reviewed and understand the project proposal prepared by Onterra. The challenges of managing CLP within Rice Creek are not insignificant. However, failure to contain the Rice Creek population will very likely result in further spreading of CLP into the pristine downstream lakes of the Manitowish Chain. This office is prepared to provide whatever assistance is appropriate as the project unfolds.

This project meshes well with the goals of the Vilas County AIS Partnership and several aspects of the 2009-2013 Vilas County Land and Water Resource Management Plan. The project supports the objectives to:

- Protect and enhance Vilas County's lakes, rivers, and other natural resources
- Prevent the further spread of exotic species and aid local groups in control efforts for known infestations
- Make natural resource information more readily available to the public

On behalf of the Vilas County Land & Water Conservation Department and the greater Vilas County Invasive Species Partnership, I encourage State support of the North Lakeland Discovery Center 2013 grant application.

Sincerely,

Ted Ritter

Vilas County Invasive Species Coordinator



Vilas County Land & Water Conservation

330 Court Street • Eagle River, WI 5452

715-479-3747 • Fax: 715-479-19781 • <http://www.vilasconservationr.org>

Mr. Kevin Gauthier
Water Resources Management Specialist
Wisconsin Dept. of Natural Resources
8770 Hwy J
Woodruff, WI 54568

January 29, 2014

Dear Mr. Gauthier:

This letter pertains to the North and South Twin Lakes Riparian Association 2014 – 2015 AIS Control and Prevention project grant application.

As indicated in the project proposal, the sponsor has obtained funding under grant CBCW-073-14 for the purpose of hiring watercraft inspectors to provide 200 hours of CBCW services at the North Twin landing off Highway 17 during the summer of 2014. Those services will be provided through a program coordinated by the Vilas County Land & Water Conservation Department. Training of volunteers who may wish to provide CBCW services will also be available from this office. We are also committed to providing whatever additional assistance may be appropriate as the project unfolds.

This project meshes well with the goals of the Vilas County AIS Partnership and several aspects of the Vilas County Land and Water Resource Management Plan. The project supports the objectives to:

- Protect and enhance Vilas County's lakes, rivers, and other natural resources
- Prevent the further spread of exotic species and aid local groups in control efforts for known infestations
- Make natural resource information more readily available to the public

On behalf of the Vilas County Land & Water Conservation Department and the greater Vilas County Invasive Species Partnership, I encourage State support of the North and South Twin Lakes Riparian Association 2014 – 2015 AIS Control and Prevention project grant application

Sincerely,

Ted Ritter

Vilas County Invasive Species Coordinator

Appendix E

Plan for AIS Bridge Snapshot Day

2014 AIS Bridge Snapshot Day/Vilas County/Wisconsin River

Bridge crossing survey points:

1. Hwy 45 wayside/river crossing south of Land O' Lakes (18 miles north of Eagle River)
46.140934, -89.205894
2. Rummels Road, Conover (4.9 miles south of survey point 1)
46.091003, -89.263297
3. County Highway K, Conover (4.3 miles south of survey point 2)
46.047531, -89.265569
4. County Highway G, Eagle River (8.2 miles south of survey point 3)
45.942131, -89.261883

All of these crossings offer easy walking access to the river and good vehicle parking:

Points 1 and 4 have public boat landings in very close proximity to the bridges.

Points 2 and 3 have snowmobile trail bridge crossings parallel to the road bridges.

Survey point 1 will serve as the rendezvous point. The wayside has picnic tables we can gather around to discuss the survey protocols before starting the surveys. Restrooms are also available on site.

Two teams of 2 to 4 people each (4-8 people total) will conduct the following in stream surveys:

Team 1 surveys sites 1 and 3

Team 2 surveys sites 2 and 4

Hip waders (preferably chest waders) are necessary.

Appendix F

CB/CW Intern Script

Appendix G

Documents for State Strategic Planning

**Suggestion for Fishing Guide AIS Awareness requirement for consideration
as a component of the statewide 2015 AIS Strategic Plan revision**

A common complaint I hear from CBCW service providers in Vilas County is that fishing guides are generally not on board with AIS laws. More than any other category of boaters, it's guides who demonstrate poor attitudes about the presence of CBCW educators at landings and general disrespect for the AIS program. Certainly not all guides deserve this criticism, but many clearly do.

I have frequently witnessed the relationship that typically develops between a "newby" angler and a fishing guide. After paying hundreds of dollars per day for guide services, the client's respect for the guide's wisdom on all topics is indisputable. No one knows more about anything than a high price guide. Clients hold their guides in such high esteem that they vigorously defend and emulate every action and attitude demonstrated by the wizardly guide.

The procedure for obtaining an annual WI Resident Guide License enabling one to charge guiding fees for hunting, fishing or trapping is referenced in WI Statute 29.512(1) and involves nothing more than completing a very simple application form (enclosed) and submitting it with a \$40 payment. The objective of the licensing requirement appears to be nothing more than a source of revenue. There are no requirements whatsoever for applicants to have any natural resource knowledge or ethics.

I once attempted to obtain from the WDNR a list of WI licensed guides. I was told the information I was requesting is proprietary and cannot be released. Therefore I have no idea how many licensed guides there are in WI or where they are located, but I have concluded they are far more common in the northern counties than elsewhere in the state. I suspect they may also be present in the vicinity of the Winnebago lake pool.

I suggest the WDNR licensing requirement for guides be changed to require that license applicants provide proof of having attended a credible invasive species training program within a prescribed period (perhaps two years) of applying for a license. The trainings would be conducted throughout the state, as needed, by WDNR staff and/or regional non-WDNR personnel (i.e. County AIS Coordinators). License applicants would provide a form signed by a certified trainer confirming the date the applicant attended a training program.

Training objectives would include:

1. Providing a basic understand of aquatic and terrestrial invasive species concerns as they relate to fishing, hunting and trapping activities
2. Providing a more thorough understanding of local invasive species priorities
3. Obtaining a commitment from guides to:
 - a. Discuss with their clients the topic of invasive species (educate them)
 - b. Demonstrate to their clients, through their actions, the responsibility of everyone to comply with invasive species laws

The intent of this suggestion is to help convert uninformed and opinionated guides from being part of the problem to part of the solution.

Submitted by Ted Ritter, Vilas County

January, 2015

Clean Boats, Clean Waters (CBCW) program suggestions for consideration as a component of the statewide 2015 AIS Strategic Plan revision

The following CBCW program suggestions are based on the assumed validity of the following resolution:

Whereas one of the priorities of the AIS Strategic Plan is to slow the spread of AIS through public education; and

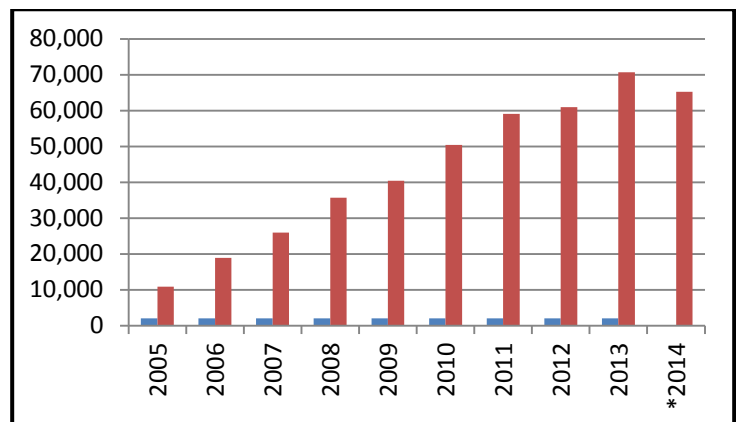
Whereas transient boaters are the highest priority audience for receiving educational messages regarding how to slow the spread of AIS; and

Whereas the most effective location for reaching transient boaters with educational messages is at public boat landings,

Therefore be it resolved that the CBCW program shall be utilized statewide as the priority method for delivering consistent AIS educational messages beyond what signage or other methods can accomplish.

Understanding growth of the WI CBCW program over the past ten years is important when considering its future:

Year	Boats observed	Boaters contacted	Hours at landings
2005	30,240	62,253	10,828
2006	36,685	82,194	18,888
2007	39,821	78,232	25,991
2008	57,664	121,540	35,682
2009	63,950	135,714	40,385
2010	86,389	185,945	50,402
2011	106,025	228,348	59,028
2012	110,144	232,872	60,971
2013	116,189	252,359	70,675
2014	*111,440	*226,468	*65,195
*2014 data not complete			



CBCW statewide hours

* 2014 data not complete

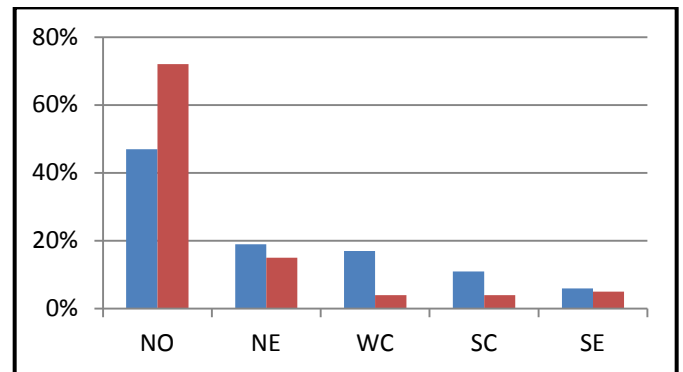
It was believed when the program was conceived that it could be sustained with volunteers providing CBCW services. In truth, volunteerism was initially strong in only some areas of the state (particularly in the Northern Region), but has been diminishing steadily in recent years. 2014 CBCW data extracted from SWIMS in early November reveals:

1. **Statewide:** 12,487 records reflecting 63,747 CBCW hours
 - a. 83 % of hours were paid
 - b. 17% of hours were volunteer
2. **Vilas County:** 2,075 records (16.6% of statewide data) reflecting 9,834 CBCW hours (15.4% of statewide hours)
 - a. 89% of hours were paid
 - b. 11% of hours were volunteer

SUGGESTION #1: The revised AIS strategic plan should no longer refer to the CBCW program as a citizen volunteer initiative.

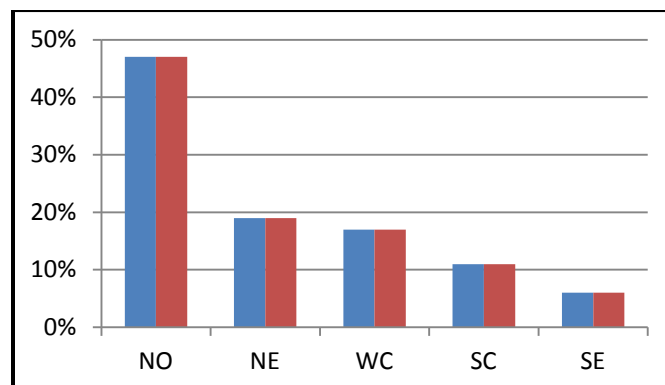
While the overall program has grown steadily, growth has not been consistent statewide. Jennifer Filbert recently generated a SWIMS report identifying all boat landings statewide and corresponding CBCW hours per landing for 2014 (as of early November). The results are summarized by region below:

Region	Landings	% of state-wide landings	CBCW Hours	% of state-wide CBCW hours
NO	1,626	47%	44,222	72%
NE	642	19%	9,371	15%
WC	603	17%	2,272	4%
SC	365	11%	2,772	4%
SE	212	6%	3,075	5%
TOTALS	3,448	100%	61,712	100%



Percent of total statewide landings
Percent of total statewide 2014 CBCW hours

The Northern region accounts for 47% of statewide landings, but that region reported 72% of the 2014 statewide CBCW hours. Shouldn't CBCW regional participation look more like the following chart?



Please consider the following:

1. Approximately 90% of the statewide CBCW effort is now provided by paid staff.
2. AIS grant funding provides support for most CBCW paid staff.
3. AIS grant funding provides support for regional AIS Coordinator positions.

SUGGESTION #2: The revised AIS strategic plan should:

1. Establish statewide CBCW goals for each county/region based on numbers of improved boat landings in each county/region.
2. Use AIS Coordinator grant deliverables as a tool for holding AIS Coordinators responsible for achieving county/regional CBCW goals.

Example: Minimum expected CBCW hours per county/region based on numbers of landings per county and a statewide CBCW goal of 100,000 hours might look as follows:

Future					
County	Region	# total landings	% total landings	Minimum expected CBCW hours	% total CBCW hours
Adams	WC	40	1.2%	1,160	1.2%
Ashland	NO	38	1.1%	1,102	1.1%
Barron	NO	107	3.1%	3,103	3.1%
Bayfield	NO	86	2.5%	2,494	2.5%
Brown	NE	13	0.4%	377	0.4%
Buffalo	WC	24	0.7%	696	0.7%
Burnett	NO	93	2.7%	2,697	2.7%
Calumet	NE	11	0.3%	319	0.3%
Chippewa	WC	67	1.9%	1,943	1.9%
Clark	WC	12	0.3%	348	0.3%
Columbia	SC	47	1.4%	1,363	1.4%
Crawford	WC	23	0.7%	667	0.7%
Dane	SC	58	1.7%	1,682	1.7%
Dodge	SC	48	1.4%	1,392	1.4%
Door	NE	32	0.9%	928	0.9%
Douglas	NO	58	1.7%	1,682	1.7%
Dunn	WC	31	0.9%	899	0.9%
Eau Claire	WC	18	0.5%	522	0.5%
Florence	NO	59	1.7%	1,711	1.7%
Fond du Lac	NE	16	0.5%	464	0.5%
Forest	NO	74	2.1%	2,146	2.1%
Green	SC	39	1.1%	1,131	1.1%
Green Lake	NE	39	1.1%	1,131	1.1%
Iowa	SC	15	0.4%	435	0.4%
Iron	NO	58	1.7%	1,682	1.7%
Jackson	WC	23	0.7%	667	0.7%
Jefferson	SC	48	1.4%	1,392	1.4%
Juneau	WC	128	3.7%	3,712	3.7%

Region	% statewide landings	Minimum expected CBCW hours
NO	47%	47,000
NE	19%	19,000
WC	17%	17,000
SC	11%	11,000
SE	6%	6,000
		100,000

Kenosha	SE	34	1.0%	986	1.0%
Kewaunee	NE	12	0.3%	348	0.3%
La Crosse	WC	30	0.9%	870	0.9%
Lafayette	SC	15	0.4%	435	0.4%
Langlade	NO	101	2.9%	2,929	2.9%
Lincoln	NO	93	2.7%	2,697	2.7%
Manitowoc	NE	30	0.9%	870	0.9%
Marathon	WC	49	1.4%	1,421	1.4%
Marinette	NE	112	3.2%	3,248	3.2%
Marquette	NE	34	1.0%	986	1.0%
Menominee	NE	3	0.1%	87	0.1%
Milwaukee	SE	5	0.1%	145	0.1%
Monroe	WC	7	0.2%	203	0.2%
Oconto	NE	101	2.9%	2,929	2.9%
Oneida	NO	172	5.0%	4,988	5.0%
Outagamie	NE	9	0.3%	261	0.3%
Ozaukee	SE	7	0.2%	203	0.2%
Pepin	WC	9	0.3%	261	0.3%
Pierce	WC	9	0.3%	261	0.3%
Polk	NO	96	2.8%	2,784	2.8%
Portage	WC	41	1.2%	1,189	1.2%
Price	NO	81	2.3%	2,349	2.3%
Racine	SE	25	0.7%	725	0.7%
Richland	SC	10	0.3%	290	0.3%
Rock	SC	35	1.0%	1,015	1.0%
Rusk	NO	47	1.4%	1,363	1.4%
Saint Croix	WC	34	1.0%	986	1.0%
Sauk	SC	50	1.5%	1,450	1.5%
Sawyer	NO	81	2.3%	2,349	2.3%
Shawano	NE	54	1.6%	1,566	1.6%
Sheboygan	SE	21	0.6%	609	0.6%
Taylor	NO	33	1.0%	957	1.0%
Trempealeau	WC	14	0.4%	406	0.4%
Vernon	WC	28	0.8%	812	0.8%
Vilas	NO	225	6.5%	6,526	6.5%
Walworth	SE	44	1.3%	1,276	1.3%
Washburn	NO	124	3.6%	3,596	3.6%
Washington	SE	23	0.7%	667	0.7%
Waukesha	SE	53	1.5%	1,537	1.5%
Waupaca	NE	76	2.2%	2,204	2.2%
Waushara	NE	55	1.6%	1,595	1.6%
Winnebago	NE	45	1.3%	1,305	1.3%
Wood	WC	16	0.5%	464	0.5%
		3448	100%	100,000	100.0%

Note: This proposal is based on the false assumption that all boat landings are suitable locations to deliver AIS prevention messages. The above numbers and percentages will adjust more realistically when only landings suitable for CBCW activities are selected.

Submitted by Ted Ritter, Vilas County
November, 2014

Appendix H

AIS Partnership Meeting Agendas



Vilas County Land & Water Conservation

330 Court Street • Eagle River, WI 5452

715-479-3747 • Fax: 715-479-19781 • www.vilaslandandwater.org

For Immediate Release: August 27, 2014

Contact:

Ted Ritter, (715) 479-3738

Vilas County Invasive Species Coordinator

Vilas County's Aquatic Invasive Species (AIS) Partnership launched in late 2004 is nearing the end of its 10th year. Partners will gather to review their efforts, successes, disappointments and expectations for the future on Thursday, September 25th from 12:45 – 4:00pm at the Boulder Junction Community Center on Highway M.

The Vilas County AIS Partnership was initiated with WI Department of Natural Resources (WDNR) funding as a three year pilot project to determine if coordination of state AIS programs and services at the county level would enable better awareness of and access to those programs and services by local lake organizations. Ted Ritter was hired by the County Land & Water Conservation Department to coordinate the project. The partnership quickly expanded beyond its affiliation with the WDNR to include the UWEX Lakes Program, WI Lakes (previously WI Association of Lakes), Vilas County Lakes and Rivers Association, Town Lakes Committees, area media outlets, local schools, professional lake management service providers, countless citizen volunteers and various others. Deemed a success early on, the WDNR has since made funding available state-wide for regional AIS project coordination.

The upcoming meeting will celebrate a decade of progress through creative partnering and hard work by more people than can be accounted for. The public is welcome to attend. Advance registration is not required nor is there a cost to attend.



Vilas County AIS Partners 2015 Review Meeting Agenda

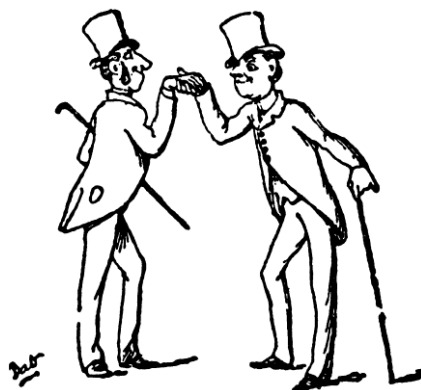
Thursday November 12, 2015

1:00-3:00 pm

Boulder Junction Community Center

5392 Park Street, Boulder Junction, WI 54512

- ❖ Welcome!
- ❖ Review of Clean Boats Clean Waters efforts
- ❖ Priority species and spread
- ❖ Cost for AIS control - past, present and future
- ❖ AIS Grants - past, present, and future
- ❖ Partnership Inspirations
- ❖ Vilas County AIS strategic plan
 - Efforts currently underway
 - Opportunities for partnerships
- ❖ Future needs of AIS partners discussion
- ❖ Other AIS partner input





**2016 Invasive Species Partners Meeting Agenda
Vilas County & Beyond!
Friday Oct 28, 2016
10:00 am - 4:00 pm**

**Boulder Junction Community Center
Boulder Lake Room
5402 Park St.
Boulder Junction, WI 54512
715-385-2220**

10:00 am - 10:50 - Terrestrial & Wetland Invasives

- Bringing It Home - Terrestrial Invasives & Local Efforts - Presented by Cathy Higley, Vilas County Land + Water Invasive Species Coordinator
- What WHIP Can Do For You - Presented by Rosie Page, Wisconsin Headwaters Invasive Partnership (WHIP) Coordinator
- Why We Weed... - Presented by Bobbie and Tom Kocim, Weeders Extraordinaire

11:00-12:30 - DNR Updates on Aquatic Invasives

- 10 Year Study on Eurasian Water-Milfoil - Presented by Michelle Nault, DNR Water Resources Management Specialist
- Results from Small vs. Large-Scale Herbicide Lake Treatments - Presented by Michelle Nault, DNR Water Resources Management Specialist
- AIS spread: Results from the 200 Lakes Study - Presenter TBD

12:30-1:15 - Lunch/Break

1:15-1:45 - Partner Updates/Open Forum

- Town Lakes Committee updates, Lake Org/Partner needs, Program Gaps, Successes, Consultant Input, etc.

1:45 - 2:15 - Aquatic Invasive Species Prevention

- Current AIS Costs in Vilas County - Presented by Cathy Higley, Vilas County Land + Water Invasive Species Coordinator
- AIS Monitoring and the Citizen Lake Monitoring Network - Presented by Sandy Wickman, DNR Water Resources Management Specialist

2:15 -3:00 - Clean Boats Clean Waters in Vilas County

- J CBCW program overview - Vilas County - Presented by Cathy Higley, Vilas County Land + Water Invasive Species Coordinator
- J UW-Oshkosh CBCW program - Presenter Greg Kleinheinz, UW-Oshkosh Environmental Research and Innovation Center, Viessmann Chair of Sustainable Technology, Professor of Environmental Engineering Technology
- J CBCW SWIMS App - Sign Up for interest in a pilot program!

3:00-4:00 - Local AIS Updates

- J Trout Lake Station Research Updates - Presenter TBD
- J Surface Water Grants Proposed Revisions - handouts from Shelly Thomsen, DNR Water Resources Management Specialist
- J Land + Water Conservation Dept. Updates: 2016 AIS finds, other local research, Healthy Lakes Opportunities

*Please remember to turn in an evaluation of the meeting before you leave.

Questions on the agenda? Contact Cathy Higley with Vilas County Land + Water at 715-479-3738 or at cahigl@co.vilas.wi.us.

Appendix I

Yellow Iris Location Maps (2014, 2016)


PARCELS NEAREST TO YELLOW IRIS SIGHTINGS

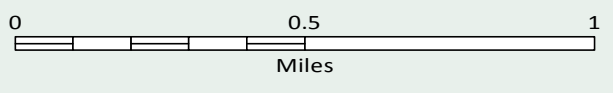
14-1007-001	14-1920	14-933	26-2841	26-2950-7	26-3028	26-3206	26-527
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14-1121	14-21	221-141	26-2934	26-2991	26-3043	26-3237-12	26-562-02
14-1124	14-3	221-188-0001	26-2936	26-2992	26-3047	26-328-01	26-564
14-1472	14-78-01	221-407	26-2939	26-3003	26-3057-01	26-473-41	26-614
14-1691-02	14-917	221-458	26-2945	26-3003-05	26-3058	26-480	26-615-02
14-17	14-917-01	26-1709	26-2949	26-3004	26-3101	26-484-01	26-615-04
14-18	14-932	26-2837	26-2950	26-3025	26-3141-10	26-522	

YELLOW IRIS

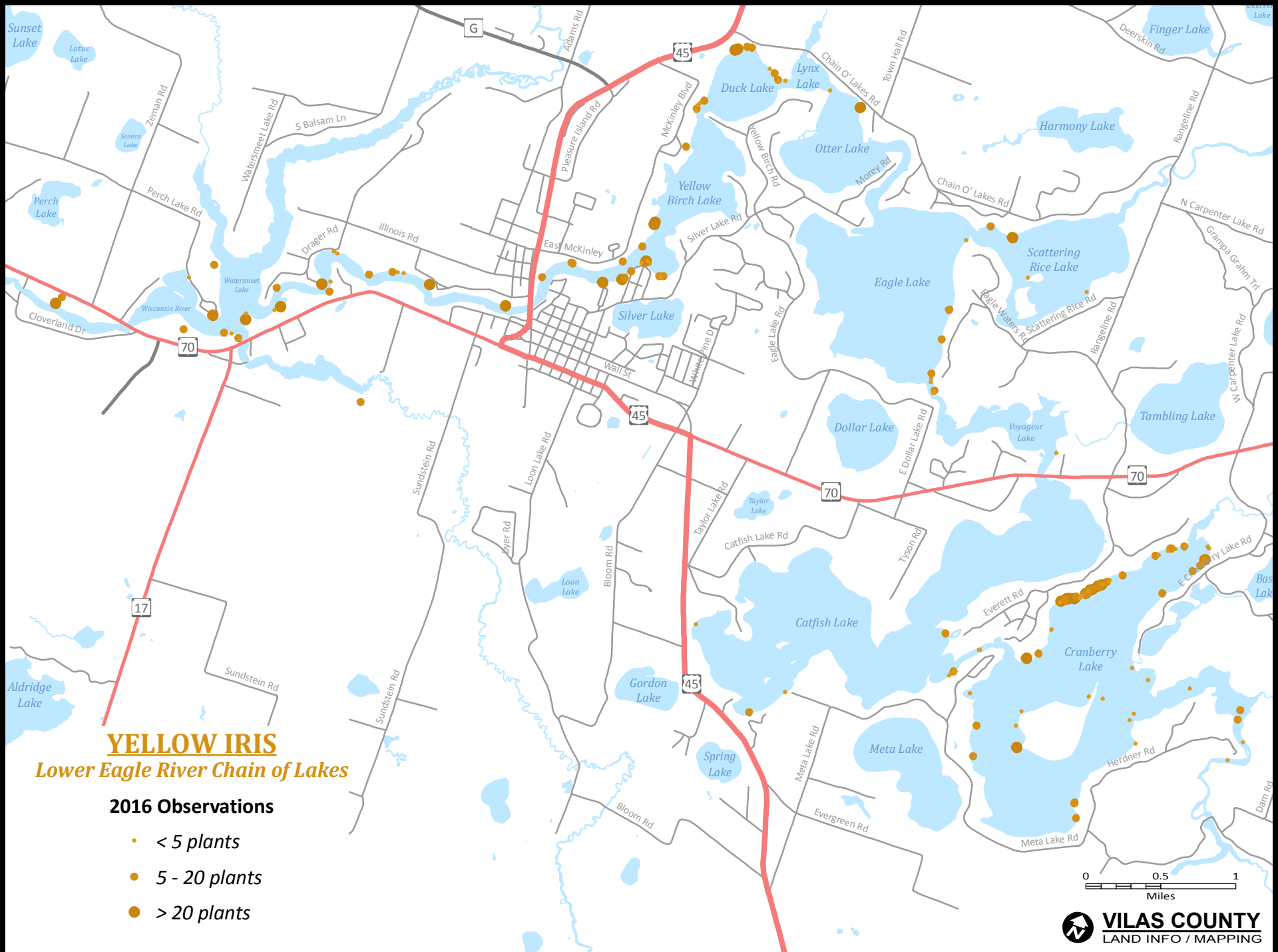
2014 CITIZEN SIGHTINGS

Lower Eagle River Chain of Lakes, Vilas County, WI

 Yellow Iris Sighting



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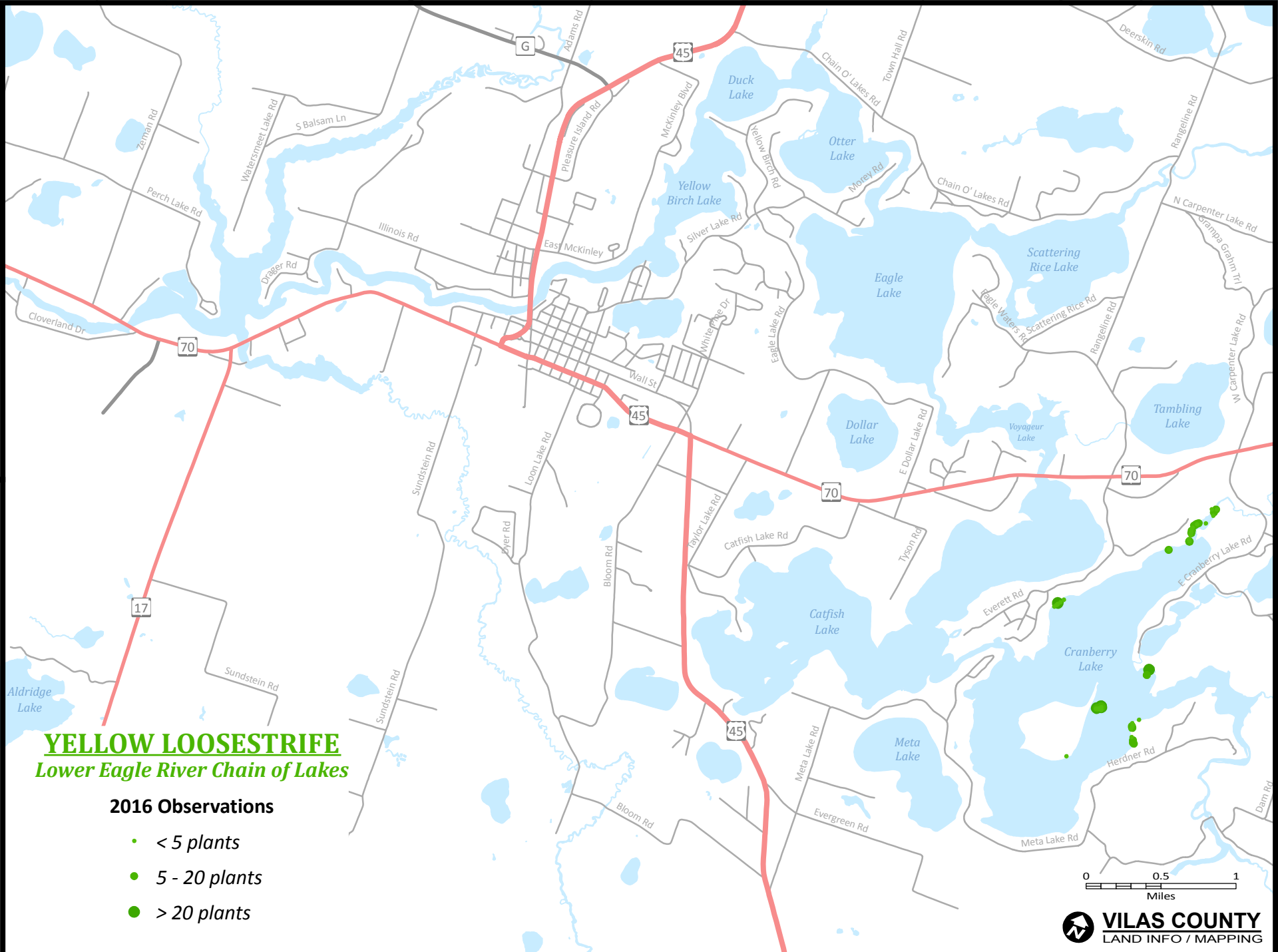
YELLOW IRIS
Lower Eagle River Chain of Lakes

2016 Observations

- < 5 plants
- 5 - 20 plants
- > 20 plants

Appendix J

Yellow Garden Loosestrife Map 2016



YELLOW LOOSESTRIFE
Lower Eagle River Chain of Lakes

2016 Observations

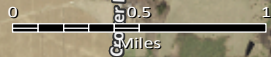
- < 5 plants
- 5 - 20 plants
- > 20 plants


Appendix K

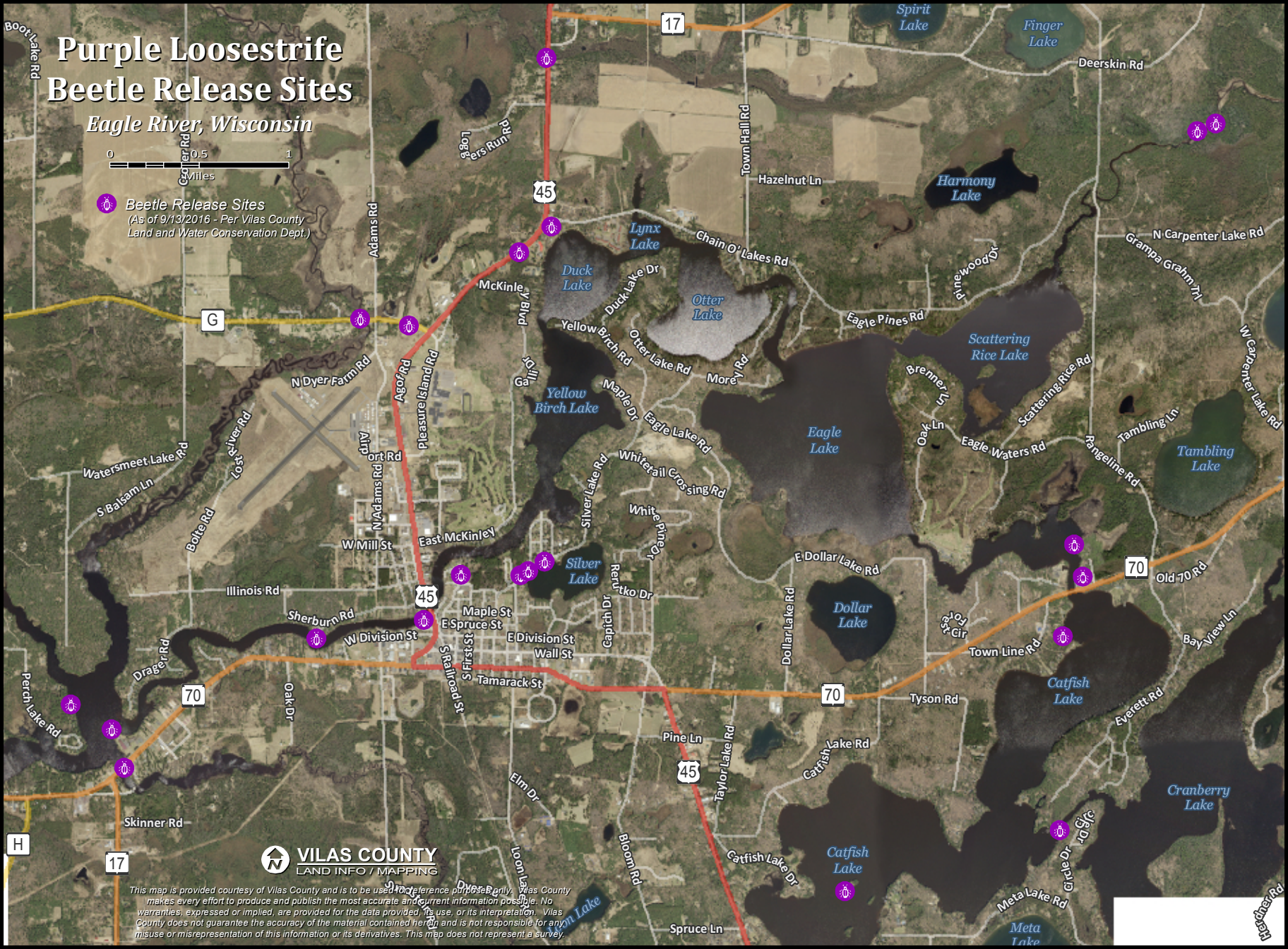
Purple Loosestrife Beetle Release Sites Map 2016

Purple Loosestrife Beetle Release Sites

Eagle River, Wisconsin



 **Beetle Release Sites**
(As of 9/13/2016 - Per Vilas County Land and Water Conservation Dept.)



 **VILAS COUNTY**
LAND INFO / MAPPING

This map is provided courtesy of Vilas County and is to be used for reference only. Vilas County makes every effort to produce and publish the most accurate and current information possible. No warranties, expressed or implied, are provided for the data provided, its use, or its interpretation. Vilas County does not guarantee the accuracy of the material contained herein and is not responsible for any misuse or misrepresentation of this information or its derivatives. This map does not represent a survey.

Appendix L

Map of Vilas County Lakes with Priority AIS

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SPINY WATER FLEA

- Ike Walton Lake
- Star Lake
- Stormy Lake
- Trout Lake
- Trout River

CURLY-LEAF PONDWEED

- Big Arbor Vitae Lake
- Harris Lake
- Island Lake
- Johnson Lake
- Lost Creek
- Mamie Lake
- Manitowish Lake
- Manitowish River
- Papoose Creek
- Rest Lake
- Spider Lake
- Stone Lake
- Tomahawk River

EURASIAN WATER-MILFOIL

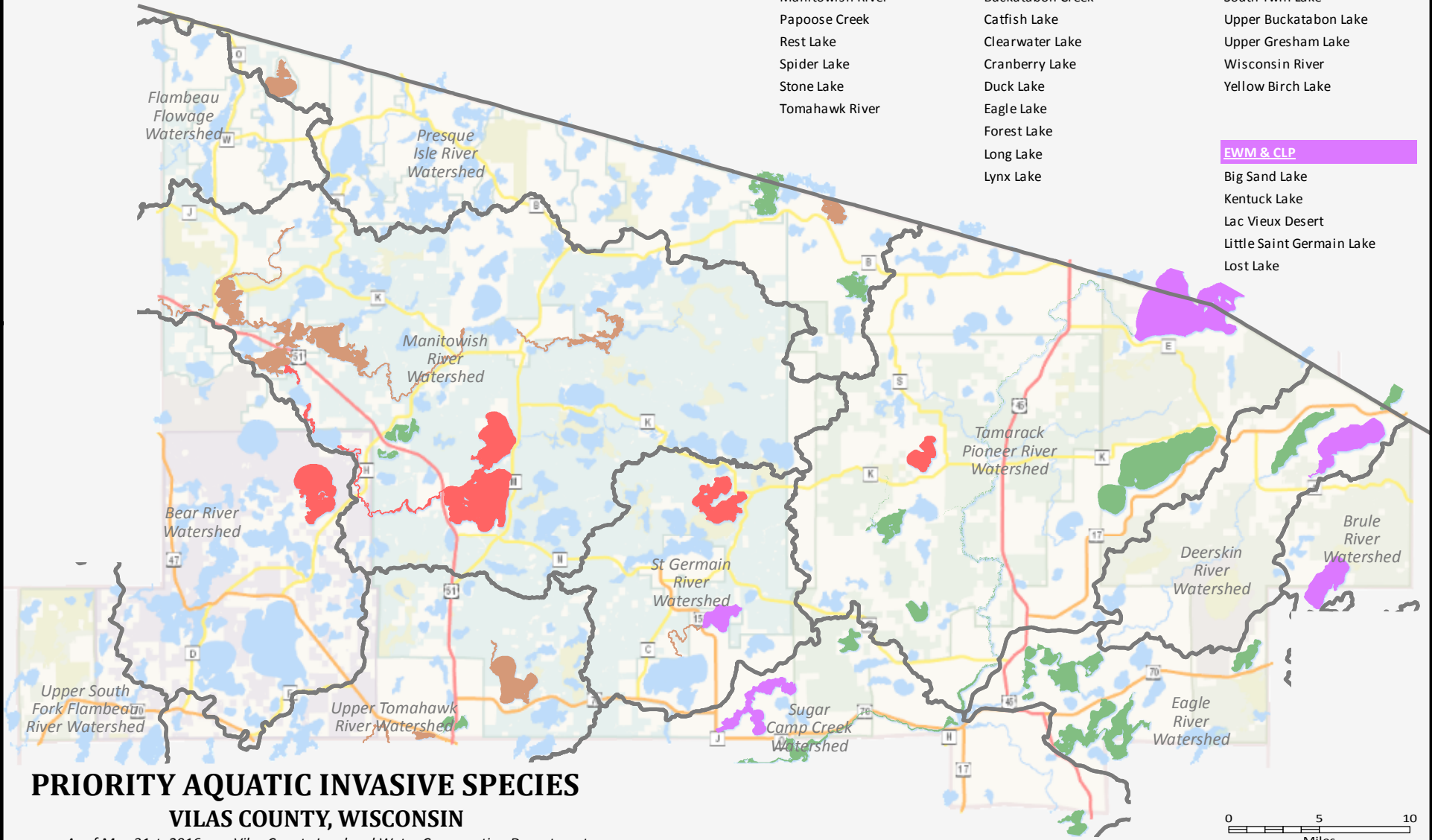
- Anvil Lake
- Arrowhead Creek
- Arrowhead Lake
- Big Lake
- Boot Lake
- Brandy Creek
- Brandy Lake
- Buckatabon Creek
- Catfish Lake
- Clearwater Lake
- Cranberry Lake
- Duck Lake
- Eagle Lake
- Forest Lake
- Long Lake
- Lynx Lake

EURASIAN WATER-MILFOIL

- Middle Gresham Lake
- Muskellunge Lake
- North Twin Lakes
- Otter Lake
- Scattering Rice Lake
- Silver Lake
- Smoky Lake
- South Twin Lake
- Upper Buckatabon Lake
- Upper Gresham Lake
- Wisconsin River
- Yellow Birch Lake

EWM & CLP

- Big Sand Lake
- Kentuck Lake
- Lac Vieux Desert
- Little Saint Germain Lake
- Lost Lake



PRIORITY AQUATIC INVASIVE SPECIES
VILAS COUNTY, WISCONSIN

As of May 31st, 2016, per Vilas County Land and Water Conservation Department

