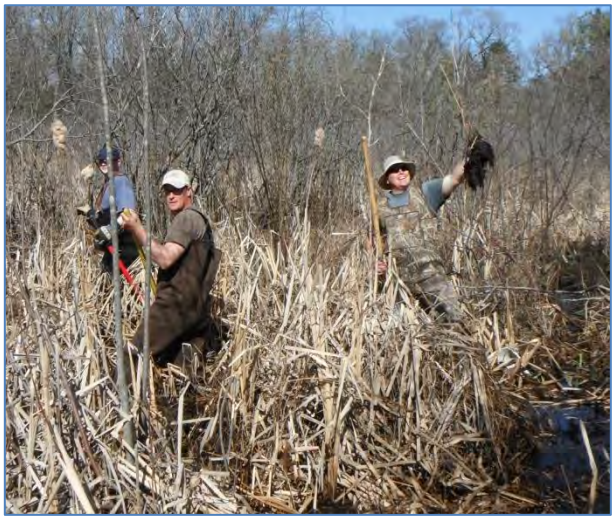
Regional AIS Specialist 5
Report to DNR
AEPP-362-12



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Our 2012-2013 Regional AIS Coordinator program was very successful, and was enthusiastically received by residents and professional partners of Portage, Marathon, Waushara, Waupaca, and Wood Counties. **Fifty educational workshops and invasive species monitoring and removal trainings** were held across the area, **24 AIS surveys** were conducted, the purple loosestrife biological control outreach program expanded in both volunteers, and in locations where rootstocks were collected. Many more accomplishments are noted in the report below. We would like to express sincere appreciation to the Wisconsin Department of Natural Resources AIS Grants Program for their funding assistance to our AIS program.
Listed below are the goals and objectives of our AIS program, including descriptions of how they were met during the grant period.

Goals and Objectives:

ALL COUNTIES

1. **CBCW, CLMN workshops.**

A total of four workshops were held across our five counties.

- A CBCW workshop was conducted at White Lake, in Waupaca County.
- A CBCW workshop was conducted at Marl Lake, in Waushara County.
- A CBCW workshop was conducted at Pearl Lake, in Waushara County.
- A CBCW workshop was conducted at Wadley Lake, in Marathon County.

The CLMN program has been consistently popular with volunteers. People enjoy the knowledge gained about aquatic invasive species, and are better able to differentiate between the invasive and native plants on their lake. Early detection of many pioneer infestations have been found by volunteers that have come to workshops. Long Lake is a very active lake group, and have been running a robust Clean Boats Clean Waters program for years. Over 53 volunteers came to all the CBCW trainings this year, eager to protect their lakes.

Appendix 1 shows volunteer participation in our 5 counties as recorded by SWIMS. While we are proud of our volunteers in the formal CBCW and CLMN programs, it is important to note that there are several times as many informal volunteers, just starting to “get their feet wet” by learning plant ID and reporting directly to us. While these volunteers are harder to quantify, we consider them a valuable partners in the fight against invasives, and hope to encourage them to go further by joining the CLMN or CBCW programs.

2. **Biological control of purple loosestrife promotion.**
   - Purple loosestrife beetle (*Galerucella* beetle) rearing projects were not only continued; but, in 2012 and 2013 this program continued to expand. 35 biocontrol pools were hosted, consisting of 216 individual plants on which beetles were raised. Over 178,800 beetles were released in 2013 alone, which is over 100,000 more than in 2012.


Volunteers dig purple loosestrife rootstocks.

Waupaca big dig and beetle collection - WDNR, local volunteers, and The About Face program,

Volunteers clean off rootstocks for use in rearing the beetles.

through Rawhide Boys Ranch, assisted Golden Sands in digging rootstocks for volunteers participating in the purple loosestrife biological control. They collected **80 rootstocks** for volunteers to grow for hosting purple loosestrife beetles.
They also collected 1374 individual purple loosestrife beetles from the wild to put on those host plants, and the plants collected in Portage County.

The majority of these volunteers were in Waupaca County, due to combining efforts with Jim Hlaban, an avid outdoorsman who had been growing his own outreach program for many years. In Waupaca County, Kaycie (Regional AIS Outreach Specialist) collaborated with Jim and the Rawhide Boys Ranch to assist in digging root stocks and collecting beetles for the project. Many beetle release locations were purple loosestrife infestations nearby the homes of volunteers.

Waupaca County hosted a biological control in front of their courthouse, and Marathon County also hosted a biological control in front of their County Planning and Zoning building. It is a goal for the future to involve every cooperating county in hosting a biocontrol pool in front of their county building.

Portage County Big Dig and beetle collection – A local landowner named Jim Okray owns land in Stevens Point that was designated as a Wildlife Management Area. He was interested in collaborating with Golden Sands this year on ways to remove his purple loosestrife. It was decided that the rootstocks would be collected from his property, and given to volunteers to raise beetles. Kaycie organized an event with the Wisconsin River Academy at Stevens Point Area Senior High (SPASH). Students in the class dug **150 rootstocks**, and separated them into viable sections that volunteers could then pick up to use for their biocontrol.

Students haul up heavy root balls to split into more manageable sections.

3. Invasive plant identification and hand removal trainings.

Twenty one separate monitoring and removal trainings, were held at twenty locations across the five counties, with cooperation from local residents and volunteer groups, lake associations, and/or county Land Conservation Department staff. Lake groups were trained in proper plant identification and removal techniques at these coordinated work parties. These events were held at Wolf, Sunset, and Emily Lakes in Portage County; Lucerne, Porters, Deer, Big Silver, Little Silver, Napowan, and Alpine Lakes in Waushara County; Bear, Round, and Weyauwega, in Waupaca County; and Wadley, Wausau and Mission Lakes in Marathon County. No EWM plants were found at Collins Lake in 2011, but a few plants were detected again in 2012. It appears that the combinations of early detection and hand-pulling efforts in 2010-11 were effective at containing the population at low levels, but EWM continues to be present in low numbers. Rocky Run Wetland is showing promise as well. Surveys in 2011-2013 failed to detect any EWM, and this lake is now listed as “Believed Eradication” by the DNR; and is the first time any AIS has been delisted in the state of Wisconsin by use of manual removal.

Japanese Knotweed:

Starting in 2011, more efforts were made by Golden Sands to increase outreach and education on Japanese knotweed, which has been increasing in Central Wisconsin over the years. Efforts to both inventory locations and host removal parties were stepped up to try and combat the plant before it gained a stronghold in Wisconsin.

Volunteer at Bear Lake removing Japanese Knotweed.

Two spots on Bear Lake, Waupaca County - In 2011, two Japanese Knotweed patches were discovered by landowners a few months after an AIS identification presentation was given by Golden Sands RC&D. Kaycie led volunteers, including Dan McFarlane from Waupaca County LWCD in a work day to remove and treat the Japanese knotweed on the property. The landowners and Lake Preservation Association worked together since then to host invasive species removal work parties at both locations every year. At one location, all that is left are a few plants that the landowner pulls every spring. The other location had less than ¼ of the plants come back after last year, and the landowner, along with other volunteers, continues to monitor and pull any plants found at the location. The lake group will be looking for any new growth in that area, as well as with other areas around the patch of knotweed.

Weyauwega Lake, Waupaca County – A landowner on Weyauwega Lake heard about Golden Sands RC&D and their involvement in AIS education. They had Japanese Knotweed on their lakeside property, on a slope going down to Lake Weyauwega. The landowners were interested in learning to remove and follow up on the Japanese Knotweed on their and their neighbor's properties. Golden Sands RC&D hosted an invasive species removal training. Three volunteers learned how to identify and remove the plants. The landowners and other volunteers are going teach their neighbors how to identify and remove the plants. They are planting native plants to prevent erosion.

Cutting and treating Japanese knotweed on Lake Weyauwega.

Property infested with Japanese knotweed- before removal.

Same property after the Japanese knotweed is removed.

Big Silver Lake, Waushara County – During a lake survey, Kaycie discovered three patches of Japanese knotweed near the water on private land. She worked with the landowners, and removed one of the patches, while a volunteer removed one of the other patches. The

landowners of the third patch of Japanese knotweed will be back to their vacation home in the spring, and are willing to work with Golden Sands RC&D to remove the plants on their property then.

Lake Helen, Portage County – In 2012, landowners found Japanese knotweed on two locations on Lake Helen. Volunteers coordinated, cut and treated the plants at both locations. In 2013, one location did not need another removal, because the landowner monitored and pulled any new growth. The second location had a change in ownership and another treatment was scheduled there.

Japanese knotweed haul on Lake Helen.

Round Lake, Waupaca County – In summer of 2013, a landowner on the Chain of Lakes reported Japanese Knotweed on his property. The property had had Japanese knotweed for years, and it was spreading to the roadside, and into the wetland areas to either side. Seven different people helped in the removal, including two residents of the area, and two Waupaca County employees. The plants were cut and then the stem was filled with a water-friendly herbicide. Altogether, over 1060 pounds of the hollow plant were collected and brought to a nearby landfill.

Round Lake Japanese knotweed plants. Approximately 1060 pounds.

Alpine Lake, Waushara County – During an AIS survey by Golden Sands RC&D, Japanese knotweed was found growing on Alpine Lake. The landowners were insistent on being trained how to monitor and remove the plants. During the training, four volunteers assisted with the cutting and treating of the small patch of Japanese knotweed along the shore. The material was hauled away from the lake to a nearby property and burned.

Volunteers removing Japanese knotweed on Alpine Lake shoreline.

Eurasian Watermilfoil (EWM):

Lake Lucerne, Waushara County – Lake Lucerne had Eurasian watermilfoil (EWM) discovered in 2009 during an AIS survey. Over the years, manual removal events have been conducted by volunteers to remove the plants. A removal event utilizing a volunteer from Waushara County was organized in 2013 to remove the EWM. At the start of the event, there was less than ¼ of the amount of EWM that was observed in 2009. It was all removed utilizing manual removal methods. The landowners on the lake will continue to scout for invasive species. A volunteer from the lake that

Scooping up handfuls of EWM at Lake Lucerne.

Golden Sands trained in identification continues to monitor the lake regularly for Eurasian watermilfoil.

A big load of EWM on Deer Lake.

Deer Lake, Waushara County - Golden Sands RC&D and Waushara County Land Conservation Department removed most of the Eurasian watermilfoil from the south end of Deer Lake (estimated 300 plants). A few plants remained in deeper water, so the lake association was advised to pursue removal by snorkeling or SCUBA diving in spring 2014. They are eager to be involved in the training. Less than 50 plants are estimated to remain in Deer Lake.

A volunteer dives down and manually pulls EWM, while a kayak waits at the surface.

Sunset Lake, Portage County - Sunset Lake had a chemical treatment for EWM on the east side of the lake in 2010. In 2011, no EWM was discovered. In 2012 and 2013, a handful of plants were discovered on the west side of the lake. Sunset Lake banded together volunteers on three separate occasions to remove it all. The volunteer base is excellent, and eager to learn more about monitoring their lake for invasives. They continue to monitor and manually remove any plants found year after year.

Wolf Lake, Portage County - Wolf Lake has had a steady population of EWM for the past 4 years. There have been scheduled hand-pullings every summer to keep the population under control. The EWM has continued to persist, despite these efforts. Because 2013 is Wolf Lake's last eligible year for a rapid response grant, Portage County adopted Wolf Lake onto their existing grant. Wolf Lake received a chemical treatment in 2013, and the post treatment survey revealed no EWM. Monitoring will continue to check for EWM in 2014.

Porters Lake, Waushara County: Hand-pulling of EWM in Porters Lake occurred seven times in 2012, with the assistance of lake residents. The August 25th hand-pulling event included 16 volunteers, and was very successful. Follow-up hand-pulling events focused on removing the remaining EWM, starting at the north end of the population and moving southward to isolate the population into the southwest corner of the lake. This area of the lake has abundant native vegetation at the deep edges, which was serving as a barrier to

Volunteers hand pulling Eurasian watermilfoil at Porters Lake during a work party.

fragment dispersal. Other areas that were more open to the rest of the lake were deemed a priority to remove EWM from. The southwest bay of the lake was treated with herbicide in May 2013, and follow-up monitoring and hand removal occurred throughout the growing season. The herbicide treatment was very effective at killing the EWM in the southwest bay, and only a few plants were discovered (and removed) in June. Frequent volunteer monitoring occurred in summer and fall 2013, with no EWM plants observed. The volunteer monitors on the lake are very excited and are anxious to continue monitoring and removing any discovered EWM in 2014.

***Phragmites australis* (Common Reed Grass):**

Golden Sands is participating in a statewide initiative to map *Phragmites australis*. The mapping will be followed by a focus to remove the plant, starting on the edge of its extent in the state.

A volunteer pulls *Phragmites australis* at Sunset Lake.

Sunset Lake, Portage County - *Phragmites australis* was also discovered in 2 feet of water on the west end of the lake. Volunteers waded in the mucky water and hand pulled it by the roots. The volunteer base is excellent, and eager to learn more about monitoring their lake for aquatic invasive species. Sunset Lake was monitored in 2013, and no *Phragmites* came back.

Lake Lucerne, Waushara County - *Phragmites australis* was discovered in 2013 during an AIS survey by Golden Sands RC&D. A volunteer removal date was scheduled, and the plants were all removed and treated with an herbicide. The landowners on the lake will continue to scout for invasive species. A volunteer from the lake that Golden Sands trained in identification continues to monitor the lake regularly for *Phragmites*.

Lake Napowan, Waushara County - *Phragmites* was found on Lake Napowan during a summer survey in 2013 at three locations on the lake. Two of the locations were just southeast of the boat landing; one amongst the bulrush under about two feet of water, and the other further south on an isthmus on the south side of the lake. The third location was across the lake on the northeast side. Golden Sands worked with Waushara County Land Conservation Department and lake residents to train them how to identify and remove the plants. All of the plants were cut and treated.

A long rhizome of *Phragmites australis* at Lake Napowan.

Flowering Rush:

Little Silver Lake, Waushara County – During an AIS survey by Golden Sands RC&D in 2013, a small patch of flowering rush plants were discovered adjacent to the boat landing, in <1 foot of water, growing with bur-reeds and cattails. Golden Sands staff hosted a workshop involving training in identification, removal, and monitoring. A crew of five volunteers from Little Silver Lake were trained on identification of flowering rush, focusing on distinguishing flowering rush from the similar native species nearby. A minnow seine was set up on the deep edge of the bed to catch any fragments that could float away from the work site. The flowering rush patch was removed by hand; material was hauled away in garbage bags and spread to dry in a sunny, upland site away from the lake. Little Silver Lake volunteers were eager to monitor the area for any re-sprouts of flowering rush, and were confident in their ability to distinguish the flowering rush from the many look-alike species nearby.

Volunteers removing a small stand of flowering rush from Little Silver Lake.

4. Milfoil weevil surveys.

As one of our services to lake groups, we offer population density surveys for the native milfoil weevil, *Euhrychiopsis lecontei* for lake groups interested in exploring biological control as a method of treating their EWM problem.

On July 23, 2012, a total of 98 EWM stem samples (30 from each of Beds 1,2, and 3, and 8 stems from Bed 4, from across all depth zones) were collected from Springville Pond in Portage County, where EWM is patchy throughout the lake. A lake-wide average of 1.88 N/stem, although there was great variability between beds, as is usual in Springville Pond. Beds 1 – 3 have average densities of 1.97 N/stem or more, well above the statewide average of 0.65 N/stem. In contrast, Bed 4 on the western end of the pond, where the water is about 9 to 12 feet deep and EWM may not reach the water surface, the average weevil density is often found to be 0.5 N/stem or lower, even 0 N/stem. Indeed, the average weevil density was found to be 0 N/stem again in 2012. Weevil survey data and map are in Appendix 2.

The use of chemical controls is controversial with the residents of Springville Pond, who have shifted away from reactionary management towards a more pro-active, multi-pronged approach to managing the aquatic plants on Springville Pond. This approach includes the use of biological control, hence Golden Sands' continued monitoring of the weevil population.

Although much of the shoreline of Springville Pond is developed, many landowners maintain a healthy shoreland buffer suitable for weevil overwintering habitat. Springville Pond has been recorded to have a naturally-occurring milfoil weevil population that is often near or above the statewide average of 0.65 N/stem. Weevil survey data by Golden Sands staff is shown in Table 1 with EWM Point Intercept survey data collected by the UWSP Center for Watershed Science & Education. The data shows EWM declining, and weevil populations remaining strong. We recommend continued monitoring to both provide quality management data to the residents of Springville Pond and collect valuable data about the interaction between EWM and its natural enemy, the milfoil weevil.

Table 1
Springville Pond Survey Data
Milfoil Weevil Survey Data = Golden Sands RC&D
EWM Point Intercept Data = UWSP Center for Watershed Science & Education

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
EWM Freq of Occur in Vegetated Areas (%)			100	80	85	78	50			
EWM Relative Frequency (%)			92	40	52	46	40			
EWM Average rake fullness (Scale of 0 to 3)			1.51	1.13	1.43	1.29	1.13			
Weevil population density (N/stem)	1.65	0.54	0.24	0.20			1.04		1.88	2.47

Phytobius leucogaster, another native weevil, is also naturally-occurring at Springville Pond. While this species of weevil is not very useful in controlling EWM on its own, it does damage EWM flowers and is hypothesized to possibly be useful in combination with other biological control agents. It is recommended that *Phytobius* occurrences be recorded in the surveys as well.

5. AIS early detection response and monitoring services.

Many of the work parties to remove AIS were a result of Golden Sands RC&D staff investigation a pioneer infestation. Each invasive species that was found was vouchered, mapped, and reported to the DNR, the respective municipalities, and the appropriate Lake Association or Lake District. Each infestation that is found is monitored after management occurs. Golden Sands staff also ensures that involved volunteers are able to identify and properly monitor for AIS.

Update AIS inventory.

In Portage County, which was added to the grant in 2012, Golden Sands RC&D staff surveyed 24 lakes. (Appendix 3)

Although only Portage County was scheduled to get county-wide surveys during this grant period, many other lakes in different counties were also surveyed upon request. Golden Sands RC&D staff recorded, mapped, and collected vouchers of aquatic invasive species that were found; and reported their findings to the DNR, using the SWIMS database. (Appendix 4)

27 new infestations of AIS were found and documented during this grant period in our five-county region. Not as many pioneer infestations were found in Portage County, because the lakes had all previously been surveyed by Golden Sands RC&D for aquatic invasive species. New infestations included: 5 Eurasian watermilfoil *(Myriophyllum spicatum),* 6 curly-leaf pondweed (*Potamogeton crispus*), 9 mystery snails (*Bellamya chinensis* and *Viviparus georgianus*), 6 purple loosestrife (*Lythrum salicaria*), and 1 flowering rush (*Butomus umbellatus*). For the full list of all of the documented invasive species for each of the five counties, see Appendix 5. For countywide maps showing all documented cases of EWM and CLP, see Appendix 6.

6. Education/outreach program.

Education and outreach was a major component of this project, as it needs to be. Education of the public and their encouragement to assist in AIS monitoring and control is crucial in the battle against aquatic invasive species in Central Wisconsin and beyond. Kaycie, Paul and Amy presented at public meetings to educate residents and other stakeholders about AIS of concern, especially those AIS in close proximity to the meeting location. Whenever possible, live and preserved specimens of each species discussed at the meeting were provided during the presentation for the attendees. Current informational brochures and handouts were also made available for the attendees to take home with them. Many positive comments were received from the audience regarding the availability of live specimens, especially from those that have no experience with plant or animal taxonomy. They are better able to understand identifying characters when they can see and touch the actual species

during and after the discussion. A number of reports of new AIS have come in after these meetings, suggesting that the audience members feel capable of conducting AIS monitoring after just this brief introduction to AIS and the problems they cause.

Public Education via speaking opportunities- Golden Sands RC&D education and outreach extended to 29 events, including:

Sunset Lake AIS Presentation
Kaycie presented to Sunset Lake Association on AIS identification, and methods for removing Eurasian watermilfoil. A manual removal effort has been taking place at the lake for years, and Kaycie taught the volunteers how to recognize the plants from the surface of the water. She then taught them how to properly remove the plants by the roots.

McDonald Island Invasive Species Removal Days
Over 100 high school students participating in the Wisconsin River Academy program at Stevens Point Area Senior High were involved in two riparian invasive species clean up days. In total, an acre of Japanese barberry in the floodplain area was removed and treated by students and volunteers. The area was mapped beforehand, as well as afterward to show progress.

Environmental AIS lessons in classrooms:
Every spring academic semester, Golden Sands RC&D employees travel to fifth grade classrooms in Marathon, Portage, Waupaca, Waushara, and Wood counties to teach “Aquatic Invaders in the Classroom,” a lesson on aquatic invasive species. In 2013, the environmental educators went to 27 classrooms. A total of 1159 students were reached.
The lesson starts out with introducing students to what invasive species are, where invasive species come from, how they impact the environment and human activities, and ways that they can prevent the spread of invasive species. Live and preserved specimens are incorporated into the lesson, so that students can learn how to identify and become familiar with some of the most common invasive species in the region. In order to illustrate the impact that invasive species can have on lake ecosystems, a game is played. The game is similar to the AIS invasives versus natives game played for the Waushara County Kids Conservation Field Day, listed below. Students enjoy being able to move around and apply the concepts that they have just learned to the game and to discussion.
Students and teachers alike value these lessons. This can be shown by the amount of positive feedback that we receive and by the fact that we are often invited to come back year after year.

Wadley Lake Fisheree
Kaycie spoke at the Wadley Lake annual fisheree about Wadley Lake’s grant application and how they can carry out their goals of monitoring for AIS, and developing a Clean Boats Clean Waters program.

American Water Resources Association (AWRA) Presentation
Paul and Kaycie were asked to speak about AIS for the Student Chapter of AWRA at UW-Stevens Point. They spoke about methods of removal, and how students can be involved in education and outreach that Golden Sands hosts for their AIS program.

Purple loosestrife presentation for Waupaca County Master Gardeners
Kaycie presented on purple loosestrife and methods of removal. She focused on the biological control aspects, and encouraged the Master Gardeners to become involved with the program. They were excited to learn of this resource for increasing plant diversity in areas invaded by purple loosestrife.

Citizen Lake Monitoring Train the Trainer Meetings
UW-Extension Lakes asked Paul to present on identification of common aquatic invasive species, as well as potential AIS that may show up in the future. Species covered included EWM, CLP, rusty crayfish, mystery snails, zebra and quagga mussels, spiny water fleas, Brazilian waterweed, Carolina fanwort, brittle naiad, parrot feather, and hydrilla. This was primarily to assist many new county AIS staff members in getting up to speed, but also served as a refresher for other AIS staff.

DNR Aquatic Plant Identification Training Workshop
DNR staff asked Paul to speak to the group on identification and impacts of NR40-prohibited aquatic plant species, as well as water hyacinth and water lettuce, which are unregulated by NR40. Paul also assisted Susan Knight with the "Advanced plant ID" session of the workshop.

Port Edwards High School Earth Day Celebration
Port Edwards H.S. invites speakers from around Central Wisconsin to give presentations to groups of kids on topics related to environmental science. The kids choose which presentations they would like to hear about. Kaycie presented on aquatic invasive species, bringing live samples with her for the kids.

Wisconsin Lakes Convention
Paul and Kaycie gave several presentations at the 2012 Wisconsin Lakes Convention in Green Bay. Paul presented a workshop and a poster on strategies for manual removal of Eurasian watermilfoil, an oral presentation on milfoil weevils, and assisted with the Citizen Lake Monitoring Network training by discussing identification of aquatic invasive plants. Kaycie presented a poster on aquatic invasive species removal techniques for purple loosestrife, Eurasian watermilfoil, and Japanese knotweed. She also explained the ins and outs of the Golden Sands RC&D program.

Participate in Weyauwega Millpond public meeting
Paul participated in a panel discussing problems on Weyauwega millpond, including abundant vegetation, especially flowering rush. Other panel members included DNR staff and a representative from Domtar. Flowering rush is expected to die back on the upper end as the water level remains elevated. Much of it had released from the sediment as floating mats already. Some plants may convert to a submergent form if they remain anchored in the sediment. It is a wait-and-see situation.

Big Silver Lake (Waushara County) Kid's AIS Day
Over 200 8th graders from Waushara County schools got a lesson on AIS from Golden Sands staff and members of the Big Silver Lake Management District. This included an on-shore presentation and time on the water in pontoon boats to see AIS in Silver Lake first-hand and learn about Silver Lake's management approach. Paul, Kaycie, Amy and Ed Kissinger (Silver Lake Management District President) discussed past management strategies that Big Silver Lake has undertaken to combat the EWM.


Students inspecting plants from Big Silver Lake.

Waupaca County Conservation Field Days
The 7th Annual Waupaca County Conservation Field Day was held at Hartman Creek State Park. More than 450 Waupaca County 5th grade students attended the event from Waupaca Middle School, Manawa Elementary School, Iola-Scandinavia Elementary School, Marion Elementary School, St. Martin Lutheran School, Clintonville Middle School, and Emanuel Lutheran Learning Center in New London.

Classes learned about aquatic invasives through hands-on activities at the Waupaca County Kids Conservation Field Day.

The Field Day event offered students over twenty hands-on field stations, each highlighting a different conservation concept or career. Field stations offer a wide variety of topics including aquatic invasive species, learning to compost, conservation law enforcement, aquatic plants, soils, agriculture, wildlife, forestry, wetlands, gardening, geo-caching and more. The students spent the day at the park, rotating through stations that they had selected prior to the event. They also had the opportunity to explore the forested trails in the Park as they took a mid-day hike during the lunch break. Field journals were provided for students to record their experiences and observations from the event.

Amy presented live samples of invasive species, and taught best management practices as outlined in the Clean Boats, Clean Waters program.
Paul presented a game focused on native aquatic plants and their benefits to wildlife and people. In the game, each child received a card, either with a picture of a duck, turtle, dragonfly, or fish printed on it. Also written on the card was the type(s) of aquatic plant habitat the specific animal needed. The types were emergent, submergent, or floating plants. Some animals needed one, while others needed two or even three types to survive.
Thirteen tubs filled with different combinations of these plant types (submergent, emergent, and floating) were put in a circle. The children stood behind the tubs, with no more than two children behind one tub. When Paul said “Go!” the children, depending on what animal they were waddled, flew, or swam around the circle. When he said “Predator!” the children had to stop where they were. If the tub didn’t have all the plant habitat types the child’s animal needed, then they didn’t make it. There were a total of 13 tubs, with one container with just water and sediment to signify a beach or chemically treated area, one with water with algae to signify an algae bloom, two containers with all three habitat types, two containers with submergent and emergent plants, two containers with submergent and floating plants, two containers with emergent and floating plants, one container with floating plants, and one container with emergent plants.
The children all had a good grasp on what was happening to their animal. When asked why they didn’t survive, responses such as “This beach didn’t have any plants for my duck to survive!” were common among responses.

Waushara County Conservation Field Days

Over 200 4th and 5th grade students from Waushara County schools attended the Waushara County Conservation Field Day in May, and participated in our AIS education station as well as other natural resource education stations. The students played a game explaining the interactions between native species and invasive (exotic) species. Kaycie provided live plants and animals for the kids to look and compare to native species. The kids all played the game that Paul developed based on a game used by Reesa Evans, Adams County AIS Coordinator. The kids were very active in the game and readily understood the concept of how invasive species outcompete native species and decrease species diversity.

Students learned about rusty crayfish at the Waushara County Kids Conservation Field Day.

In the game, each kid begins by standing on a laminated photograph of a native plant (water lily or yellow water crowfoot) or invasive plant (CLP or EWM). Each card has a native species on one side and an invasive on the other. The card displays the number of yellow (sunlight) and green (nutrients) cards that the player must collect each round to survive as their species. The native species require more cards to survive. Kids standing on an invasive species get to start collecting cards for a few seconds before the natives, to demonstrate the early-season growth that many invasive species exhibit. After those few seconds, the other players also begin reaching for as many cards as they can obtain around themselves. All players must remain "rooted" by keeping one foot on their plant card at all times. Uprooted plants "die" and leave the game. Players that do not collect enough cards of each type either flip their card over (native turns into an invasive) or leave the game (invasive did not collect enough). After several rounds, it is clear that most of the native species have been displaced by invasive species. When asked how this happened, each group of kids offered an excellent explanation – the invasive species got to collect sunlight and nutrients earlier, and they also required fewer of each to survive. Most groups of kids contained between 20 and 25 kids, but the game has enough cards to handle a group of 40 kids.
Students also monitor a patch of Japanese knotweed that was pulled there in 2012.

AIS Lesson for Purdue class
Paul and Kaycie met with students from Purdue University at a conservation retreat. They gave a presentation on AIS and aquatic plant adaptations.

AIS and Watercraft Inspection Training for Statewide AIS Seasonal Staff at UW-Stevens Point
Kaycie and Paul attended this training along with the summer intern staff, and provided assistance with Clean Boats Clean Waters role-playing during the training. Paul also presented on aquatic invasive species identification and biology.

Kaycie shares invasive species information with students from Purdue University.

Weyauwega AIS kids day
Kaycie presented on AIS for a conservation field day hosted by Weyauwega High School. Students were shown various AIS, such as flowering rush, and learned about drawdowns and the effect they have on AIS, the environment, and river and lake ecosystems.

Flowering rush survey – School Section Lake
Paul surveyed School Section Lake to follow up on a report of a small stand of flowering rush to the north of the boat landing. Five individual stands of flowering rush were observed, though only one was actually in flowering stage. Letters have been sent to the landowners adjacent to these stands, and one landowner has currently expressed interest in helping to remove these plants from the lake.

Cedar Lake AIS training
Kaycie met with a volunteer on Cedar Lake, after he contacted her about possible AIS on the lake. She taught him how to distinguish the Eurasian watermilfoil from the whorled watermilfoil and northern watermilfoil. He wants to do a manual removal event in the spring, and perhaps apply for funding for an herbicide treatment.

Wisconsin Waterfowl Hunters' Conference, Wausau
Kaycie was asked to present at the Wisconsin Waterfowler Hunters conference in February. She spoke about new AIS that were discovered in the Mississippi waterway, and invited hunters to actively monitor for AIS while they are out hunting. She described steps that hunters can take to prevent transportation of AIS.

Fern Island Riparian Invasive Work Day
October 11th, 22 students from Wausau East converged on Fern Island for the eighth annual battle against invasive shrubs there, continuing the battle that began seven years ago to eradicate them from Fern Island. Student crews learned first-hand how invasive non-native buckthorn and honeysuckles can be, and honed their plant identification skills through hands-on field work. An estimated total of four acres were cleared of the invasive shrubs by the students. Monitoring surveys have found that the maximum percent cover of invasive shrubs on the island has dropped from 65% in 2010 to 20% in 2013.

The 2013 student crew and crew leaders at the Fern Island Invasive Species Field Trip.

Both parks include floodplain forest habitat, a unique kind of wetland. It is made up of a variety of environments, both wet and dry, so many different species of plant and wildlife can be found in these ecosystems. Waterfowl, amphibians, songbirds, fish, insects, and reptiles all use these wetlands. Forest floodplains help people, too. They clean the water and are extremely important for managing floodwaters and reducing floods.

EWM hand-removal workshop at Wautoma DNR office
Golden Sands staff conducted a workshop on manual removal of Eurasian watermilfoil at the Wautoma DNR office. The processes of monitoring for EWM and manually removing it were discussed, and a tutorial video was shown to the audience. Over a dozen lake residents/recreationalists attended and many positive comments were received.


An eager participant works to remove glossy buckthorn from the shore of Fern Island.

Outreach at Various Events:
An AIS display/informational booth with live samples, educational materials, as well as many free fun items for kids and attendees was stationed at the following events:

International Ice Fishing Tournament
Kusel Lake Ice Fishing Tournament
Waupaca County Fair
Waushara County Lake Fair
Ice Fishing Show
Amherst Lake Fair
Karner Blue Rendezvous

Paul partnered with Chris Hamerla (former Lumberjack RC&D AIS Coordinator) to produce an informational brochure entitled “Eurasian Watermilfoil Manual Removal”, which was adopted and printed by WDNR. Distribution of this brochure was launched at the 2011 Wisconsin Lakes Convention, and Paul and Chris intend to expand the brochure into a larger “guide to EWM manual removal” at a later date. A video compilation has also been created, and debuted during the “Strategies for Manual Removal of Eurasian Watermilfoil” workshop that Paul gave at the 2012 Wisconsin Lakes Convention. An updated version of the video with narration is now available on DVD or on YouTube at https://www.youtube.com/watch?v=CfsEDyAwQP4 .

This serves as a visual tutorial for lake groups interested in controlling pioneer populations of EWM with minimal financial investment.

7. Assist lake residents as needed.
Much of the lake group assistance is reported in the categories above, however, some additional assistance was given during the term of this grant:

- ✓ Four lake groups were assisted with the permitting process for chemical treatments of EWM:
  - Wadley Lake, Marathon Co.
  - Pickerel Lake, Portage Co.
  - Wolf Lake, Portage County
  - Lake Emily, Portage County

- ✓ Many lake residents were connected with needed technical, planning, and grant proposal support via phone, email, and in-person conversations.

8. Provide CBCW interns. Four full-time Limited Term Employees were employed in 2012 to perform boat inspections in all counties. Major focus of inspections were the busiest landings on waterbodies >100 acres, with commitments to prime boating times, such as the July 4th Landing Blitz. One of the LTEs spent 15 hrs/wk focused on Mirror and Shadow Lakes, Waupaca Co.

9. Improve and update public access maps.
Land Conservation and Zoning staff from each county continue to search for and document additional public access locations and plot them on their public access maps.

10. Annual review and update of County AIS Plans.
Each county AIS management plan was reviewed with county Land Conservation staff and appropriate edits were made. Updated AIS plans are available for each county on our website.

11. Work Party "Hit List". AIS incident reports have been compiled into a prioritized "hit list" for volunteer work parties. A list was developed of efforts put forth for each lake, whether a manual removal, or a comment to contact the landowner in the spring, this spreadsheet makes listing goals and follow-up more streamlined and helps target priority lakes. Once outlined, creating a "hit list" and following through with it is the next step.

12. Outreach to bait dealers and garden centers.
In 2011, the Department of Natural Resources (DNR) started a statewide initiative to provide AIS outreach and education both for and through licensed Wisconsin bait dealers. Each bait shop would receive a visit from an AIS coordinator who would give them informative AIS and bait brochures, along with giveaway items for their customers. Cooperating bait shops would receive a certificate of cooperation, as well as have their name listed in an article about the topic for Outdoor News.

Out of the 54 bait shops that had valid licenses on in 2011 in our five counties, we were able to contact and supply information to 28 of them in 2012. The other shops had outdated contact information, were out of business, did not currently sell live bait, were closed much of the season, or were wholesale only. The rest of the shops remaining had expressed an initial interest, but then decided not to put out the information. Out of the 54 shops with licenses, only seven of them chose not to participate. On top of the licensed bait dealers provided by the DNR, there are also places such as Kwik Trip which sell bait. Those locations were visited again in 2013. (Cooperating bait shops are listed in Appendix 7)

13. Assist DNR with Early Detection and Monitoring Surveys. Paul assisted with two early detection surveys, on Alpine Lake and West Branch Millpond in Waushara County.

14. Assist DNR with new AIS sign installations. Landing signs are in the continuous process of being inventoried. New AIS signs were installed where they were needed. Counties have new trout

stream signs, and all signs were posted and locations were reported to the DNR.

WAUPACA COUNTY

1. **Establish countywide email distribution list.** Establish distribution list inclusive of all public access lakes for rapid dissemination of information to lake groups.

MARATHON COUNTY

1. **Collaborate with Lake Management Plan Project.** Marathon County received a grant to write lake management plans for 11 lakes in the county over two years. AIS activities will be part of these plans. The Regional AIS Program will continue to assist in coordinating and carrying out the needed volunteer trainings.

PORTAGE COUNTY

1. **Update AIS inventory, 2012.** Surveys of all public access lakes in all five counties have been completed in past years. Updated surveys were completed for Portage County in 2012. Records were updated accordingly in SWIMS.
2. **Collaborate with Lake Management Plan Project.** Portage County received a grant to write lake management plans for 29 lakes in the county over two years. AIS activities were a part of these plans. The Regional AIS Program continued, and will continue to assist in coordinating and carrying out the needed volunteer trainings.

WAUSHARA COUNTY

1. **Update AIS inventory, 2013.** Surveys of all public access lakes in all five counties have been completed in past years. Updated surveys were completed for Waushara County in 2013. Records were updated accordingly in SWIMS.
2. **Collaborate with Lake Management Plan Project.** Waushara County received a grant to review lake management plans for 31 lakes in the county over two years. AIS activities will be part of these plans. The Regional AIS Program will assist in planning and coordinating AIS activities, and has already assisted in planning meetings.

WOOD COUNTY

1. **Rusty crayfish trapping as an educational program.** A volunteer effort to trap rusty crayfish in the Yellow River near Pittsville was once again performed by a group of Todd Steward's biology students. These students were required to select a type of bait that they brought from home, and small groups of students were assigned a specially designed, trapezoidal crayfish trap to place in the river. Students had to select where they would place their traps, and check them every other day to remove their catch. All species were removed from the traps during each trap checking period. Native crayfish were to be noted if they were caught, but none were caught in 2012 or 2013. Rusty crayfish data collected included # caught, length, sex, and for females, whether they were carrying eggs - "in berry". Wood County (Tracy Arnold, Conservation Technician) has compiled this data and reported to DNR.

Project Deliverables:

Regional AIS Inventory – For all counties. All data will be updated and available through SWIMS by the time of completion.

Final Report – A summary report of AIS activities and results, including all EWM or CLP maps produced, county AIS maps, lists of bait dealers and garden centers contact, and photographs of volunteer and workshop activities.

Description of Data to be Collected:

AIS plant mapping: Presence and relative abundance of the subject plant will be recorded using the units described in Table 2. GPS data will be used by county GIS personnel to create GIS maps that will be overlain on color air photos and depth contour lines (where available). Total plant coverage (depicted at respective abundance levels) will be reported in acres.

AIS reporting: New occurrences will be reported to SWIMS. Vouchers will be retained and filed as instructed by DNR.

Weevil population density: Average weevils per stem will be reported both at the bed level and at the whole lake level, and will be calculated as Total # Weevils/Total # Stems. Data will be spatially displayed over airphotos.

Photographic documentation: When needed, photographs will be taken using a digital camera.

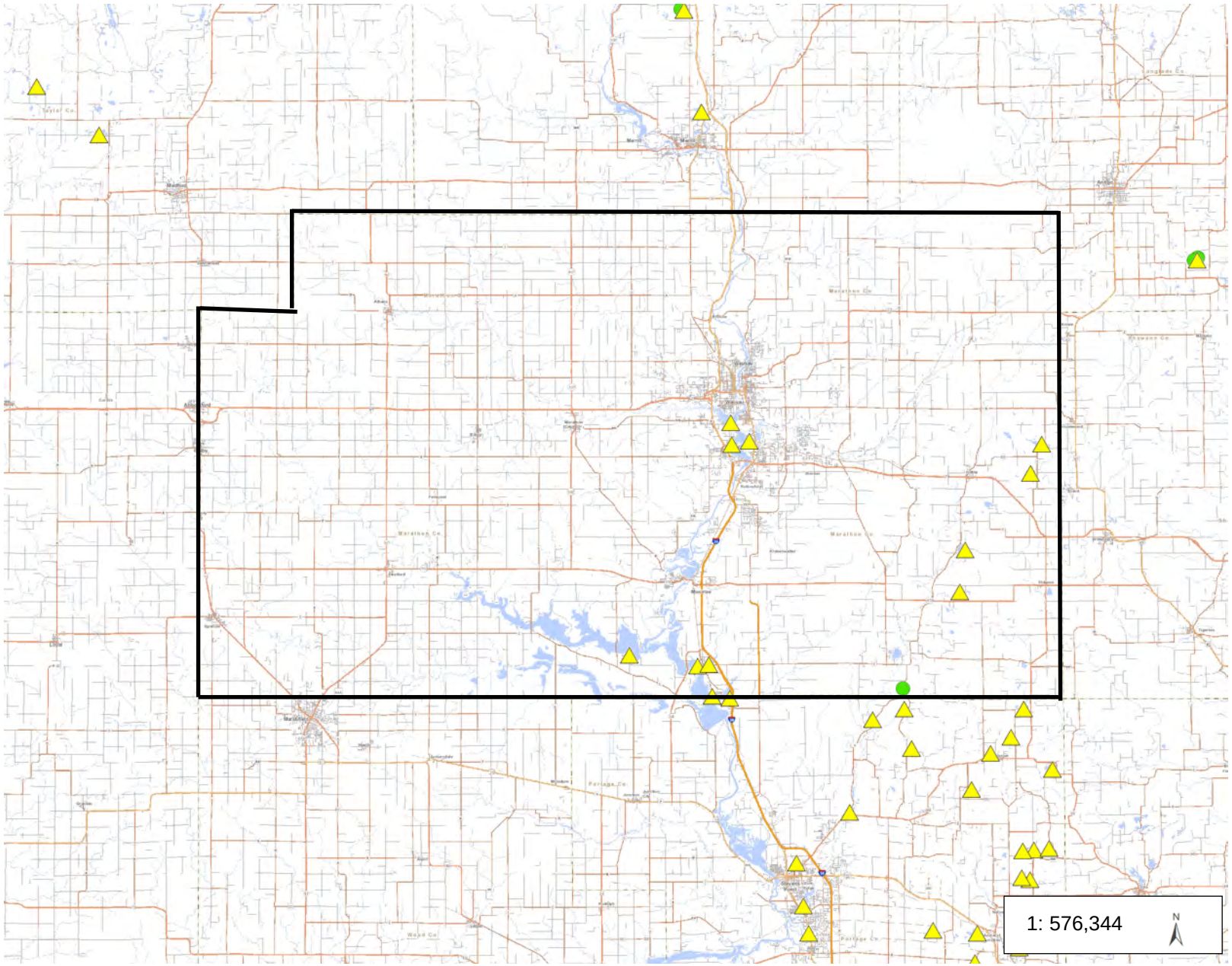
Volunteer activity: May be recorded through volunteer logs, meeting minutes, workshop registrations, and photographs.

CBCW inspection records: Standard CBCW report logs will be filled out and logged into SWIMS.

Appendix 1

Countywide Volunteer Maps

Marathon County CLMN and CBCW Volunteers



Legend

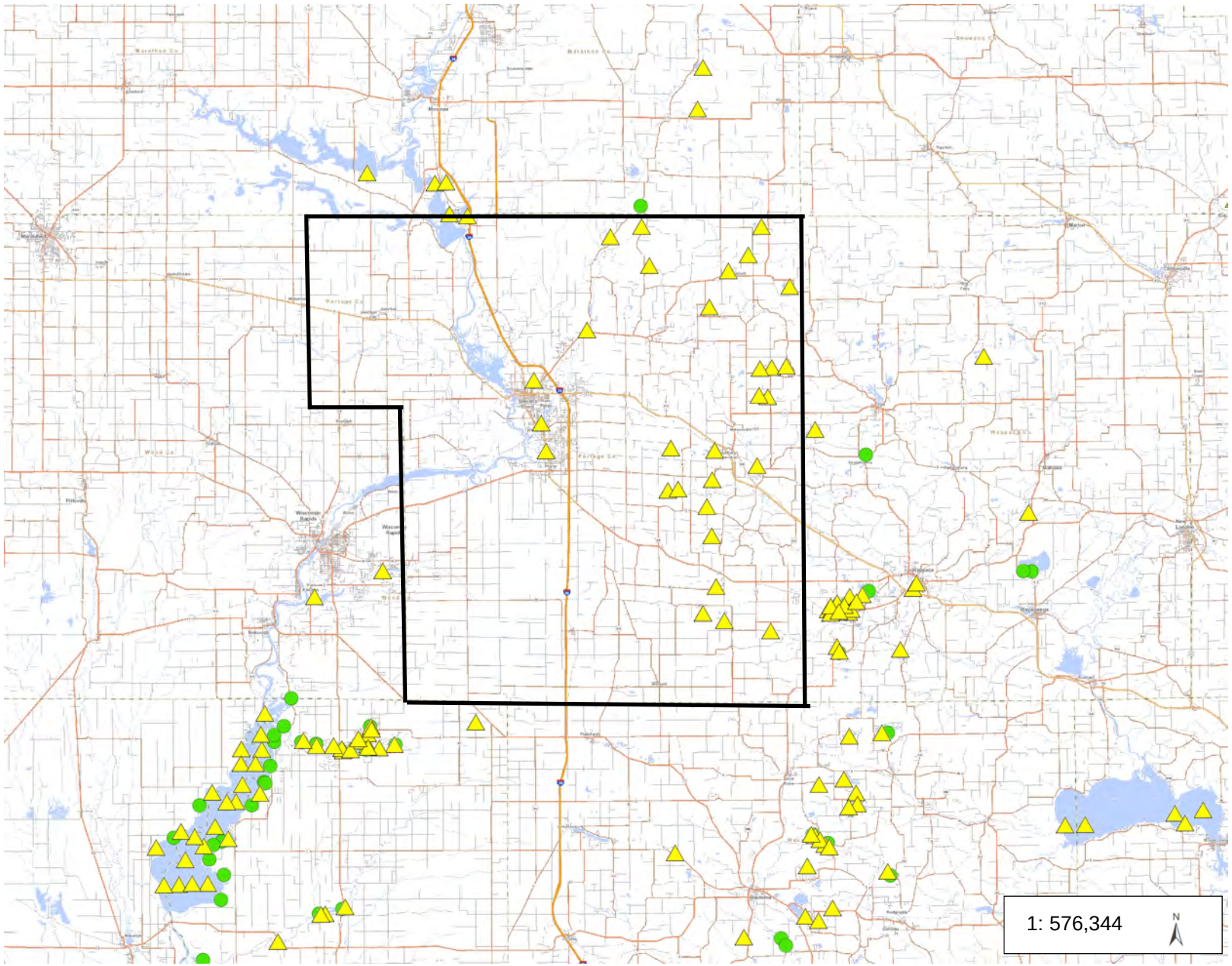
- Volunteer Water Quality Monit
- Watercraft Inspection Sites (Vo

Notes

18.2 0 9.10 18.2 Miles

NAD_1983_HARN_Wisconsin_TM

Portage County CLMN and CBCW Volunteers



Legend

- Volunteer Water Quality Monit
- Watercraft Inspection Sites (Vo

Notes

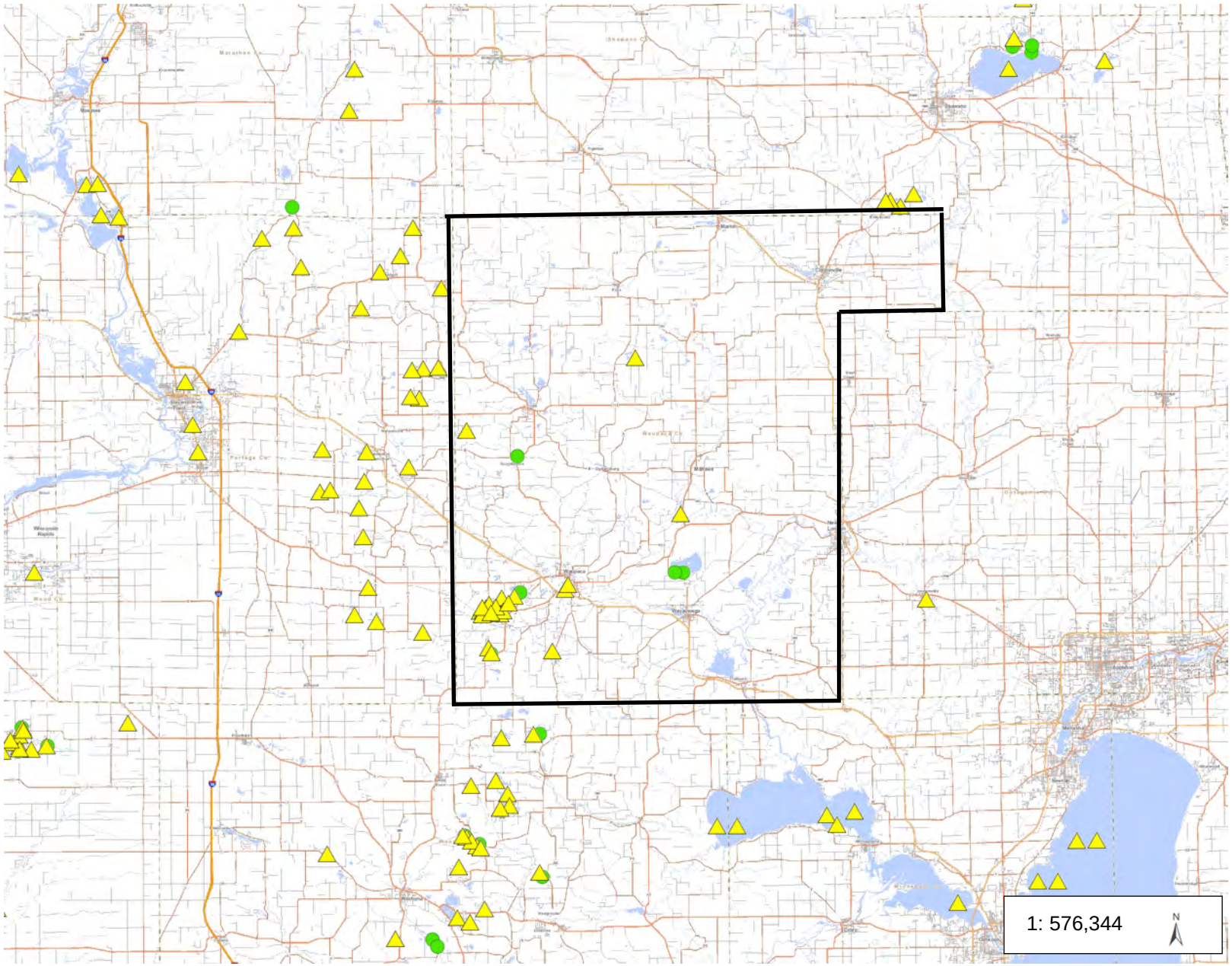
1: 576,344

N

18.2 0 9.10 18.2 Miles

NAD_1983_HARN_Wisconsin_TM

Waupaca County CLMN and CBCW Volunteers



Legend

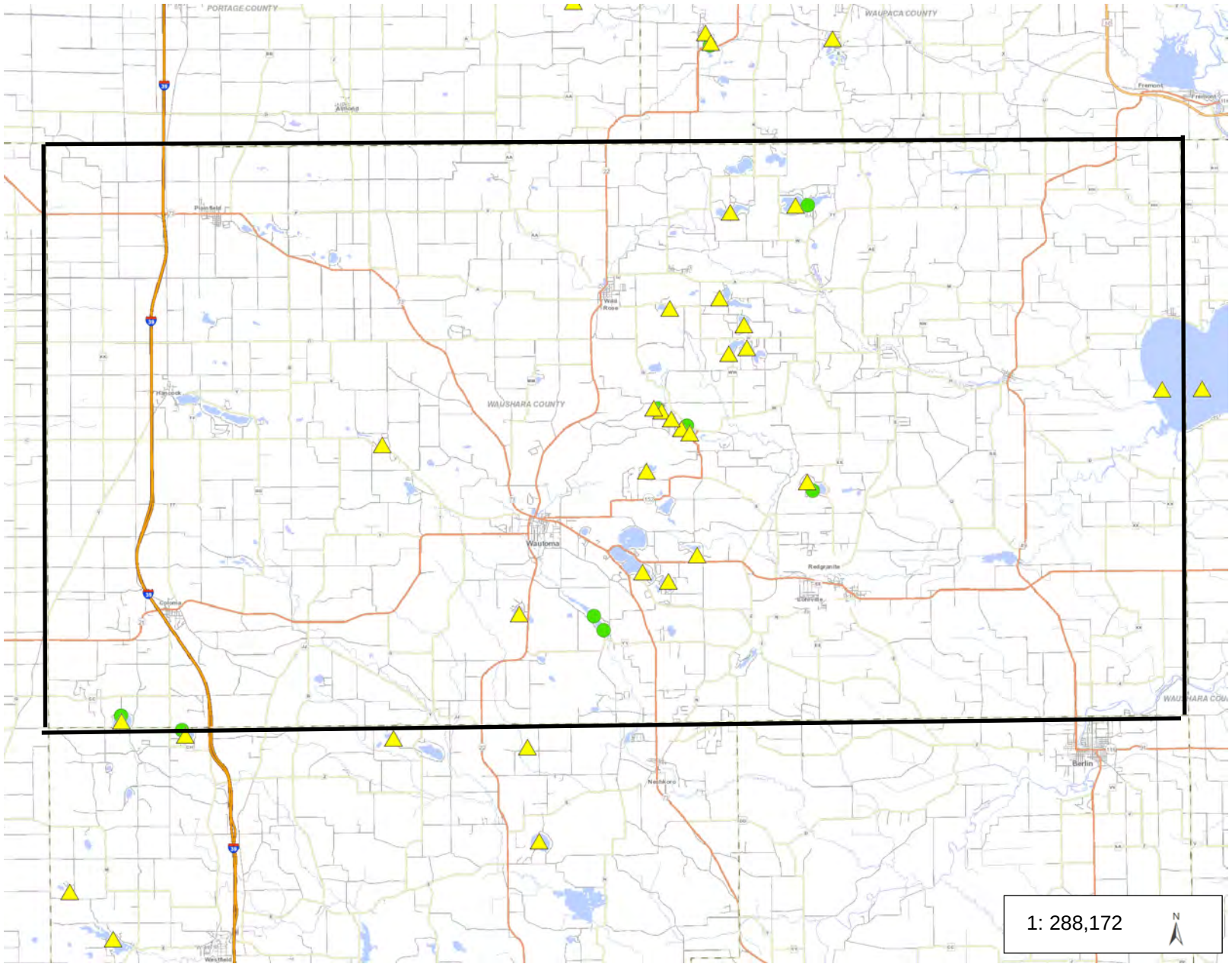
- Volunteer Water Quality Monit
- Watercraft Inspection Sites (Vo

Notes

18.2 0 9.10 18.2 Miles

NAD_1983_HARN_Wisconsin_TM

Waushara County CLMN and CBCW volunteers



Legend

- Volunteer Water Quality Monit
- Watercraft Inspection Sites (Vo

Notes

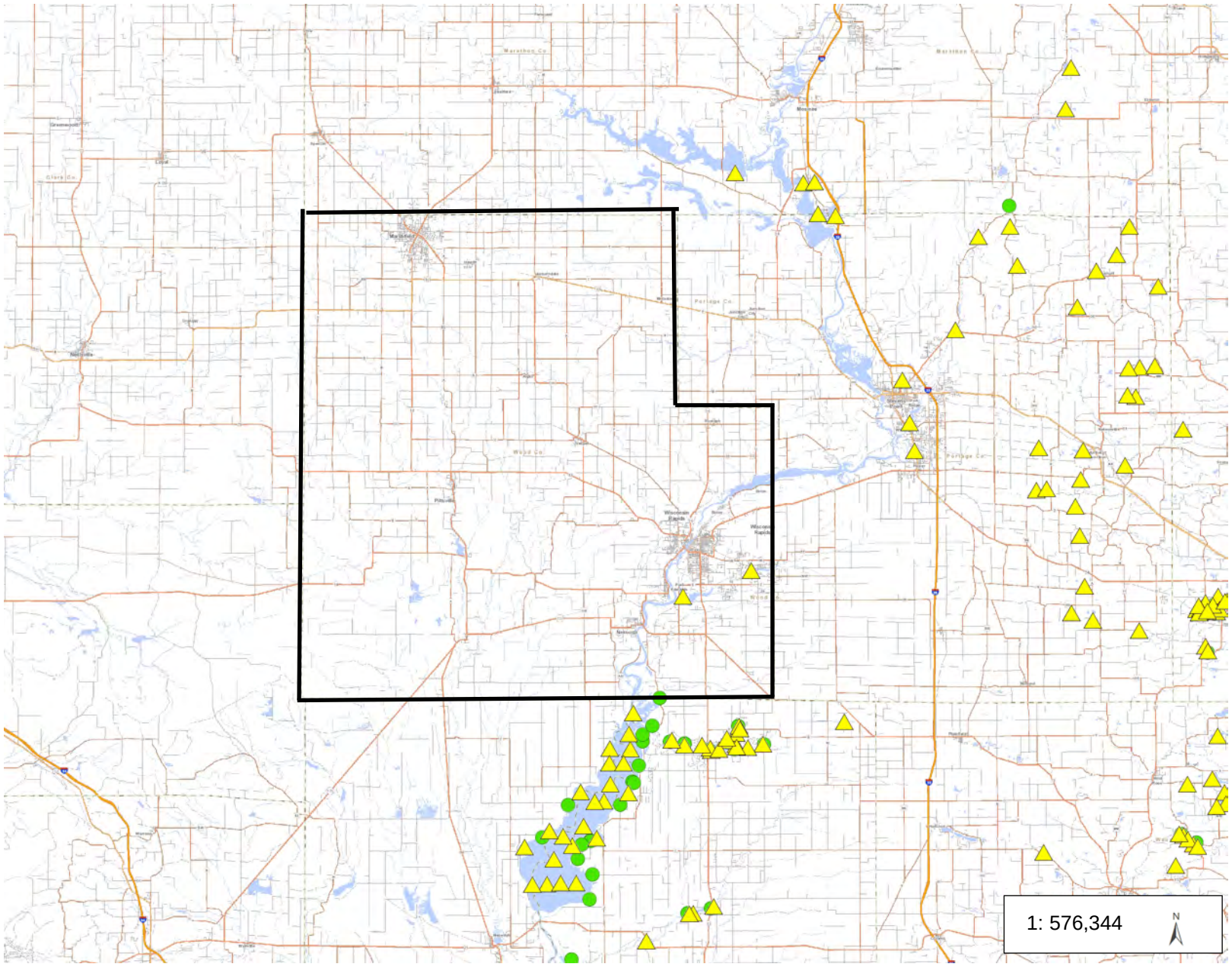
1: 288,172

N

9.1 0 4.55 9.1 Miles

NAD_1983_HARN_Wisconsin_TM

Wood County CLMN and CBCW Volunteers



Legend

- Volunteer Water Quality Monit
- Watercraft Inspection Sites (Vo

Notes

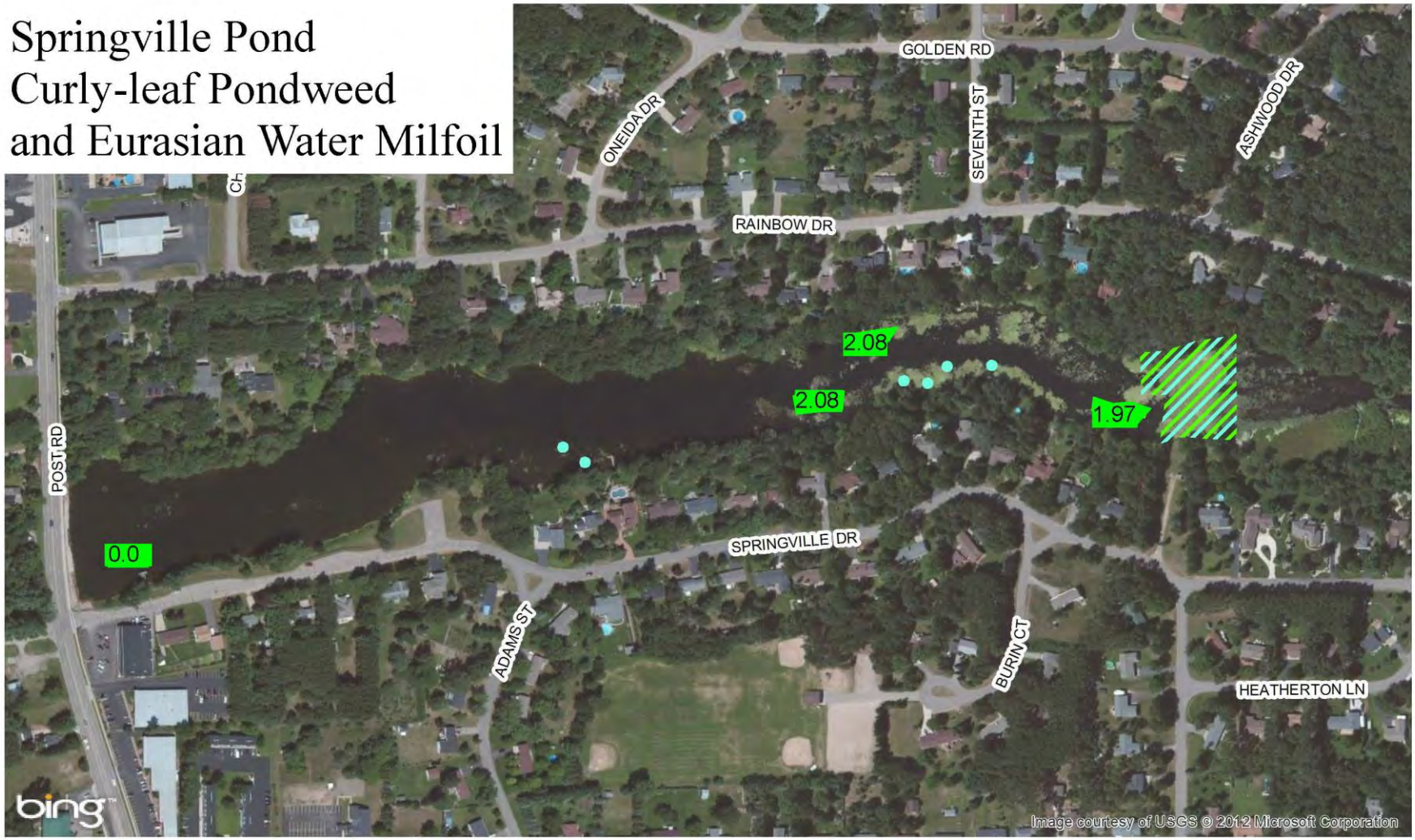
18.2 0 9.10 18.2 Miles

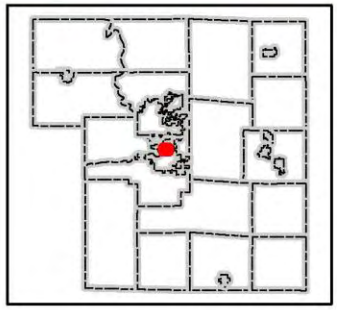
NAD_1983_HARN_Wisconsin_TM

Appendix 2

Milfoil Weevil Surveys

Springville Pond
Curly-leaf Pondweed
and Eurasian Water Milfoil





Eurasian Water Milfoil

Curly-leaf Pondweed

*Rest of the Lake has Eurasian water milfoil lightly scattered throughout. Map shows dense beds and average weevils/stem.

Collected July 23, 2012
with a Garmin GPSmap 62st

Date of Photography: Summer 2011

Location:
Village of Plover
Town 23N Range 08E Section 15
Portage County, Wisconsin

N

Feet

0 100 200 300

Printed: August 10, 2012

Waterbody: **Springville Pond**
Sample Date: 7/23/2012

Ave. # weevils per stem: **1.88**

Lab Date	Bed No.	Point No.	Stem No.	Length (in)	Algae/Marl Covered (1=yes, 0=no)	# Broken Tips	# Apical Tips	Weevil Damage? pinholes present*	holes present*	tunnels present*	dmg meris present*	# Eggs	# Larvae	# Pupae	# Adults	Total Weevils per bed	Comments
9/7/12	2	(E. side of Bed #1)	30	25	1	*	*	1	1	1	1	38	16	0	5	59	Bed on east side of Bed #1. Phytobius pupal chambers (1), not enough alcohol, so sample is stinky, but not deteriorated. Strange other larvae in stem tunnels, no head capsule, butt nubbins, brown mottling (trichoptera, maybe, but in-stem? Weird.) White and black eggs (?) attached to weevil eggs.
9/11/12 9/18/12	3 1	(On N side) (Just E of boat landing)	30 30	25	1	*	*	1	1	1	1	97	9	8	11	125	Bags 1 and 3 combined (mixed up by mistake, marker washed off #3.) -- Eggs found on new flower buds co-habitating with eggs on meristem leaves = presumed to be E. lecontei
11/30/12	4	(Near dam)	8	*	*	1	*	0	1	1	0	0	0	0	0	0	Sparse-- stems opaque and friable. Phyobius pupal chamber. No pinholes or damaged meristems found.
		Totals =	98									135	25	8	16		
		Averages per stem =										1.39	0.26	0.09	0.16		

1 = present, 0 = not present
* - Stems broken. Cannot document.
NWM - Northern Water Milfoil stem
EWM - Eurasian Water Milfoil stem

Total weevils (all life stages) = 184
Ave Weevils Per Stem (8/69) = **1.88**
Statewide average = 0.65

Survey Notes: Stem length collected = 25". Bed 2 average = 1.97 N/stem, Bed 1&3 combined average = 2.08, Bed 4 average = 0 N/stem.

Appendix 3

Portage County AIS Maps

Amherst Millpond, Portage County AIS survey results
July 18th, 2012
Conducted by Kaycie Stushek, Golden Sands RC&D

During the course of the survey, observed native aquatic plants were also recorded.

AIS & Aquatic Plant List (AIS highlighted in red and marked with an asterisk*)

Small duckweed
Large duckweed
Common waterweed
Coontail
White water crowfoot
Bullhead lily
Sago pondweed
Flat-stemmed pondweed
Watermeal
Water celery
Striped White water lily
***Banded mystery snail**
***Curly leaf pondweed**
***Rusty Crayfish**
***Purple loosestrife**

Notes:
Curly leaf pondweed was prevalent throughout the lake, but concentrated along the upper and middle section of the mill pond. It was also sparse throughout the channel. Much of the curly leaf pondweed was dying or had died recently. Common waterweed and coontail were both abundant throughout the system. There was a very high amount of banded mystery snails throughout the lake as well. One purple loosestrife plant was found flowering, and the stalks all were broken to prevent it from going to seed.

The water was also murky, and there was a large population of kingfishers throughout the mill pond.

Bear Lake, Portage County AIS survey results
June 15th, 2012
Conducted by Paul Skawinski and Kate Carson, Golden Sands RC&D

During the course of the survey, observed native aquatic plants were also recorded.

AIS & Aquatic Plant List in order of observance (AIS highlighted in red and marked with an asterisk*)

***Chinese mystery snail**
Common waterweed
Coontail
Purple-fringed Riccia
Striped white water lily
Watershield
Large-leaf pondweed
Small duckweed
Flat-leaf bladderwort
***Eurasian watermilfoil**
Variable pondweed
Illinois pondweed
Bullhead pond lily
Creeping bladderwort
Northern manna grass
Water smartweed
White-stem pondweed
Floating-leaf pondweed
Stiff pondweed
Creeping spikerush
Leafy pondweed
Softstem bulrush
*Reed canary grass
Water bulrush
Aquatic moss (*Drepanocladus* sp.)
Flat-stem pondweed
Common bladderwort
Small pondweed
Small bladderwort
Oakes' pondweed

Notes:
Water level at Bear Lake was up several feet from past years. Clumps of Eurasian watermilfoil (EWM) were primarily singular, without any true "beds" observed. Only a few fragments of EWM were found among the watershield leaves, which were all removed. In past years, fragments were abundant throughout the watershield leaves around much of the lake. A few Chinese mystery snail shells were observed near the boat landing, but no live individuals were detected.
An herbicide treatment was performed in May 2012. The treatment appears to have been very successful, with only a couple dozen individual EWM clumps observed in the lake. A hand-pulling effort could remove most of these, while a SCUBA diver would be required for a few deeper clumps. Each location of EWM was recorded with a GPS unit, and a map will be created and sent out next week.

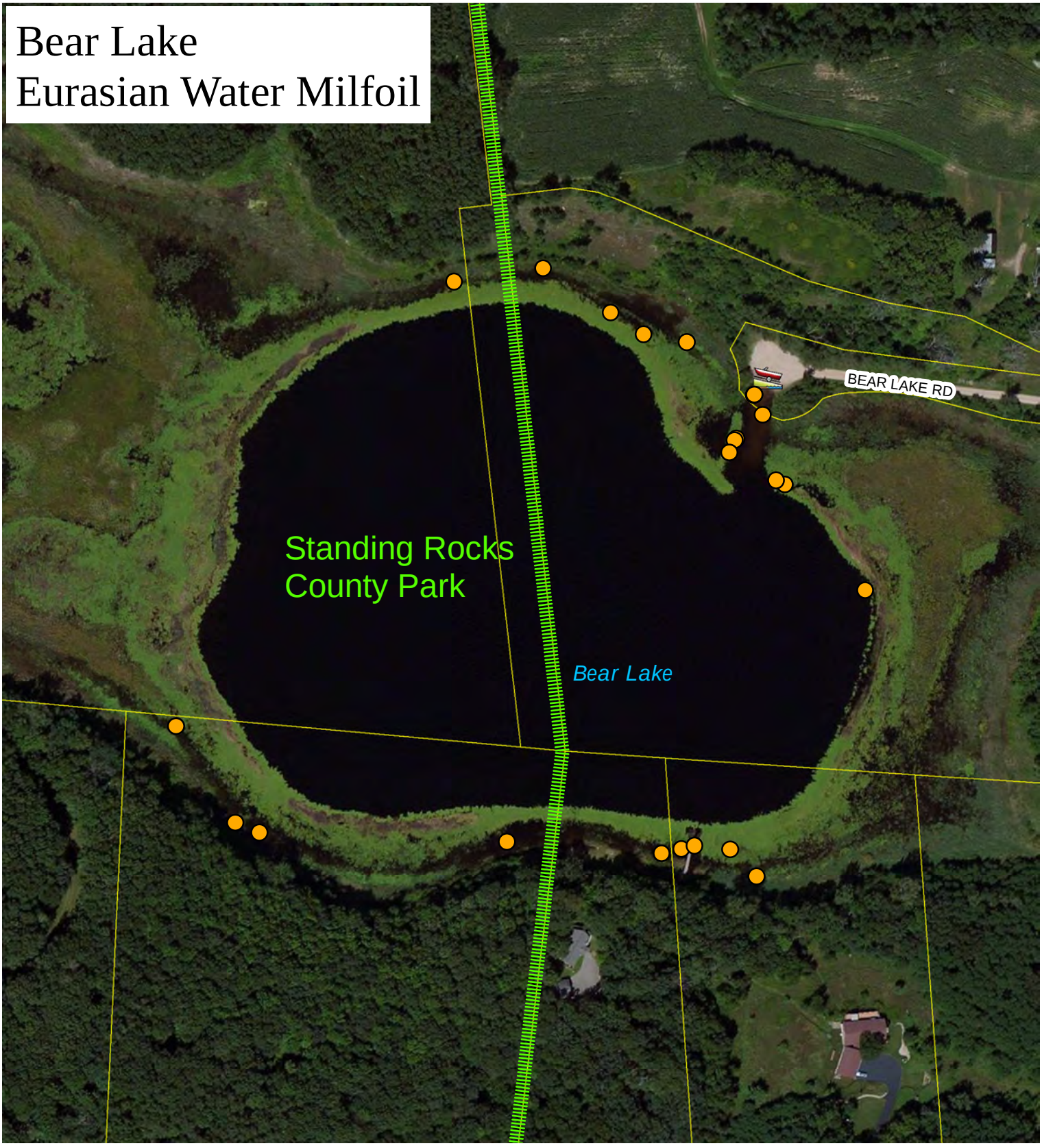
Some newly flooded areas were dominated by species that are very uncommon in central Wisconsin, including water bulrush, small bladderwort, aquatic moss, and flat-leaf bladderwort. Oakes' pondweed was also found on the east end of the lake. A few large stands of softstem bulrush occur along the north side of the lake.

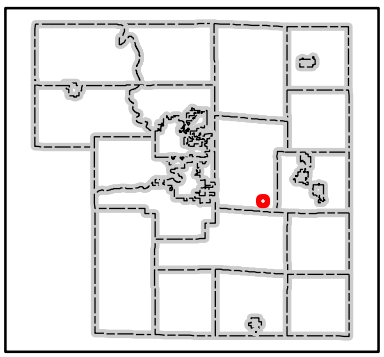
A rake was dropped and pulled for a short distance (4-5ft) through the herbicide treatment area to the east of the boat landing. In this area, the water is too deep to detect EWM by a visual survey alone. Rake drops occurred 16 times in 7 to 18 feet of water. EWM was found on 1 of the 16 rake drops. This point was recorded with a GPS unit to be added to the map. The treatment area appears to have been well colonized by several native species, which will be crucial to prevent EWM from re-colonizing the area. Large-leaf pondweed and coontail were abundant throughout this area. The coontail showed some symptoms of exposure to 2,4-D, but appears to be doing fine. All EWM plants observed during the survey also showed symptoms of 2,4-D exposure, but were surviving. None of the bladderwort species or other dicots showed any symptoms of 2,4-D exposure.

The species found on each rake drop are listed below:

1) Large-leaf pondweed, coontail
2) Large-leaf pondweed, coontail
3) Watershield
4) Large-leaf pondweed
5) Coontail
6) Large-leaf pondweed, coontail
7) EWM, coontail
8) Large-leaf pondweed, coontail, common waterweed
9) Large-leaf pondweed, coontail
10) Large-leaf pondweed, coontail, watershield
11) Large-leaf pondweed, coontail
12) Large-leaf pondweed, coontail
13) Coontail, watershield
14) Coontail
15) Large-leaf pondweed, coontail, white-stem pondweed
16) Aquatic moss (*Drepanocladus* sp.)

Bear Lake
Eurasian Water Milfoil





● Eurasian Water Milfoil

Location:
Town of Stockton
Town 23N Range 09
Sections 27 and 34
Portage County, Wisconsin

Collected June 15, 2012
with a Garmin GPSmap 62st

Date of Photography: Summer 2011

N

Feet

0 100 200 300 400

Printed: June 27, 2012

Collins Lake, Portage County AIS survey results
June 5th, 2012
Conducted by Paul Skawinski, Golden Sands RC&D

During the course of the survey, observed native aquatic plants were also recorded.

AIS & Aquatic Plant List (AIS highlighted in red and marked with an asterisk*)

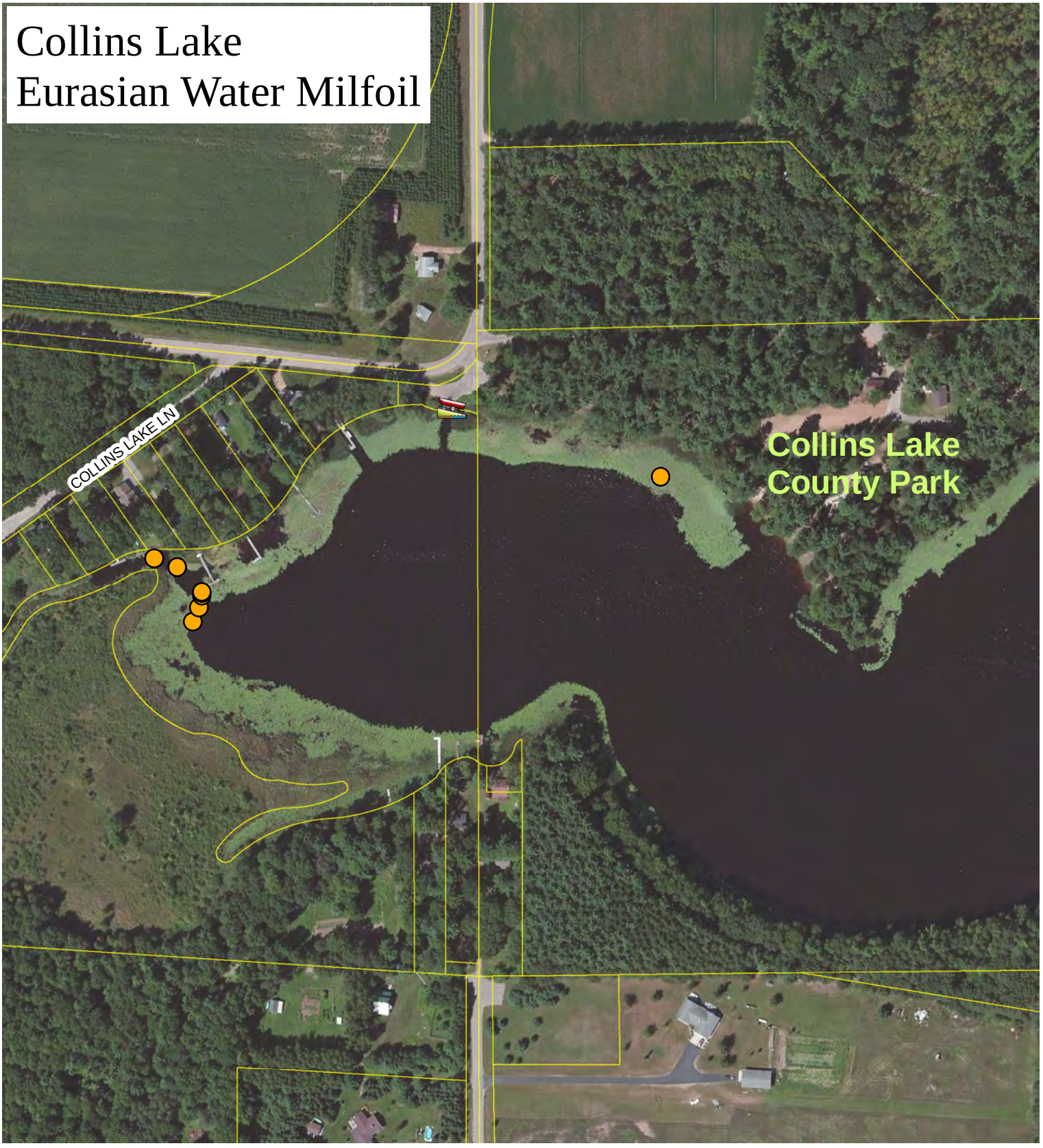
Large-leaf pondweed
Common bladderwort
Coontail
Common waterweed
Small duckweed (*Lemna minor*)
Striped white water lily (*Nymphaea odorata* subsp. *tuberosa*)
Aquatic moss (*Drepanocladus* sp.)
Fries' pondweed
Eurasian watermilfoil*
Fern pondweed
Variable pondweed
Water smartweed
Flat-stem pondweed
Water marigold
Small pondweed
Bullhead pond lily
Watershield
White water crowfoot
Narrow-leaf bur-reed
Northern watermilfoil
Creeping spikerush
Leafy pondweed

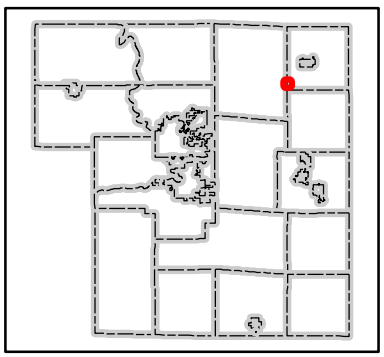
Notes:

Eurasian watermilfoil was hand-pulled several times throughout 2009 and 2010. It was not detected in 2011, but was once again found during this survey. About 10 plants were discovered in the same area as they have been in the past. All were hand-pulled. A few northern watermilfoil plants closely resembled Eurasian watermilfoil; they were treated as hybrid EWM/NWM and were pulled. Monitoring will continue.

Filamentous algae was abundant throughout the lake. Collins Lake's aquatic plant community is still above average, but rare species detected in the past (flat-leaf bladderwort, large purple bladderwort, golden pert) were not detected during this survey. Inlets on both sides of the farm on the NE side of the lake were surrounded by extensive mats of coontail and duckweed, suggesting high-nutrient conditions.

Collins Lake
Eurasian Water Milfoil





● Eurasian Water Milfoil

Location:
Towns of Sharon and Alban
Town 25N Range 09E Section 36
Town 25N Range 10E Section 31
Portage County, Wisconsin

Collected June 12, 2012
with a Garmin GPSmap 62st

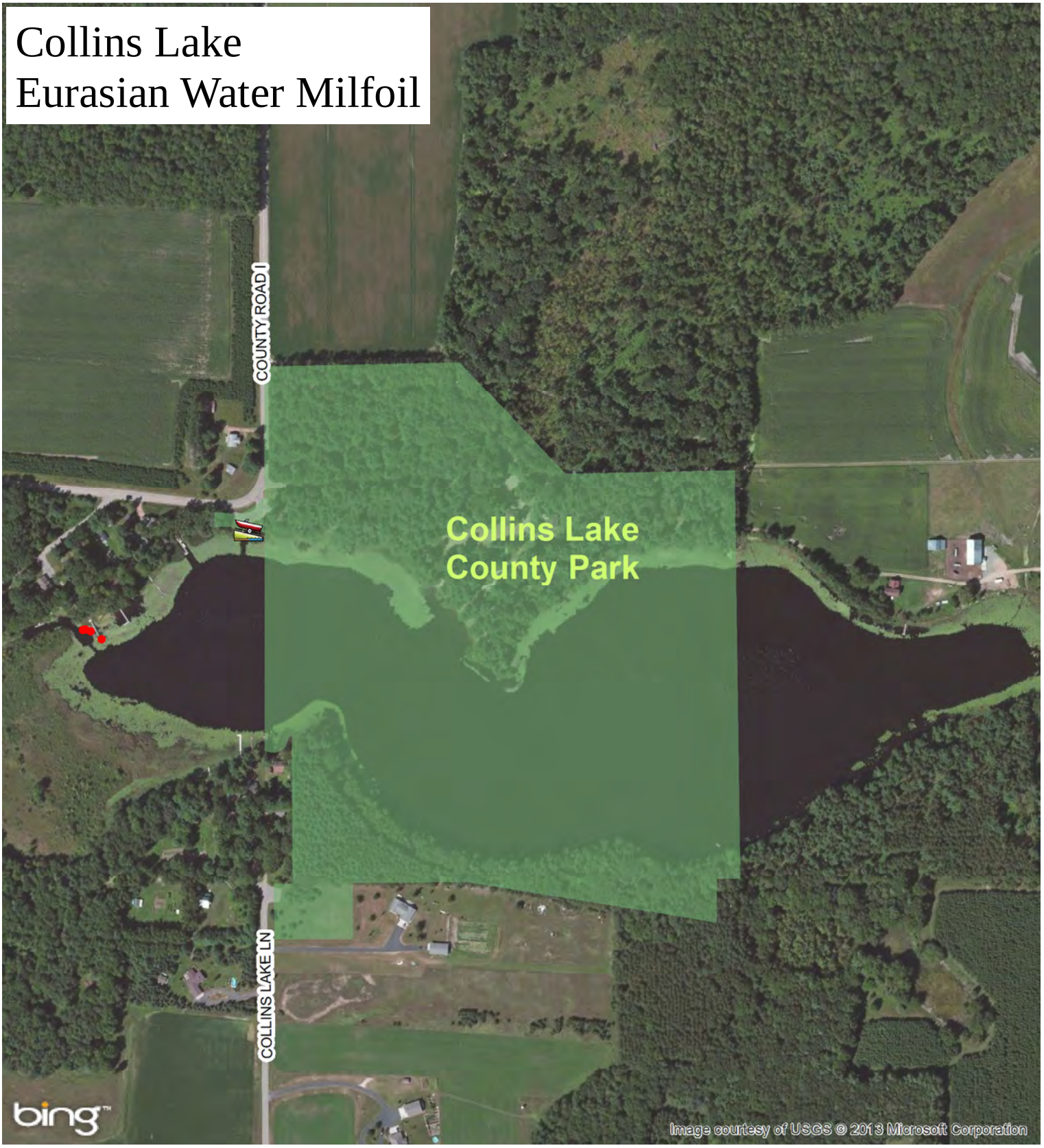
Date of Photography: Summer 2011

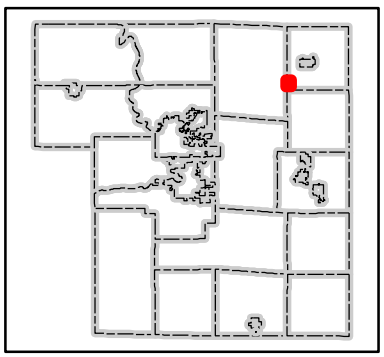
N

Feet
0 100 200 300 400

Printed: June 27, 2012

Collins Lake
Eurasian Water Milfoil





Eurasian Water Milfoil

Collected June 12, 2013
with a Garmin GPSmap 62st

Date of Photography: Summer 2011

Location:
Towns of Sharon and Alban
Town 25N Range 9E Section 36 and
Town 25N Range 10E Section 31
Portage County, Wisconsin

N

Feet
0 100 200 300

Printed: July 16, 2013

Lake Emily, Portage County AIS survey results
June 21, 2012
Conducted by Kaycie Stushek, Golden Sands RC&D

During the course of the survey, observed native aquatic plants were also recorded.

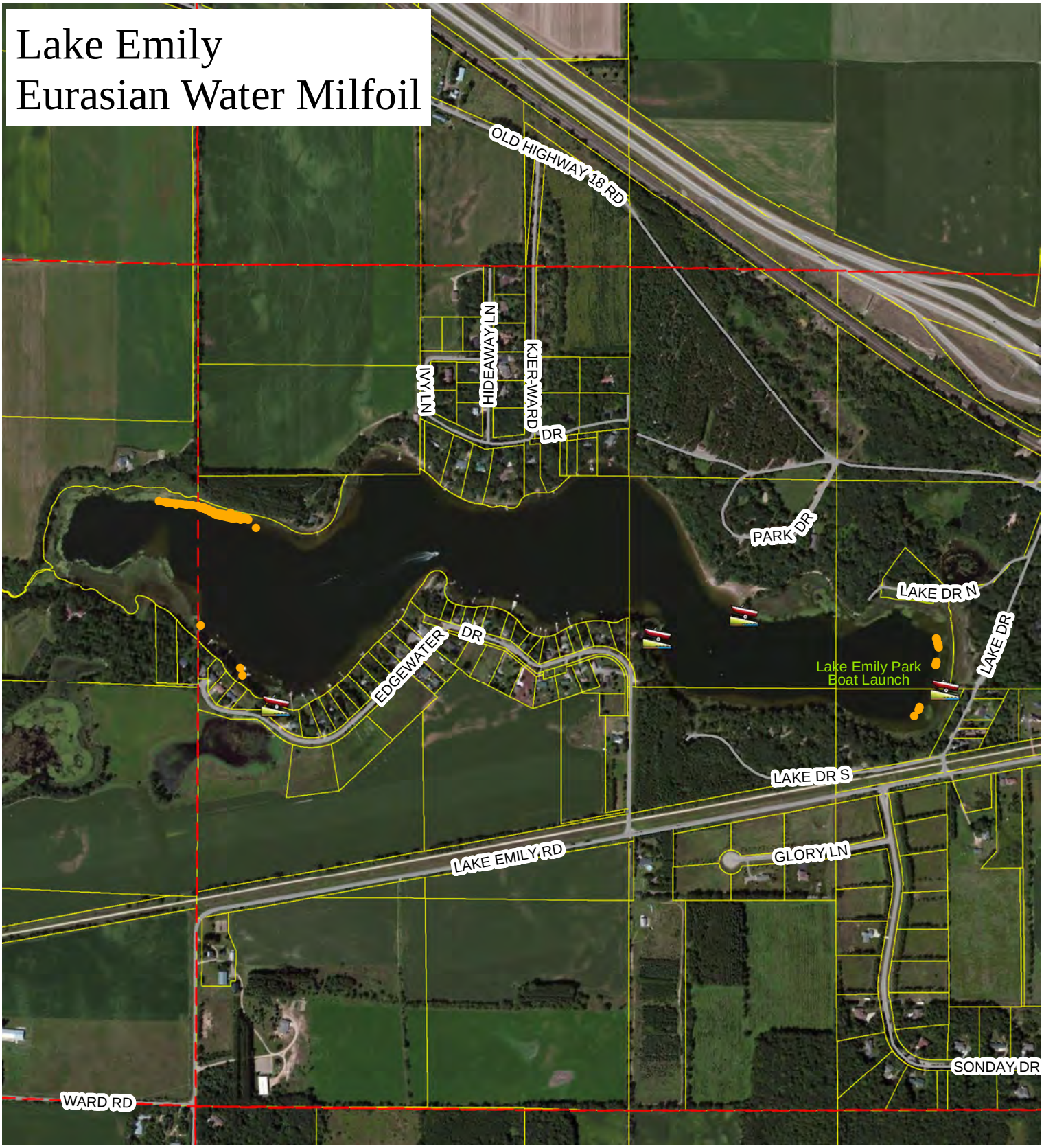
AIS & Aquatic Plant List (AIS highlighted in red and marked with an asterisk*)

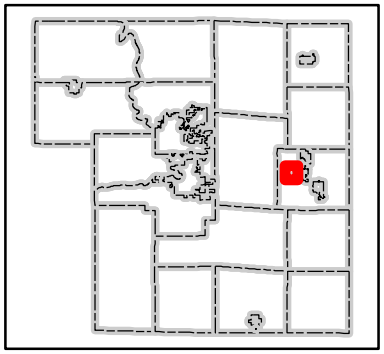
Watershield
Coontail
Chara
Common waterweed
Water marigold
Slender naiad
Northern Watermilfoil
***Eurasian Watermilfoil**
***Eurasian watermilfoil/Northern watermilfoil Hybrid**
Bullhead pond lily
White water lily
Large leaved pondweed
Fries Pondweed
Variable pondweed
Illinois pondweed
Water smartweed
Floating-leaf pondweed
Flat-stemmed pondweed
Water celery

Notes:

Eurasian Watermilfoil EWM Hybrid has been present in the lake for years. The northwestern end, along with the boat landing on the east side has historically contained the EWM Hybrid. A chemical treatment in 2012 revealed success in ridding the east side of EWM. The northwestern research bay has EWM that does not get treated with herbicides. The northwestern population is partially fed by the EWM in the bay. The northwestern population was greatly reduced as a result of the chemical treatment in 2012. There are some spots with a few EWM plants on the southwestern side that can be hand pulled. Also on the south side of the lake, on the western side, there are a few EWM plants that were newly discovered in 2012 that can be hand pulled in 2013.

Lake Emily
Eurasian Water Milfoil





● Eurasian Water Milfoil

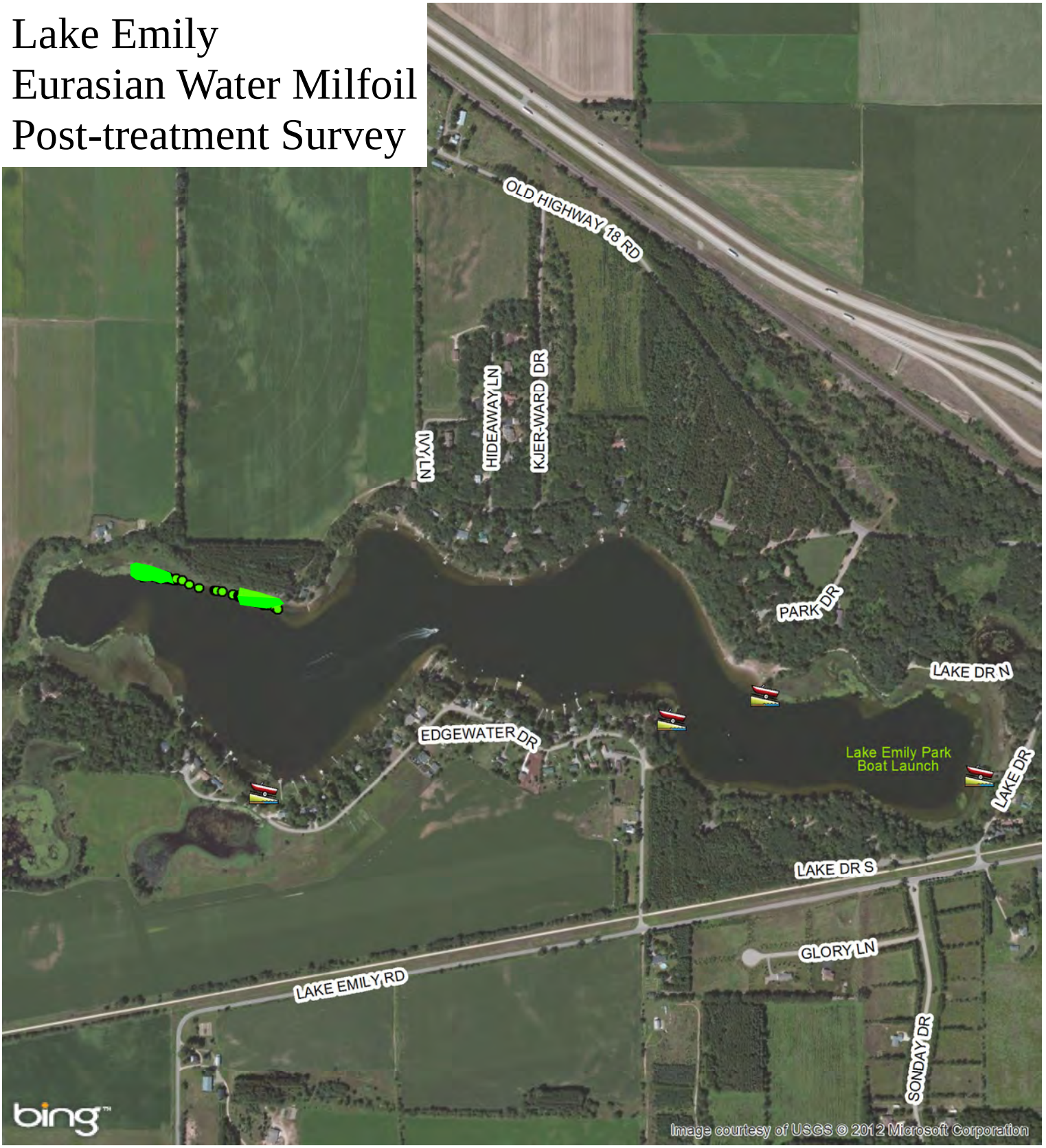
Location:
Town of Amherst
Town 23N Range 9E Section 13
and Range 10E Section 18
Portage County, Wisconsin

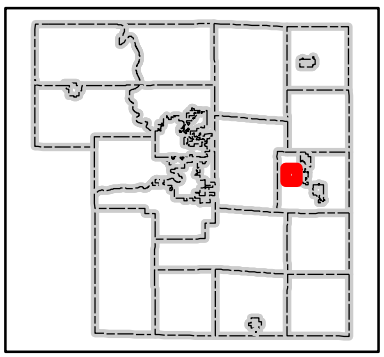
Collected May 16, 2012
with a Garmin GPSmap 76

Feet
0 200 400 600 800

Printed: May 24, 2012
Date of Photography: Summer 2011

Lake Emily
Eurasian Water Milfoil
Post-treatment Survey





● Eurasian Water Milfoil

Collected June 21, 2012
with a Garmin GPSmap 62st

Date of Photography: Summer 2011

Location:
Town of Amherst
Town 23N Range 09E Section 13
Town 23N Range 10E Section 18
Portage County, Wisconsin

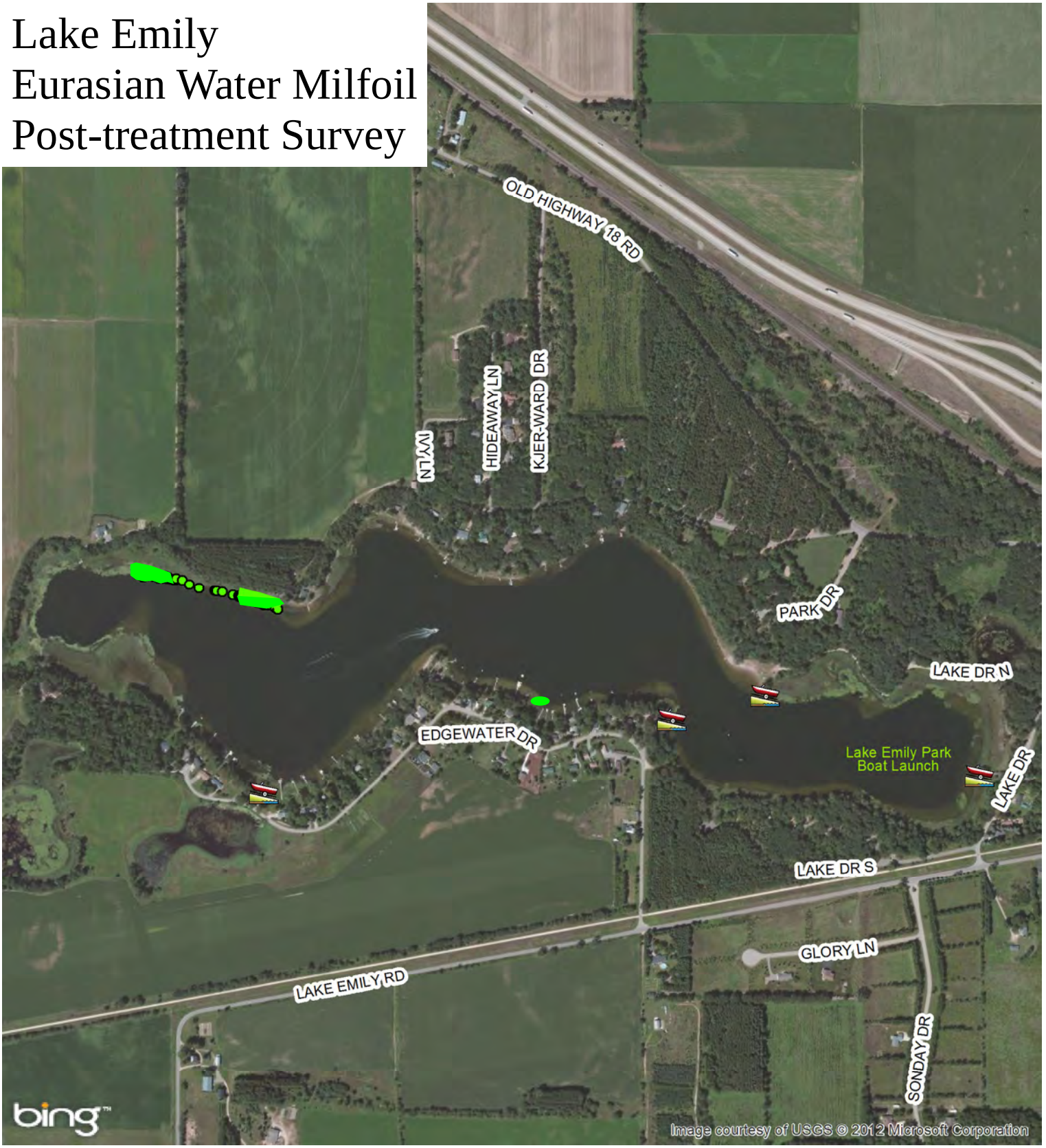
N

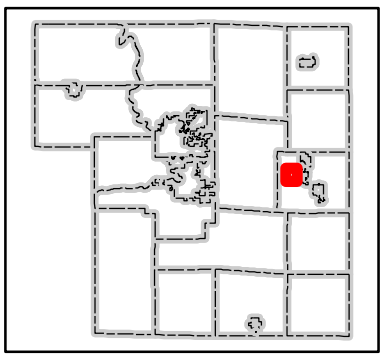
Feet

0 300 600 900

Printed: July 23, 2012

Lake Emily
Eurasian Water Milfoil
Post-treatment Survey





● Eurasian Water Milfoil

0.25 acres total

Collected June 21, 2012
with a Garmin GPSmap 62st

Date of Photography: Summer 2011

Location:
Town of Amherst
Town 23N Range 09E Section 13
Town 23N Range 10E Section 18
Portage County, Wisconsin

N

Feet

0 300 600 900

Printed: July 23, 2012

Fountain Lake, Portage County AIS survey results
July 6th , 2012
Conducted by Savanna Dahl, Golden Sands RC&D

During the course of the survey, observed native aquatic plants were also recorded.

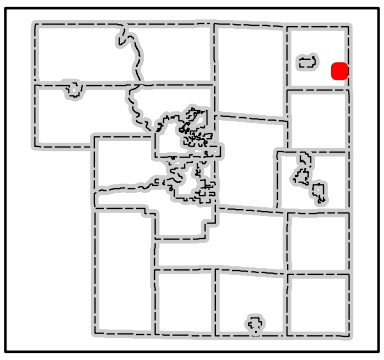
AIS & Aquatic Plant List (AIS highlighted in red and marked with an asterisk*)

Illinois pondweed
Chara
Sago pondweed
Fries' pondweed
Coontail
Northern watermilfoil
Variable pondweed
Whorled watermilfoil
Water smartweed
Bullhead pond lily
*Banded mystery snail

Notes:

No aquatic invasive species are present at this lake, except for banded mystery snails.

Lake Helen
Eurasian Water Milfoil



Eurasian Water Milfoil

Collected June 12, 2013
with a Garmin GPSmap 62st

Date of Photography: Summer 2011

Location:
Town of Alban
Town 25N Range 10E
Sections 25 and 26
Portage County, Wisconsin

N

Feet
0 100 200 300

Printed: July 16, 2013

Jacqueline Lake, Portage County AIS survey results
June 22nd, 2012
Conducted by Kaycie Stushek, Golden Sands RC&D

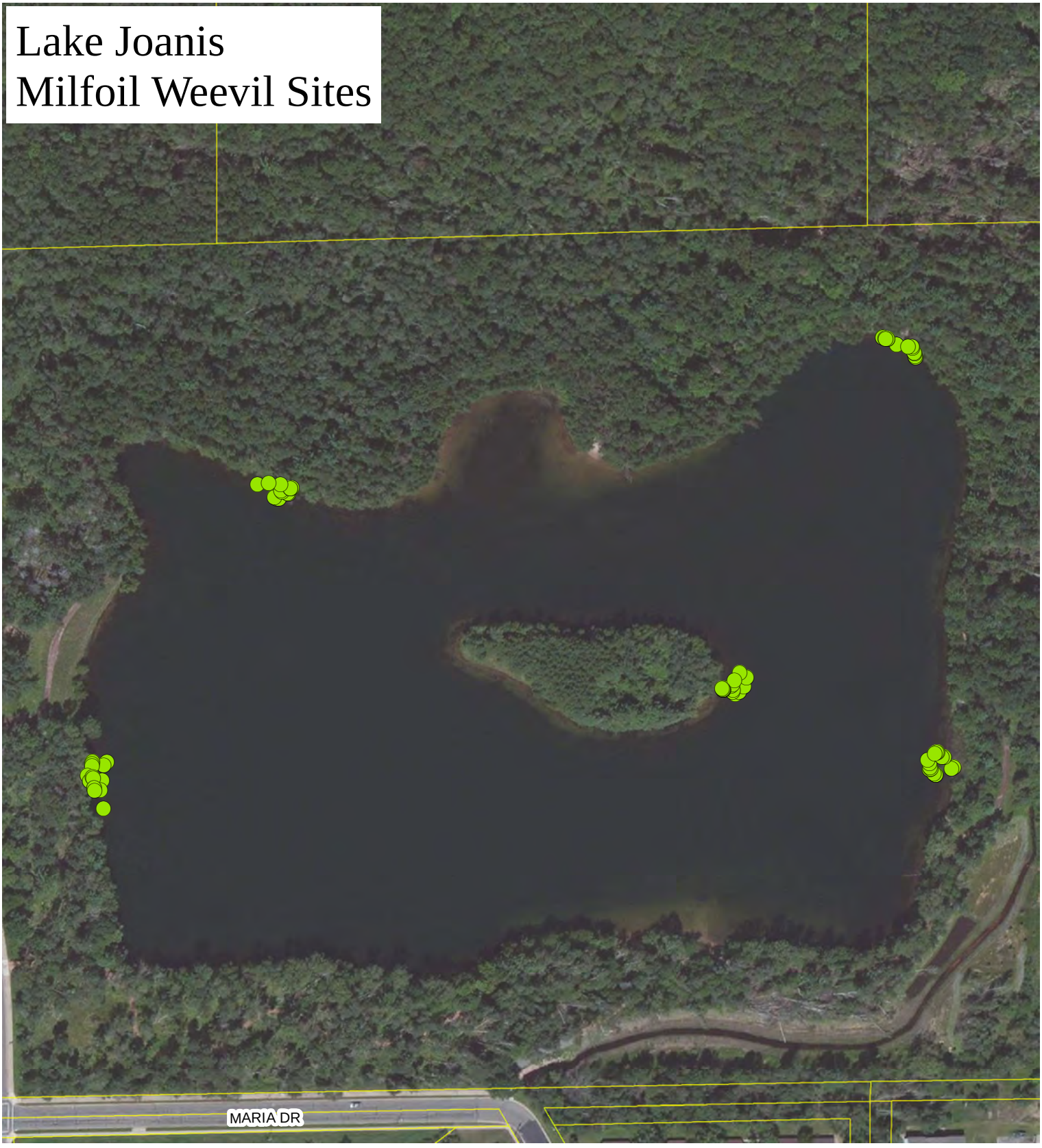
During the course of the survey, observed native aquatic plants were also recorded.

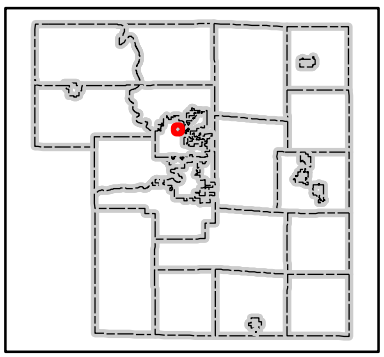
AIS & Aquatic Plant List (AIS highlighted in red and marked with an asterisk*)

Large purple bladderwort
Watershield
White water lily
Arrowhead
Floating leaf pondweed
Ribbon leaf pondweed
Water smartweed
Large leaf pondweed
Small purple bladderwort
Spike rush
Water bull rush
Common bladderwort
Bullhead pond lily

Notes:

Lake Joanis
Milfoil Weevil Sites





Weevil Sample Points

Location:
City of Stevens Point
Town 24N Range 08E
Section 28
Portage County, Wisconsin

Collected June 4, 2012
with a Garmin GPSmap 62st

Date of Photography: Summer 2011

N

Feet

0 100 200 300 400

Printed: June 27, 2012

Jordan Pond, Portage County AIS survey results
July 23th, 2012
Conducted by Kaycie Stushek, Golden Sands RC&D

During the course of the survey, observed native aquatic plants were also recorded.

AIS & Aquatic Plant List (AIS highlighted in red and marked with an asterisk*)

Small duckweed
Large duckweed
Common waterweed
Coontail
Bullhead lily
Sago pondweed
Flat-stemmed pondweed
Watermeal
Striped White water lily
***Eurasian watermilfoil**
***Curly leaf pondweed**
***Rusty Crayfish**
***Purple loosestrife**

Notes:

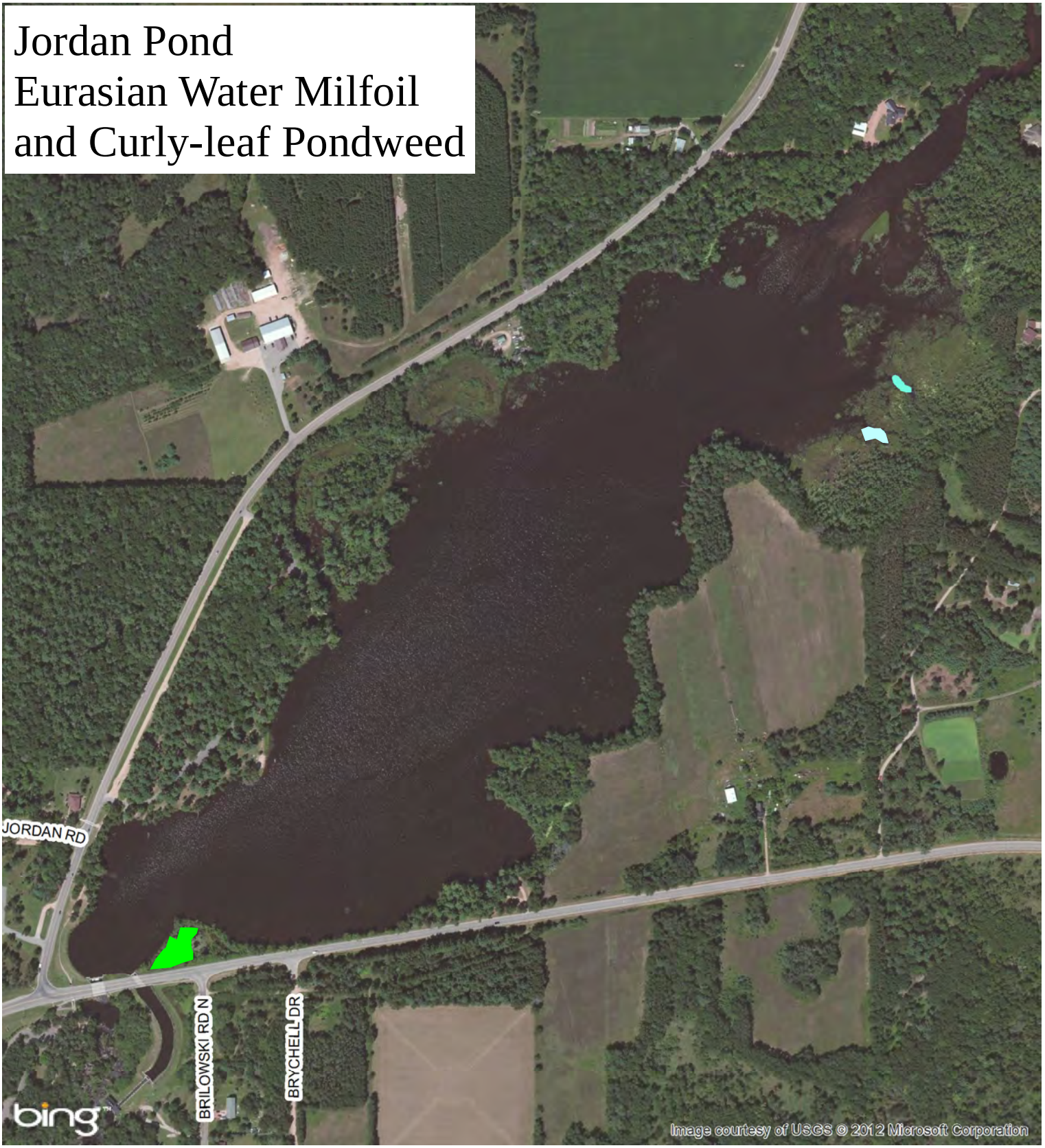
Eurasian Watermilfoil was found in a small bay just up from the dam. The bay was accessible only by kayak, and did not have carp in it, like the rest of the pond did. The pond had very little vegetation, with water lilies being the main aquatic plant. The small, very shallow bays had more vegetation.

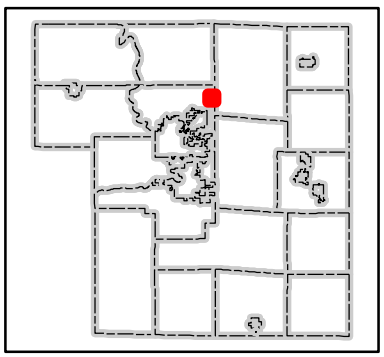
Curly leaf pondweed was found in two such bays on the east side of the lake. The plants were scattered, and are probably more numerous earlier in the year.

Rusty crayfish are common throughout the lake.

A few purple loosestrife plants were found on the sandbar island just south of the mouth of where the river comes into the lake.

Jordan Pond
Eurasian Water Milfoil
and Curly-leaf Pondweed





Eurasian Water Milfoil
Curly-leaf Pondweed

0.49 acres

Collected July 23, 2012
with a Garmin GPSmap 62st

Date of Photography: Summer 2011

Location:
Town of Hull
Town 24N Range 08E Section 12
Portage County, Wisconsin

N

Feet
0 200 400 600

Printed: August 10, 2012

Lime Lake, Portage County AIS survey results
June 21st, 2012
Conducted by Kaycie Stushek, Golden Sands RC&D

During the course of the survey, observed native aquatic plants were also recorded.

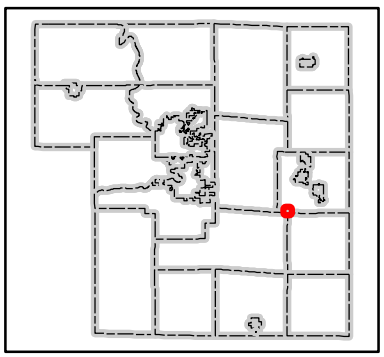
AIS & Aquatic Plant List (AIS highlighted in red and marked with an asterisk*)

Coontail
Illinois pondweed
Flat-stemmed pondweed
White Water lily
Northern water milfoil
***Banded mystery snail**
***Curly leaf pondweed**
Sago pondweed
Common Waterweed (Elodea)
Common Bladderwort
Large duckweed
Fries pondweed
Bullhead pond lily
White stemmed pondweed
Chara
***Narrow leaved cattail**

Notes:

This lake had been treated for Eurasian watermilfoil in 2011. No new plants were discovered during this survey. Curly leaf pondweed was discovered near the boat landing scattered out until the end of the cattails. About 48 plants were found. All plants were hand pulled, including turions. There is a very abundant native milfoil population and coontail population throughout the littoral zone.

Lime Lake
Curly-leaf Pondweed



● Curly-leaf Pondweed

Density of vegetation: Individual plants
near the boat launch

Collected June 21, 2012
with a Garmin GPSmap 62st

Date of Photography: Summer 2011

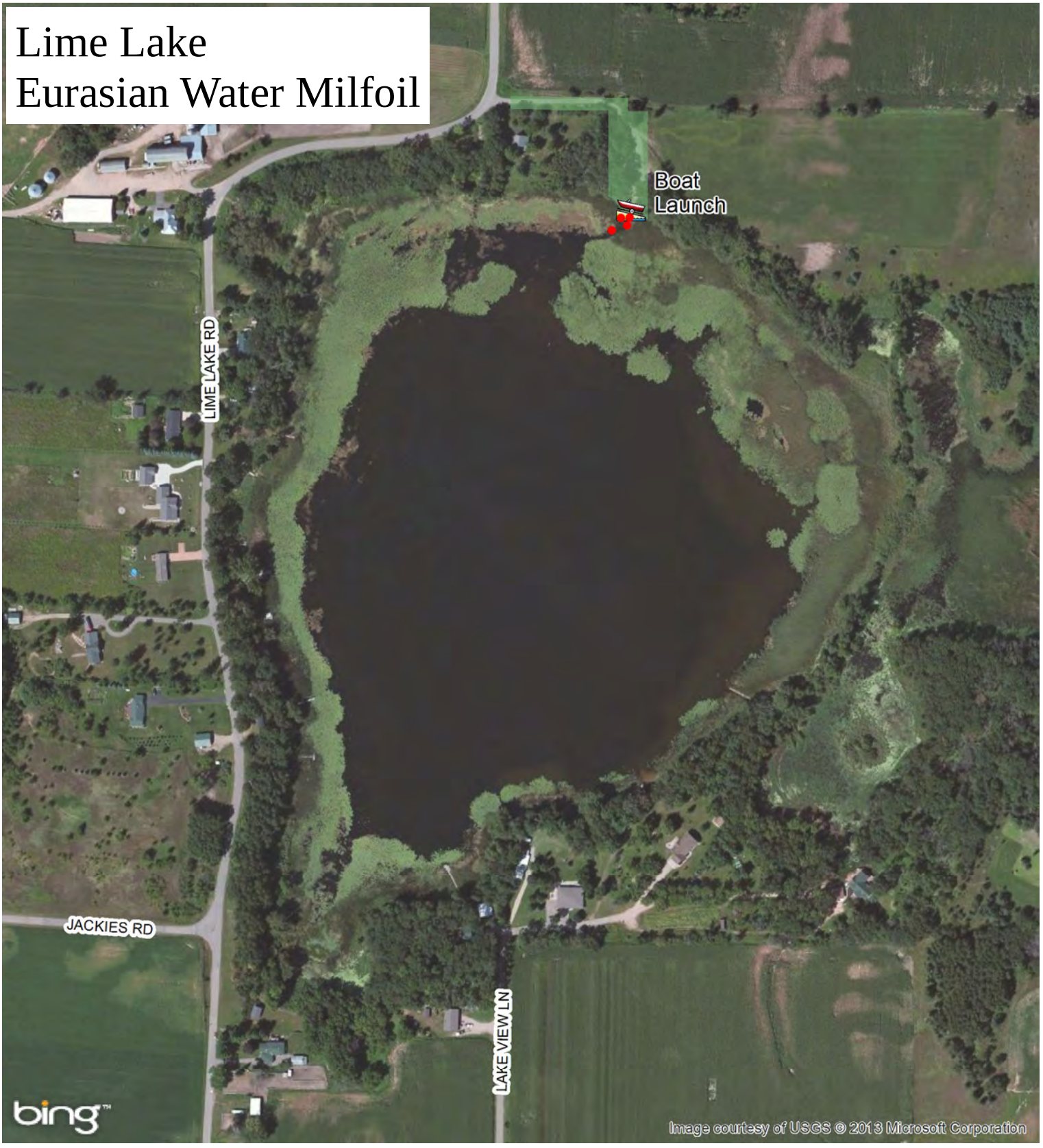
Location:
Town of Amherst
Town 23N Range 09E Section 36
Town 23N Range10E Section 31
Portage County, Wisconsin

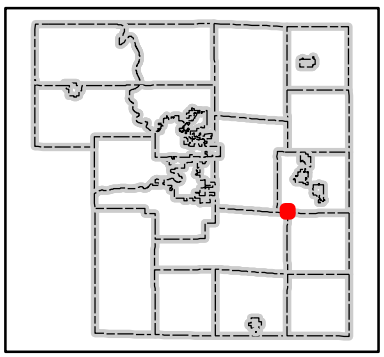
N

Feet
0 100 200 300

Printed: July 23, 2012

Lime Lake
Eurasian Water Milfoil





Eurasian Water Milfoil

Collected June 12, 2013
with a Garmin GPSmap 62st

Date of Photography: Summer 2011

Location:
Town of Amherst
Town 23N Range 9E Section 36 and
Town 23N Range 10E Section 31
Portage County, Wisconsin

Feet
0 100 200 300

Printed: July 16, 2013

Meyers Lake, Portage County AIS survey results
July 8th , 2012
Conducted by Savanna Dahl, Golden Sands RC&D

During the course of the survey, observed native aquatic plants were also recorded.

AIS & Aquatic Plant List (AIS highlighted in red and marked with an asterisk*)

Illinois pondweed
Northern watermilfoil
Variable pondweed
White stem pondweed
Common waterweed
Slender naiad
Floating leaf pondweed
Flat stem pondweed
Watershield
Water stargrass
Common bladderwort
White water lily
Southern naiad
Bullhead pond lily

Notes:

No Aquatic invasive species were found!

Minister Lake, Portage County AIS survey results
June 13th, 2012
Conducted by Paul Skawinski & Kate Carson, Golden Sands RC&D

During the course of the survey, observed native aquatic plants were also recorded.

AIS & Aquatic Plant List (AIS highlighted in red and marked with an asterisk*)

Bullhead pond lily
Watershield
Water smartweed
Common bladderwort
Creeping bladderwort
Twin-stem bladderwort – Special Concern species
Ribbon-leaf pondweed
Small pondweed
Northern St. john's wort
Creeping spikerush
Large-leaf pondweed
Striped white water lily

Notes:
No AIS were found at Minister Lake. Minister Lake has only carry-in access, provided by a short trail from the road.

Onland Lake, Portage County AIS survey results
June 13th, 2012
Conducted by Paul Skawinski & Kate Carson, Golden Sands RC&D

During the course of the survey, observed native aquatic plants were also recorded.

AIS & Aquatic Plant List (AIS highlighted in red and marked with an asterisk*)

Water celery
Turion duckweed (*Lemna turionifera*)
Water smartweed
Water marigold
***Purple loosestrife**
Large-leaf pondweed
Hybrid cattail (*Typha* X *glauca*)
Bullhead pond lily
Three-square bulrush
Native *phragmites australis* (giant reed)
Stiff pondweed
White-stem pondweed
White water crowfoot
Coontail
Flat-stem pondweed
Slender naiad
Common bladderwort
Watershield
Illinois pondweed
Chara
Sago pondweed
Fries' pondweed
Floating-leaf pondweed
Northern watermilfoil
Variable pondweed
Small pondweed
Striped white water lily
***Banded mystery snail**

Notes:
Scattered clumps of purple loosestrife were observed near the boat landing. No beetle damage was observed. Banded mystery snails were scattered around the lake at low density. The water clarity and aquatic plant diversity was excellent.

Lake Pacawa, Portage County AIS survey results
July 3th, 2012
Conducted by Kaycie Stushek & Savanna Dahl, Golden Sands RC&D

During the course of the survey, observed native aquatic plants were also recorded.

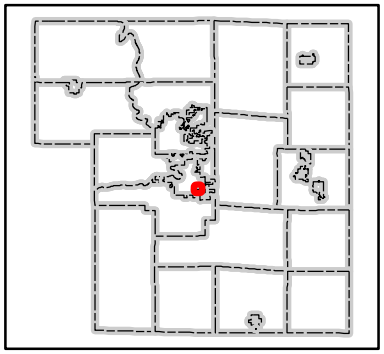
AIS & Aquatic Plant List (AIS highlighted in red and marked with an asterisk*)

Sago pondweed
Illinois Pondweed
Chara
Northern Watermilfoil
Flat-stemmed pondweed
***Eurasian watermilfoil/Northern watermilfoil hybrid**

Notes:

EWM/NWM hybrid was abundant throughout the lake. The plant diversity was low, but water clarity was high.

Lake Pacawa
Eurasian Water Milfoil



Eurasian Water Milfoil

Bed	Acreage	Bed	Acreage	Bed	Acreage	Bed	Acreage
1	0.425	5	0.158	9	0.004	13	0.036
2	0.267	6	0.004	10	0.369	14	1.181
3	0.080	7	0.031	11	0.739	15	0.173
4	0.186	8	0.064	12	0.024	16	0.176

Density for all beds: 1 plant per foot to 1 plant per 5 feet

Collected July 3, 2012
with a Garmin GPSmap 62st

Date of Photography: Summer 2011

Location:
Village and Town of Plover
Town 23N Range 08E Section 36
Portage County, Wisconsin

N

Feet
0 100 200 300

Printed: July 20, 2012

Pickerel Lake – Portage County AIS survey results
June 1st, 2012
Conducted by Kaycie Stushek, Golden Sands RC&D

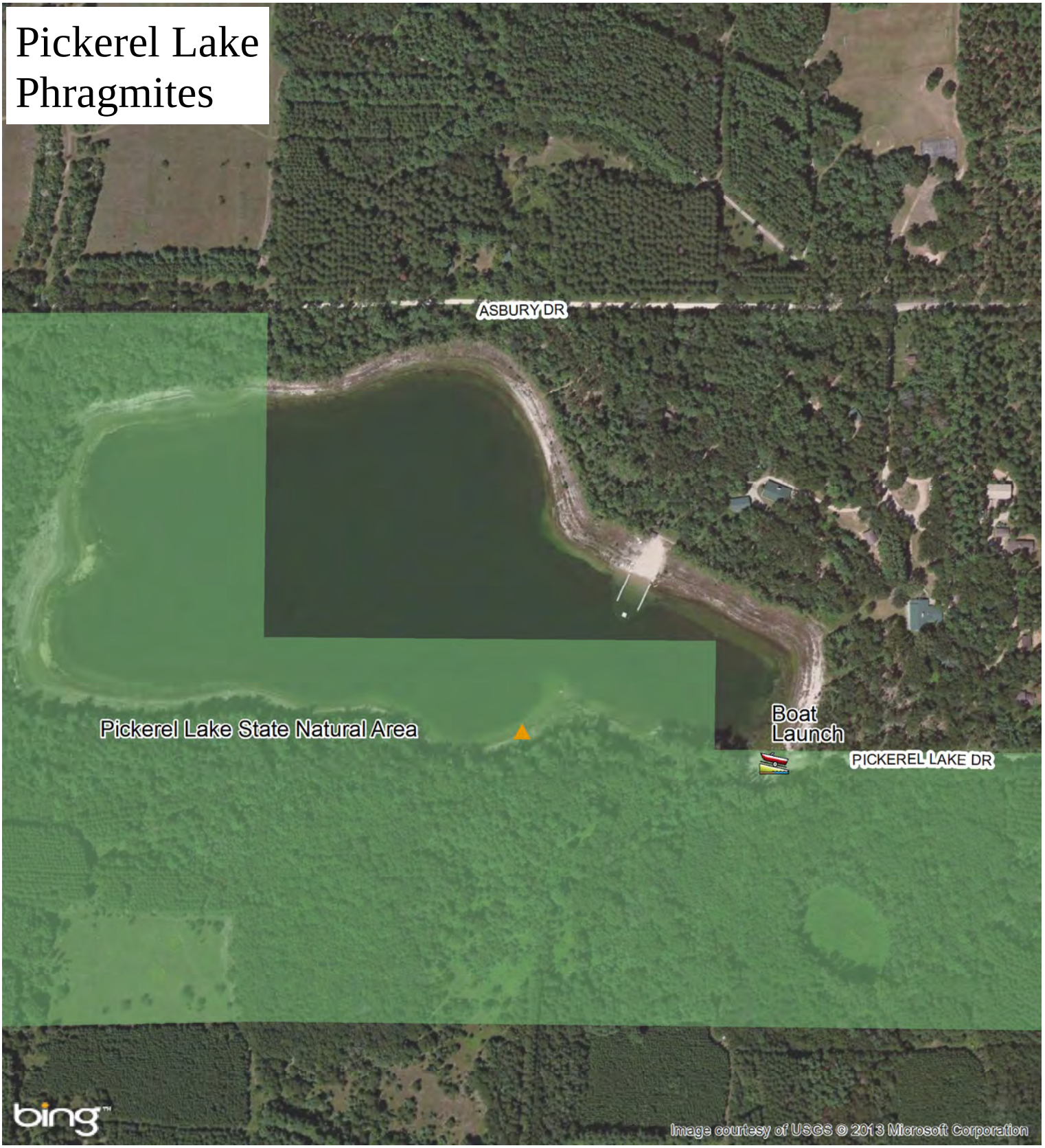
During the course of the survey, observed native aquatic plants were also recorded.

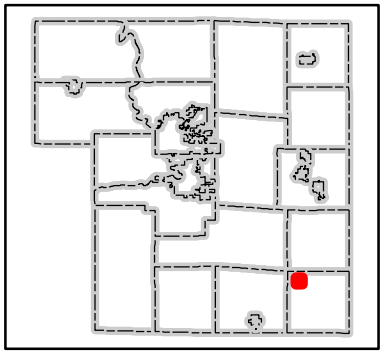
AIS & Aquatic Plant List (AIS highlighted with an asterisk)

*Banded mystery snail
Chara
Slender Naiad
Illinois pondweed
Sago Pondweed

Was conducting post herbicide treatment for Eurasian Watermilfoil (EWM) conducted one month prior. No living EWM was found, but some dead leaflets of both EWM and Northern Watermilfoil were found floating. The water was very murky with tiny bits of floating marl or detritus, so it made visibility very low. This was assumed to be from the herbicide treatment, which covered a large portion of the lake. I did not see any Fassett's locoweed flowering either. The water was up at least a foot from last year, which could be the contributing factor.

Pickerel Lake Phragmites





▲ Phragmites

Collected June 10, 2013
with a Garmin GPSmap 62st

Date of Photography: Summer 2011

Location:
Town of Belmont
Town 21N Range 10E
Sections 5 and 6
Portage County, Wisconsin

N

Feet
0 100 200 300

Printed: July 16, 2013

Rinehart Lake, Portage County AIS survey results
June 13th, 2012
Conducted by Paul Skawinski & Kate Carson, Golden Sands RC&D

During the course of the survey, observed native aquatic plants were also recorded.

AIS & Aquatic Plant List (AIS highlighted in red and marked with an asterisk*)

Bullhead pond lily
Variable pondweed
Slender naiad
Sago pondweed
Floating-leaf pondweed
Fries' pondweed
Northern watermilfoil
White-stem pondweed
Small pondweed
Broad-leaf arrowhead
White water crowfoot
Flat-stem pondweed
Common bladderwort
Illinois pondweed
Chara
Striped white water lily
***Banded mystery snail**

Notes:

Banded mystery snails scattered at low density. Substrate is dominated by muskgrasses (*Chara* spp.). Near-shore areas dominated by abundant hardstem bulrush (*Schoenoplectus tabernaemontani*).

Rocky Run Lake, Portage County AIS survey results
June 5th, 2012
Conducted by Paul Skawinski, Golden Sands RC&D

During the course of the survey, observed native aquatic plants were also recorded.

AIS & Aquatic Plant List (AIS highlighted in red and marked with an asterisk*)

Large-leaf pondweed
Common bladderwort
Pickerelweed
Purple loosestrife (with beetle damage, eggs)
Bullhead pond lily
Chara/muskgrass
Water celery
Creeping spikerush
Ribbon-leaf pondweed
Needle spikerush
Creeping bladderwort
Slender waterweed
Vasey's pondweed – (*Potamogeton vaseyi* – SPECIAL CONCERN SPECIES)
Water purslane (*Ludwigia palustris*)
Northern St. Johns' wort (*Hypericum boreale*)
Brown-fruited rush
Common waterweed
Water-thread pondweed (*Potamogeton diversifolius* subsp. *diversifolius* – SPECIAL CONCERN SPECIES)

Notes:

Eurasian watermilfoil was hand-pulled several times throughout 2009 and early 2010. EWM has not been detected since then, using visual survey methods and an underwater camera.

The aquatic plant community is fantastic for a natural lake, let alone a constructed wetland. Water-thread pondweed was observed in a healthy bed of several hundred plants or more. Both subspecies of *P. diversifolius* are rare across the state, but subsp. *diversifolius* is very rarely seen. Vasey's pondweed (*Potamogeton vaseyi*) and slender waterweed (*Elodea nuttallii*) also quite rare, especially in Central Wisconsin.

A specimen of water-thread pondweed was collected for the Natural Heritage Inventory records, and will be submitted to the UWSP Freckmann Herbarium.

Purple loosestrife was the only exotic species found. Rocky Run Lake is used primarily by canoe/kayak/rowboat fishermen, and for training hunting dogs.

Spring Lake, Portage County AIS survey results
August 7th, 2012
Conducted by Kaycie Stushek, Golden Sands RC&D

During the course of the survey, observed native aquatic plants were also recorded.

AIS & Aquatic Plant List (AIS highlighted in red and marked with an asterisk*)

White water crowfoot
Northern Watermilfoil
Chara
Coontail
Flat-stemmed pondweed
Clasping leaf pondweed
Floating leaf pondweed
Watercress (introduced)
Small duckweed
Blunt tipped pondweed
Forked duckweed
Water stargrass
Bullhead pond lily
Common Bladderwort
***Banded mystery snail**
***Curly leaf pondweed**
***Purple loosestrife**

Notes:

Curly leaf pondweed was present in a few patches, or as single plants in the lake. One patch near the south west side contained very small plants, and was in shallow water. It was hand pulled, and consisted of about 60 plants.

Northern watermilfoil was abundant, as was clasping leaf pondweed. The clasping leaf pondweed seemed to be in very dense patches, and it is important it is not mistaken for Curly leaf pondweed in the future.

The lake is spring fed, and is very cold. The curly leaf pondweed was healthy, varied greatly in size and was not forming turions.

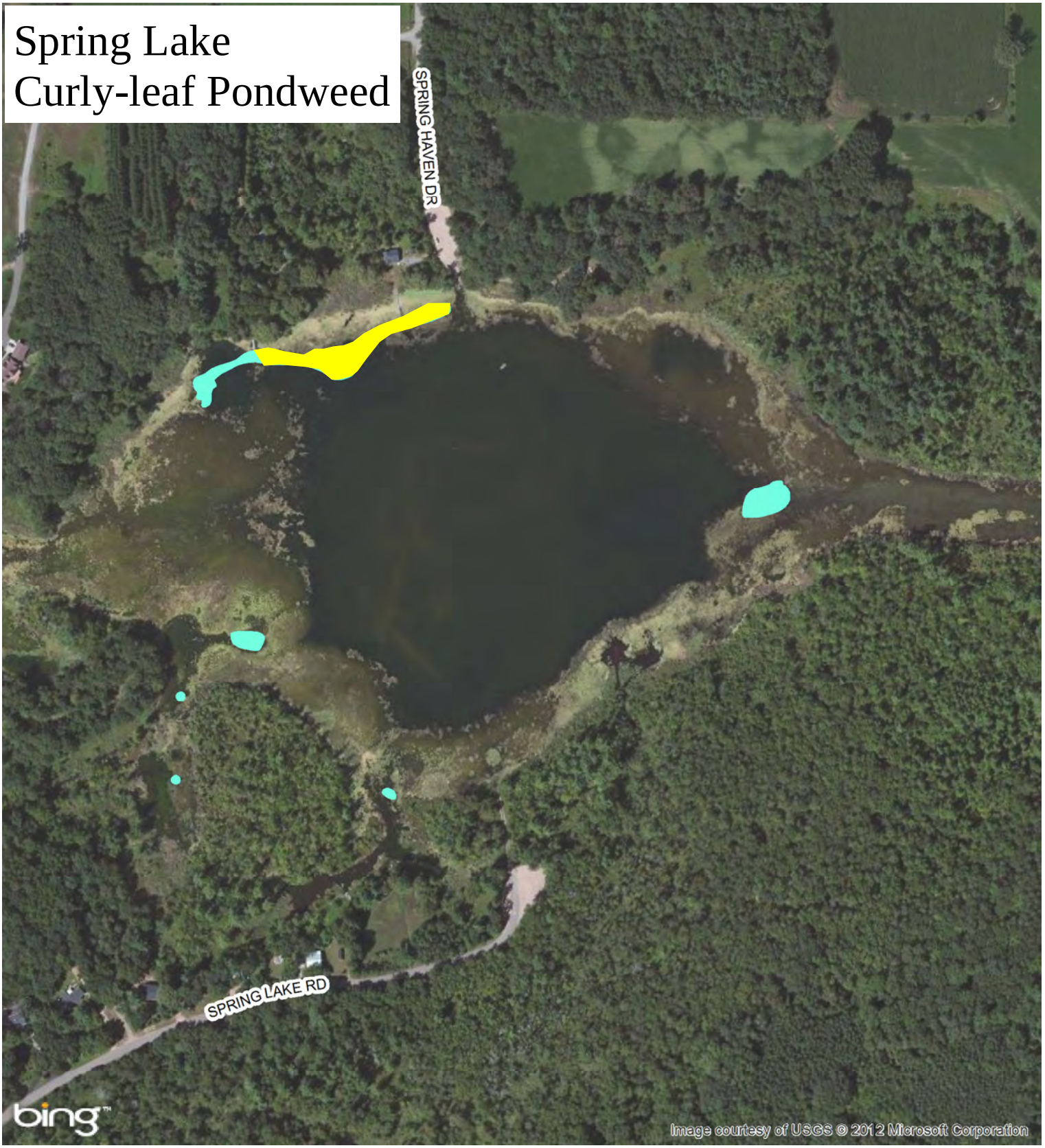
Banded mystery snails were present, but not abundant, near the boat landing.

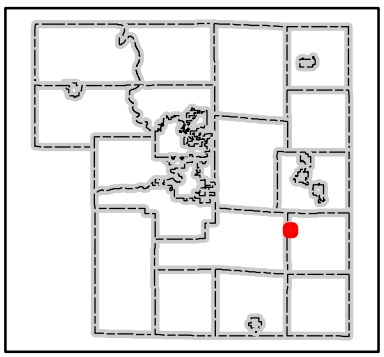
Purple loosestrife was located in the cattail area to the east of the boat landing.

One tiny watercress plant was found in the back of a bay on the southeast side of the lake. Algae is abundant in some small bays of the lake. A pink-color was present in some locations where algae was abundant, and a spring entered the lake.

Chara was close to the surface in many areas on the western end of the lake, prohibiting passage to the very west end of the lake.

Spring Lake
Curly-leaf Pondweed





Curly-leaf Pondweed Rake Density 2

Curly-leaf Pondweed Rake Density 1

Collected August 7, 2012
with a Garmin GPSmap 62st

Date of Photography: Summer 2011

Location:
Town of Lanark
Town 23N Range 10E Section 7
Portage County, Wisconsin

N

Feet

0 100 200 300

Printed: August 10, 2012

Springville Pond, Portage County AIS survey results
June 11th, 2012
Conducted by Paul Skawinski, Golden Sands RC&D

During the course of the survey, observed native aquatic plants were also recorded.

AIS & Aquatic Plant List (AIS highlighted in red and marked with an asterisk*)

***Eurasian watermilfoil**
***Curly-leaf pondweed**
Sago pondweed
***Banded mystery snail**
Horned pondweed
Filamentous algae
Variable pondweed
Illinois pondweed
Clasping leaf pondweed
Fries' pondweed
Common waterweed
***Exotic *Nymphaea* species (water lily)**
White water crowfoot
Leafy pondweed
Watercress
Water stargrass
***Aquatic forget-me-not**
Small duckweed
***Yellow Iris**
*** Japanese knotweed**

Notes:

Eurasian Watermilfoil was found scattered throughout the lake, with a few dense patches. A very dense patch of Eurasian watermilfoil was located on the east side of the lake. EWM, common waterweed, sago pondweed, duckweed, curly leaf pondweed and algae make the east side of the lake almost impassable by kayak. Weevils were found in high densities on the mid and eastern sides of the lake.

CLP also widespread, but sparse throughout the lake, and mostly restricted to the upper half of the pond. CLP is abundant in the upper 10% of the pond, near the inlet.

Also at the upper end surrounding the inlet, aquatic forget-me-not (*Myosotis scorpioides*) is common along the shorelines, mixed with two abundant exotics - bittersweet nightshade (*Solanum dulcamara*) and reed canary grass (*Phalaris arundinacea*).

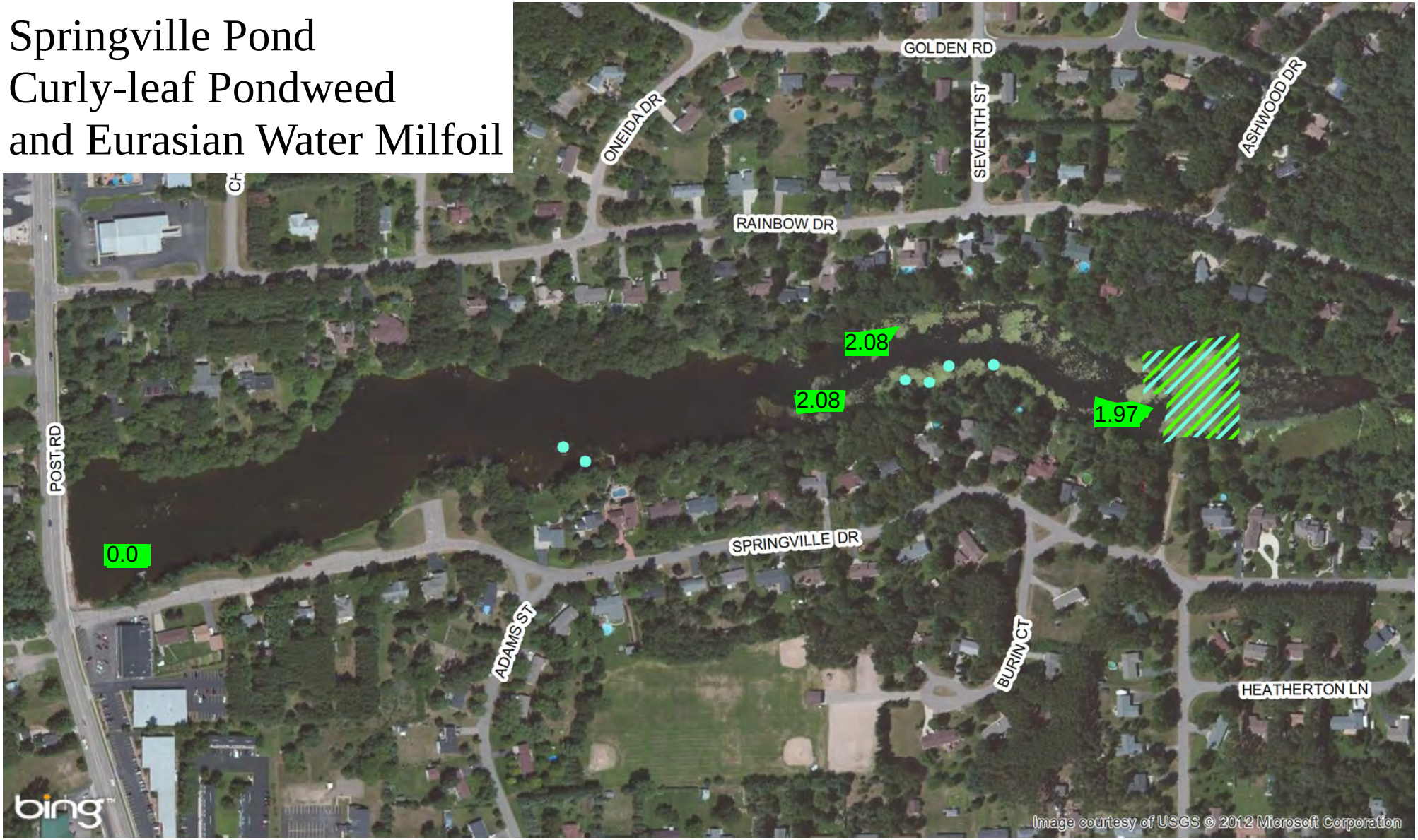
Exotic water lilies (*Nymphaea* sp.) were found near the east end of the pond, planted next to a dock. These lilies covered an area of approximately 80 sq ft. Both cream-colored and white lilies existed. Since no native Nymphaea species were found in Springville, the white lilies in this location are probably also exotic cultivars planted alongside the cream-colored ones.
Yellow Iris (*Iris pseudacorus*) was also found at this location, adjacent to the lilies.

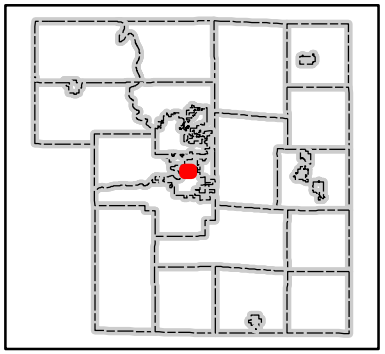
Banded mystery snails were very abundant in some locations.

Japanese knotweed (*Polygonum cuspidatum*) was found on the northwest side. It appears to be on the boundary between a house and the dental clinic.


Rainbow Dr
Chippewa Dr
Ojibwa Ln
Oneida Dr
Seventh St
Ashwood Dr
B51
51
Springville Pond
Little Plover River
Plover
PORTAGE
Springville Dr
Adams St
Burtin Ct
Heatherton L
Heatherton L

Springville Pond
Curly-leaf Pondweed
and Eurasian Water Milfoil





Eurasian Water Milfoil

Curly-leaf Pondweed

*Rest of the Lake has Eurasian water milfoil lightly scattered throughout. Map shows dense beds and average weevils/stem.

Collected July 23, 2012
with a Garmin GPSmap 62st

Date of Photography: Summer 2011

Location:
Village of Plover
Town 23N Range 08E Section 15
Portage County, Wisconsin

Feet
0 100 200 300

Printed: August 10, 2012

Stoltenburg Lake (Lake Elaine), Portage County AIS survey results
June 13th, 2012
Conducted by Paul Skawinski & Kate Carson, Golden Sands RC&D

During the course of the survey, observed native aquatic plants were also recorded.

AIS & Aquatic Plant List (AIS highlighted in red and marked with an asterisk*)

Bullhead pond lily
Water stargrass
Stiff pondweed
White water crowfoot
Coontail
Flat-stem pondweed
Slender naiad
Water horsetail (*Equisetum fluviatile*)
Common bladderwort
Broad-leaf cattail
Hybrid cattail
Watershield
Broad-leaf arrowhead
Illinois pondweed
Chara
Sago pondweed
Fries' pondweed
Floating-leaf pondweed
Northern watermilfoil
Variable pondweed
Small pondweed
Striped white water lily
***Banded mystery snail**
Small duckweed

Notes:

Banded mystery snails were scattered around the lake at low density. Most of the cattails were broad-leaf (*Typha latifolia*), though some hybrid cattails (*Typha* X *glauca*) were observed. Most of the cattail clones were in flower.

Sunset Lake, Portage County AIS survey results
June 11th, 2012
Conducted by Paul Skawinski, Golden Sands RC&D

During the course of the survey, observed native aquatic plants were also recorded.

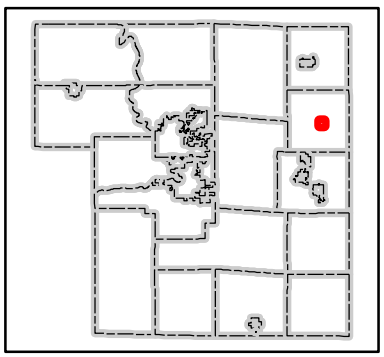
AIS & Aquatic Plant List (AIS highlighted in red and marked with an asterisk*)

Variable pondweed
Illinois pondweed
Chara
Floating-leaf pondweed
***Banded mystery snail**
Common bladderwort
Slender naiad
***Eurasian watermilfoil**
Aquatic moss (*Drepanocladus* sp.)
Sago pondweed
Brown-fruited rush

Notes:

Eurasian watermilfoil was not detected near the boat landing/beach, where it has been present for the last several years. Hand-pulling and herbicides have both been used on the boat landing/beach population. EWM was found this year on the west side of the lake. Two small clumps were in shallow water and were hand-pulled after being recorded with a GPS unit. The third clump was larger and deeper (5-6ft), and could not be hand-pulled from the surface. All of the plants in the third clump were less than 2ft tall, with the majority only ~1ft tall. Snorkeling for these is recommended.
Banded mystery snails were common throughout the lake.

Sunset Lake
Eurasian Water Milfoil



● Eurasian Water Milfoil

Collected July 9, 2012
with a Garmin GPSmap 62st

Date of Photography: Summer 2011

Location:
Town of New Hope
Town 24N Range 10E Section 22
Portage County, Wisconsin

N

Feet
0 100 200 300

Printed: July 24, 2012

Thomas Lake, Portage County AIS survey results
June 21st, 2012
Conducted by Kaycie Stushek, Golden Sands RC&D

During the course of the survey, observed native aquatic plants were also recorded.

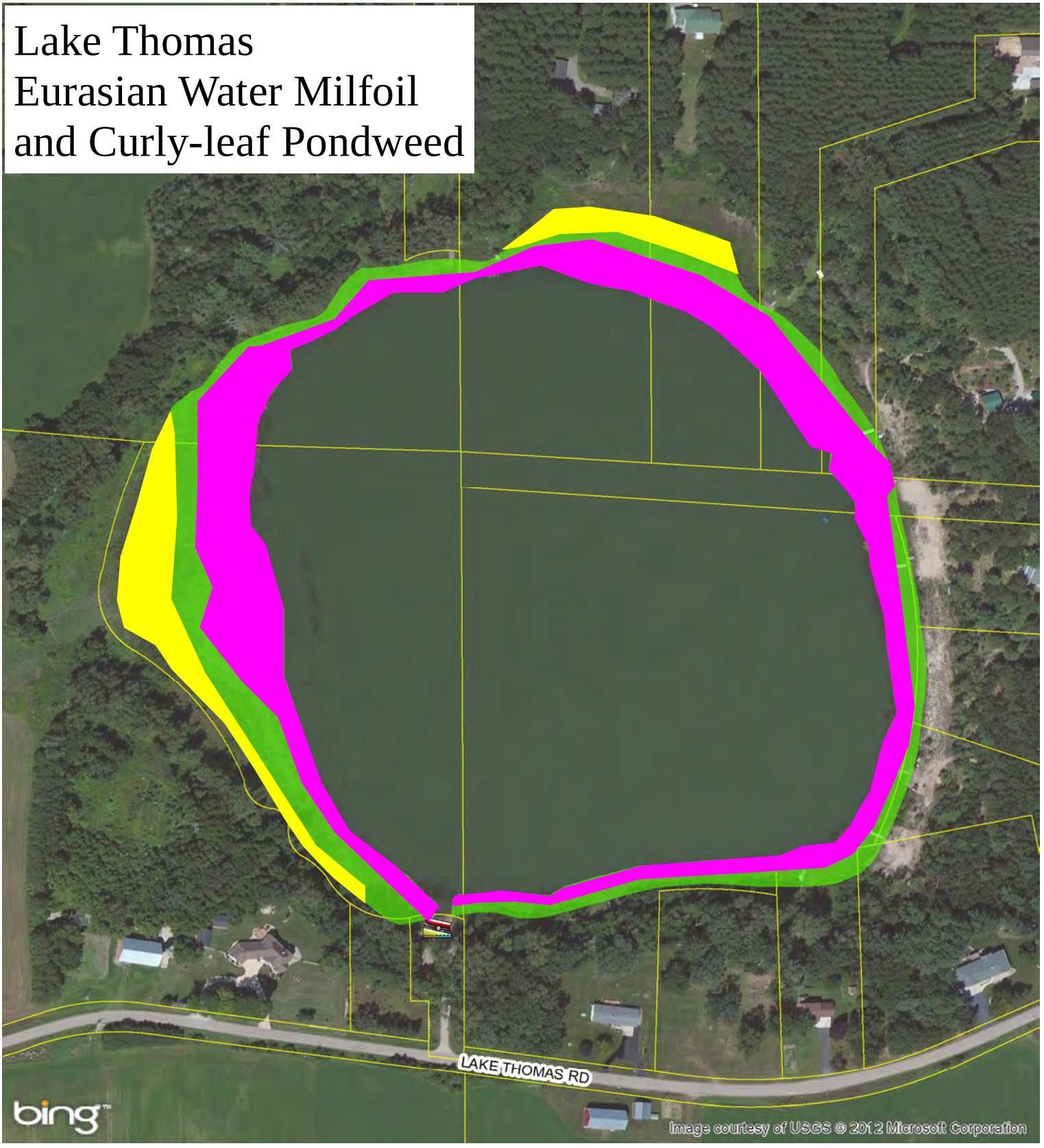
AIS & Aquatic Plant List (AIS highlighted in red and marked with an asterisk*)

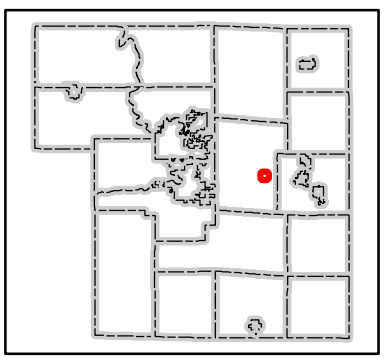
Coontail
Illinois pondweed
Fern pondweed
Hard stemmed Bulrush
Flat-stemmed pondweed
White Water lily
Northern water milfoil
Water smartweed
***Banded mystery snail**
***Eurasian watermilfoil**
***Curly leaf pondweed**
***Giant Reed Grass**
Sago pondweed

Notes:

Eurasian watermilfoil was detected near the boat landing/beach, where it has been present for the last several years. Hand-pulling has been used on the population near the boat landing in the past. The Eurasian watermilfoil grows throughout the entire littoral zone in varying densities, forming a ring around the whole lake. Curly leaf pondweed is also present in less dense patches, but is throughout the littoral zone as well. Giant Reed Grass was present on the east side of the lake inland from the cattails.

Lake Thomas
Eurasian Water Milfoil and Curly-leaf Pondweed





Eurasian Water Milfoil and Curly-leaf Pondweed

Rake density of 3
Rake density of 2
Rake density of 1

Density of vegetation: 1 plant per 6 inches to 1 plant per 7 feet

Total Acres: 8.8

Collected June 21, 2012
with a Garmin GPSmap 62st

Date of Photography: Summer 2011

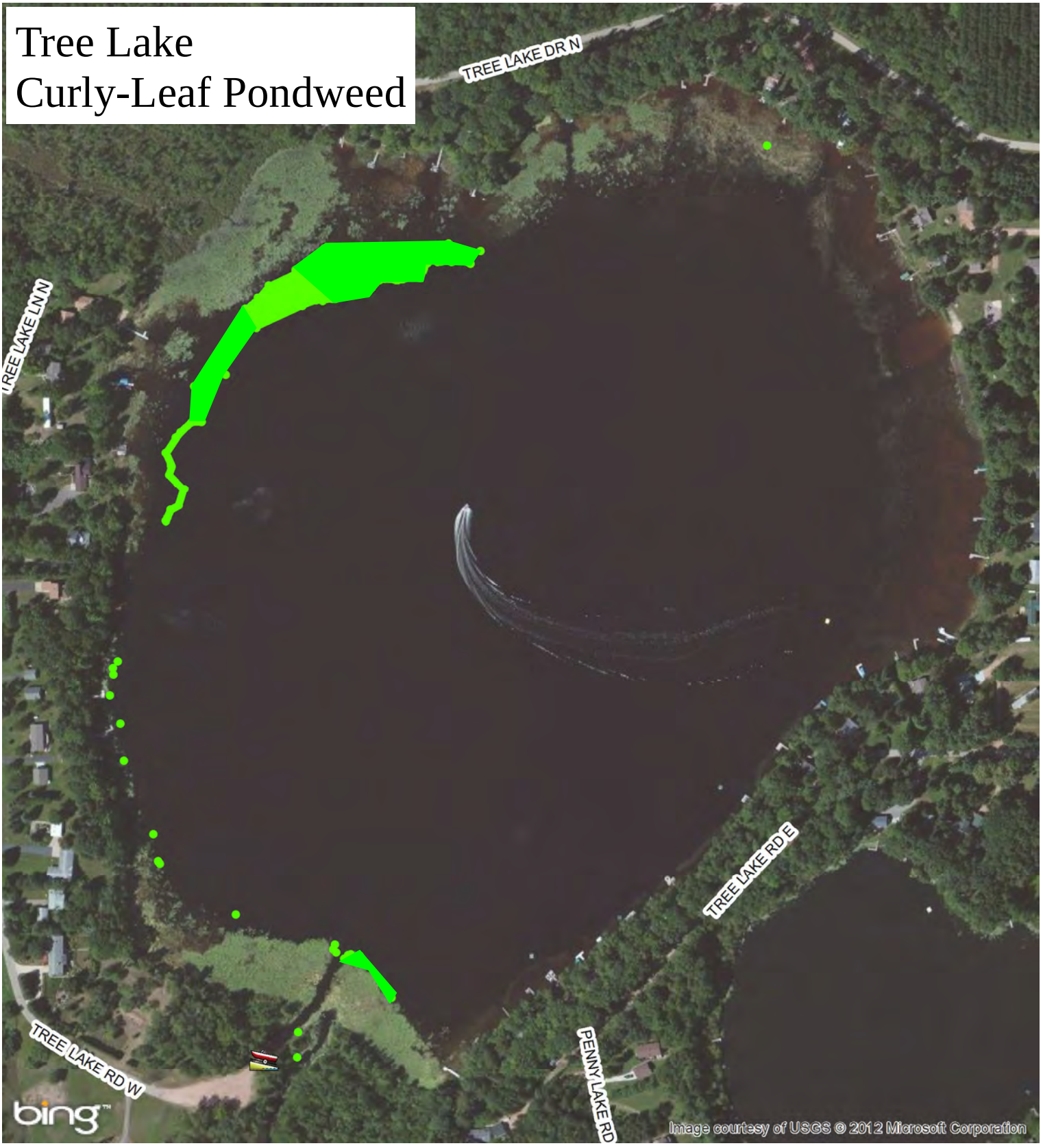
Location:
Town of Stockton
Town 23N Range 09E Section 15
Portage County, Wisconsin

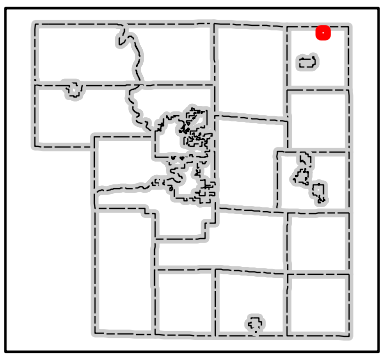
N

Feet
0 100 200 300

Printed: July 23, 2012

Tree Lake
Curly-Leaf Pondweed





Curly-Leaf Pondweed

Collected July 11, 2012
with a Garmin GPSmap 62st

Date of Photography: Summer 2011

Location:
Town of Alban
Town 25N Range 10E Section 3
Portage County, Wisconsin

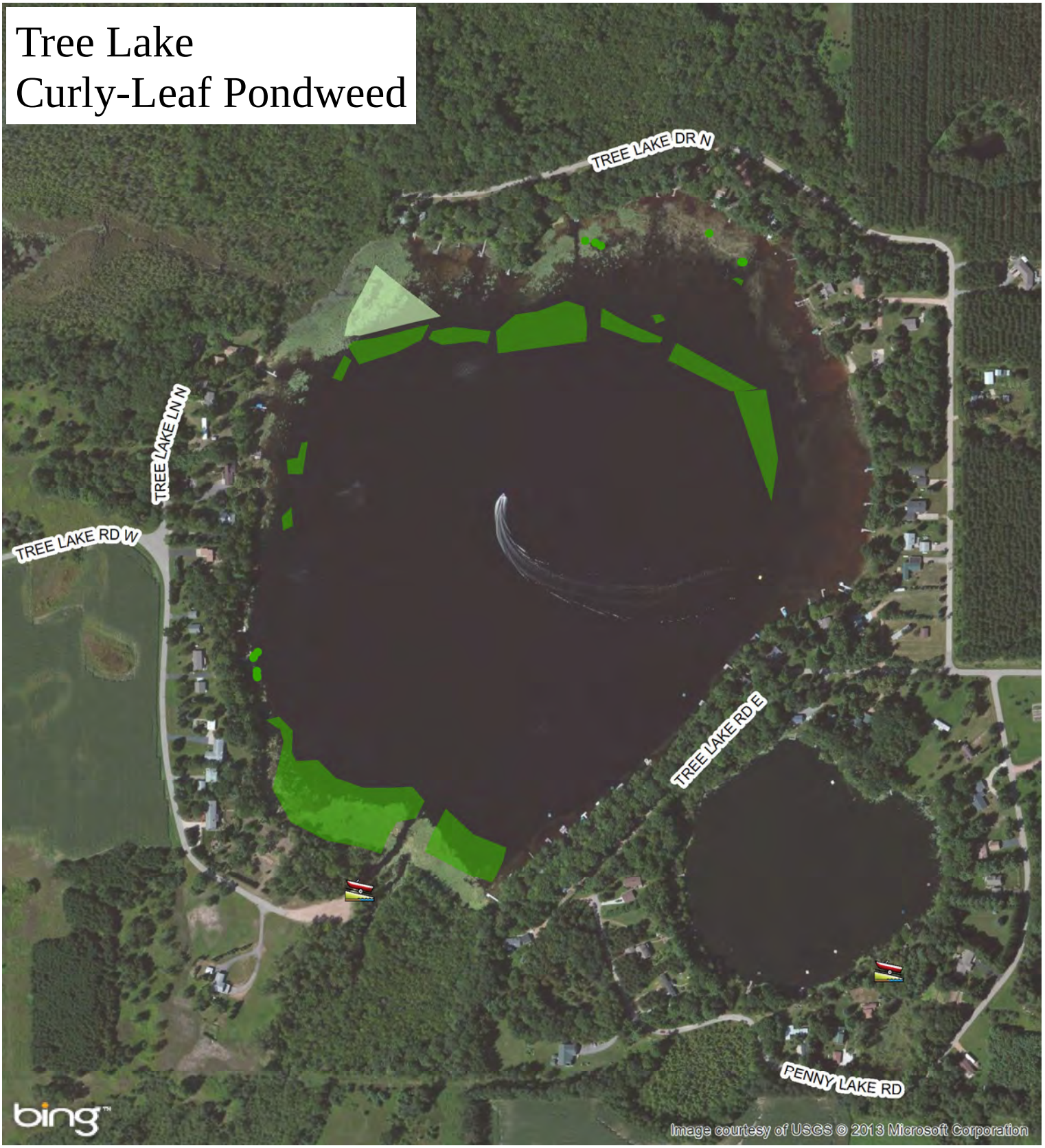
N

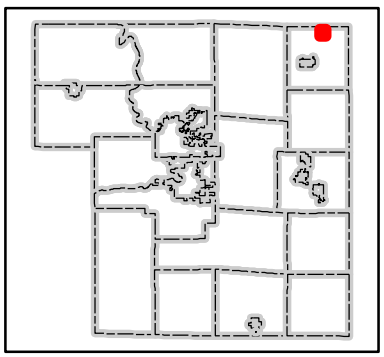
Feet

0 100 200 300

Printed: July 24, 2012

Tree Lake
Curly-Leaf Pondweed





Curly-Leaf Pondweed

- Rake-full density 1
- Rake-full density 3

Collected June 12, 2013
with a Garmin GPSmap 62st

Date of Photography: Summer 2011

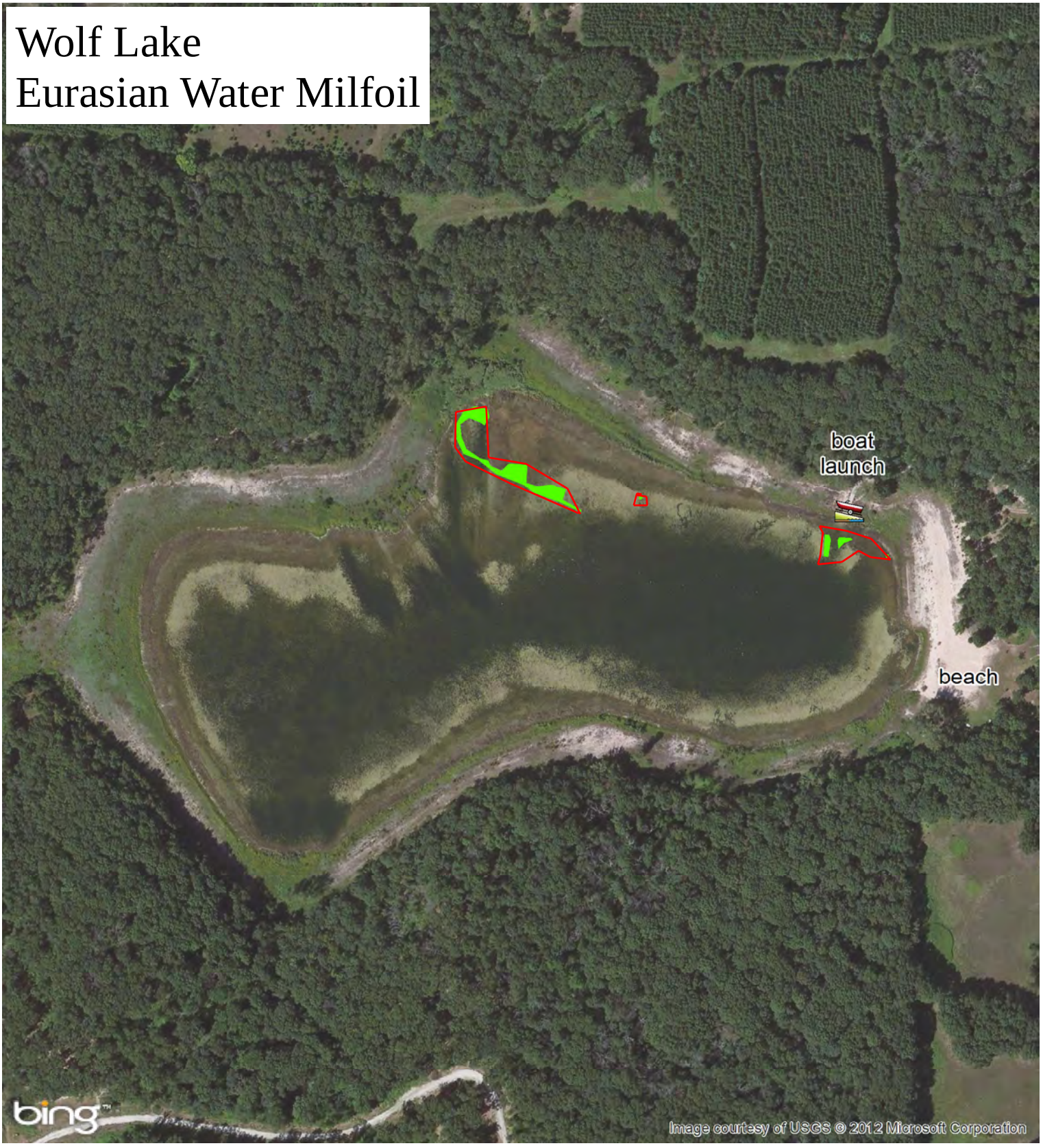
Location:
Town of Alban
Town 25N Range 10E Section 3
Portage County, Wisconsin

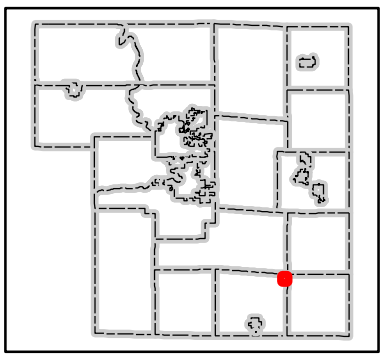
N

Feet
0 100 200 300

Printed: July 16, 2013

Wolf Lake
Eurasian Water Milfoil





Eurasian Water Milfoil

0.188 acres

Collected July 8, 2012
with a Garmin GPSmap 62st

Date of Photography: Summer 2011

Location:
Town of Almond
Town 21N Range 09E Section 1
Portage County, Wisconsin

N

Feet
0 100 200 300

Printed: September 18, 2012

Appendix 4

New AIS Maps
(other counties)

Porters Lake, Waushara County AIS survey results
August 23rd, 2012
Conducted by Paul Skawinski, Golden Sands RC&D and Andrew Teal, UWSP

During the course of the survey, observed native aquatic plants were also recorded.

AIS & Aquatic Plant List (AIS highlighted in red and marked with an asterisk*)

Floating-leaf pondweed
***Banded mystery snail**
Large-leaf pondweed
Bullhead pond lily
Common bladderwort
***Purple loosestrife**
Small bladderwort
White water lily
Variable pondweed
Watershield
Small duckweed
Small purple bladderwort
Aquatic forget-me-not (introduced, but not problematic in lakes)
Coontail
White water crowfoot
Slender naiad
Broad-leaf arrowhead
Fries' pondweed
White-stem pondweed
Freshwater sponges!
Southern naiad
Common waterweed
***Eurasian watermilfoil**
Northern watermilfoil
Sago pondweed
Water celery
Flat-stem pondweed
Muskgrasses (*Chara contraria, C. aspera,* and *C. globularis*)
Illinois pondweed
Stiff pondweed
Stonewort (*Nitella tenuissima*)
Wild rice

Notes:
Banded mystery snails abundant in most of the lake. EWM found in SW corner of lake in moderate abundance, mostly in shallow water 1-3ft. A few scattered plants in deeper water. Several EWM plants found near outlet on NE corner of lake, close to east shore. Purple loosestrife scattered in SW corner. Small purple bladderwort (*Utricularia resupinata*) abundant along eastern shore! Very unusual habitat for this plant. Freshwater sponges also found in several locations.

Very healthy and diverse aquatic plant community for a Central Wisconsin lake. Average is 16.7 species, 31 species found (plus two additional *Chara* spp.) in Porters Lake during this survey.

Eurasian Watermilfoil Locations
Porters Lake, Waushara County, August 23, 2012

N

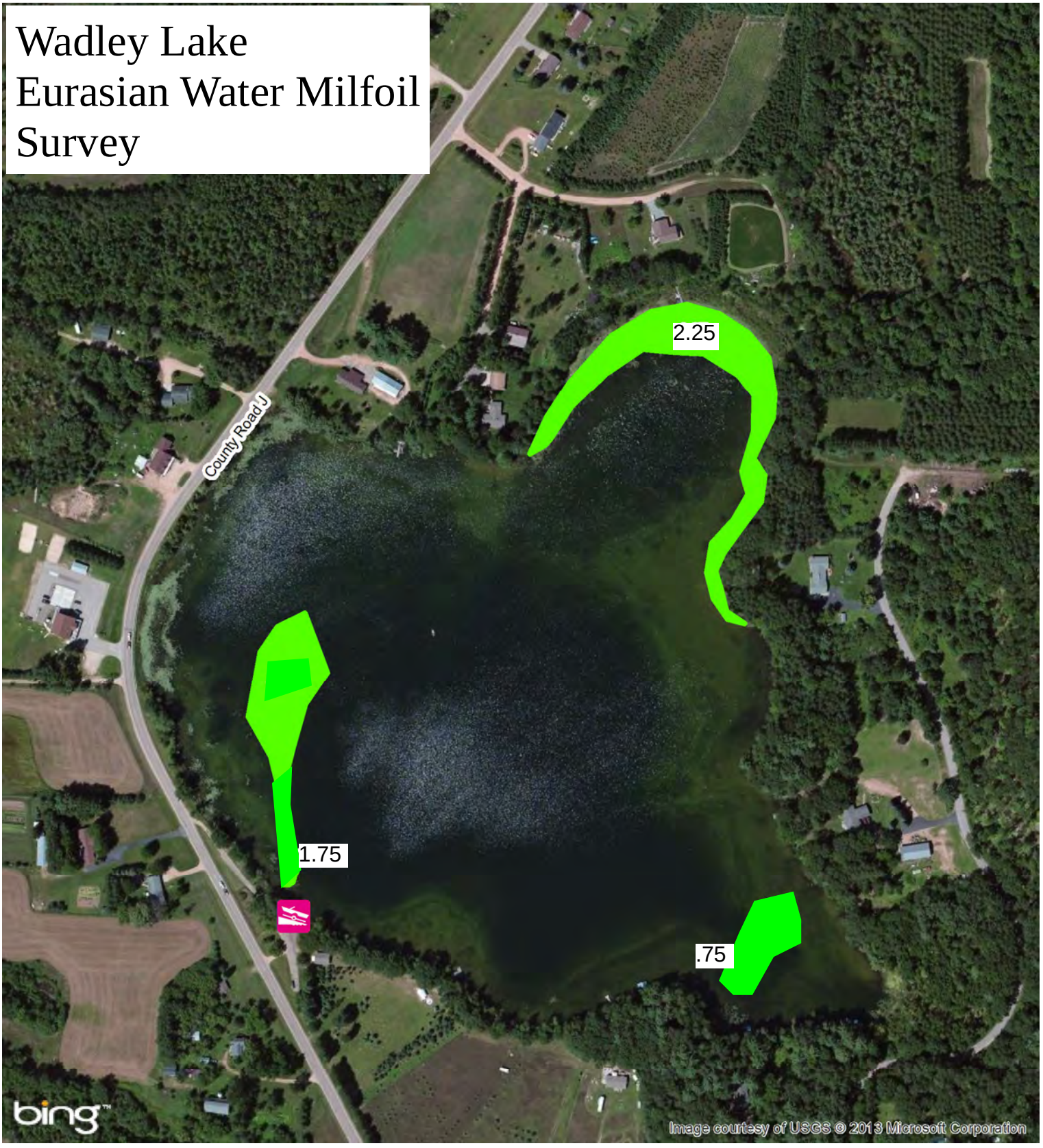
Mapped by Paul Skawinski, Golden Sands RC&D

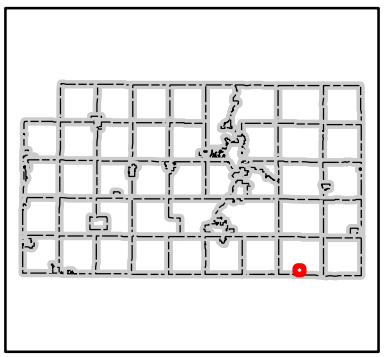
Eurasian watermilfoil, Porters Lake, Waushara County, September 21, 2012

N

Mapped by Paul Skawinski,
Golden Sands RC&D

Wadley Lake Eurasian Water Milfoil Survey





Eurasian Water Milfoil

4.75 acres

Collected June 19, 2012
with a Garmin GPSmap 62st

Date of Photography: Summer 2011

Location:
Town of Bevent
Town 26N Range 9E Sections 32, 33
Marathon County, Wisconsin

N

Feet

0 100 200 300

Printed: January 16, 2013

Appendix 5

Region-wide AIS List

AIS Reported in Our Counties as of 12-17-13

MARATHON COUNTY		
Waterbody Name	**WBIC**	**Invasive Species**
Big Bass Lake	1405200	Banded Mystery Snail
Big Rib River	1451800	Eurasian Water-Milfoil,Rusty Crayfish
Eau Claire Flowage	1437800	Chinese Mystery Snail,Eurasian Water-Milfoil
Flume Creek	286600	Rusty Crayfish
Johnson Creek	1424900	Rusty Crayfish
Lake Du Bay	1412200	Chinese Mystery Snail,Curly-Leaf Pondweed,Eurasian Water-Milfoil,Rusty Crayfish
Lake Wausau	1437500	Curly-Leaf Pondweed
Little Rib River	1451900	Rusty Crayfish
Little Trappe River	1470800	Rusty Crayfish
Lost Lake	1407000	Chinese Mystery Snail
Mayflower Lake	310500	Chinese Mystery Snail,Curly-Leaf Pondweed,Purple Loosestrife
Mission Lake	1005400	Banded Mystery Snail,Chinese Mystery Snail,Eurasian Water-Milfoil,Purple Loosestrife
Pike Lake	1406300	Banded Mystery Snail,Curly-Leaf Pondweed,Rusty Crayfish
Plover River	1402800	Rusty Crayfish
Rice Lake	1406500	Banded Mystery Snail,Chinese Mystery Snail,Curly-Leaf Pondweed
South Branch Embarrass River	305600	Rusty Crayfish
Spring Brook	1440800	Rusty Crayfish
Trappe River	1470700	Rusty Crayfish
Wadley Lake	1177600	Banded Mystery Snail,Chinese Mystery Snail,Curly-Leaf Pondweed,Eurasian Water-Milfoil,Rusty Crayfish
Wausau Dam Lake	1469700	Eurasian Water-Milfoil
Wisconsin River	1179900	Eurasian Water-Milfoil,Rusty Crayfish

AIS Reported in Our Counties as of 12-17-13

PORTAGE COUNTY		
Waterbody Name	**WBIC**	**Invasive Species**
Adams Lake	267800	Banded Mystery Snail
Amherst Millpond	268200	Banded Mystery Snail,Curly-Leaf Pondweed,Rusty Crayfish
Bear Lake	181900	Chinese Mystery Snail,Eurasian Water-Milfoil
Biron Flowage	1396900	Eurasian Water-Milfoil
Collins Lake	270200	Chinese Mystery Snail,Eurasian Water-Milfoil
Ebert Lake	267700	Banded Mystery Snail
Flume Creek	286600	Rusty Crayfish
Fountain Lake	262200	Banded Mystery Snail
Jordan Pond	1403600	Banded Mystery Snail,Curly-Leaf Pondweed,Eurasian Water-Milfoil
Lake Du Bay	1412200	Chinese Mystery Snail,Curly-Leaf Pondweed,Rusty Crayfish
Lake Emily	189800	Banded Mystery Snail,Curly-Leaf Pondweed,Eurasian Water-Milfoil,Hybrid Eurasian / Northern Water-Milfoil,Rusty Crayfish
Lake Helen	287200	Eurasian Water-Milfoil
Lake Joanis	3000096	Chinese Mystery Snail,Eurasian Water-Milfoil,Freshwater Jellyfish
Lake Lime	190100	Banded Mystery Snail,Chinese Mystery Snail,Curly-Leaf Pondweed,Eurasian Water-Milfoil
McDill Pond	1403200	Banded Mystery Snail,Chinese Mystery Snail,Curly-Leaf Pondweed,Eurasian Water-Milfoil,Hybrid Eurasian / Northern Water-Milfoil,Japanese Knotweed,Rusty Crayfish
Mosquito Creek	1396600	Rusty Crayfish
Onland Lake	195100	Banded Mystery Snail
Pac-A-Wa Lake	1009300	Eurasian Water-Milfoil
Peterson Creek	275400	Viral Hemorrhagic Septicemia
Pickerel Lake	195900	Banded Mystery Snail,Eurasian Water-Milfoil,Phragmites (non-native)
Plover River	1402800	Curly-Leaf Pondweed,Rusty Crayfish
Plover River Flowage	1403000	Curly-Leaf Pondweed,Eurasian Water-Milfoil
Rinehart Lake	278600	Banded Mystery Snail
Sannes Creek	276000	Viral Hemorrhagic Septicemia
Spring Lake	267200	Banded Mystery Snail,Curly-Leaf Pondweed
Springville Pond	1402300	Banded Mystery Snail,Curly-Leaf Pondweed,Eurasian Water-Milfoil,Japanese Knotweed,Rusty Crayfish,Water Lettuce
Stoltenburg Lake	199400	Banded Mystery Snail
Sunset Lake	199700	Banded Mystery Snail,Curly-Leaf Pondweed,Eurasian Water-Milfoil

AIS Reported in Our Counties as of 12-17-13

PORTAGE COUNTY		
Waterbody Name	**WBIC**	**Invasive Species**
Thomas Lake	200300	Banded Mystery Snail,Chinese Mystery Snail,Curly-Leaf Pondweed,Eurasian Water-Milfoil
Tomorrow River	270400	Purple Loosestrife
Tree Lake	289400	Banded Mystery Snail,Chinese Mystery Snail,Curly-Leaf Pondweed
Unnamed	267600	Banded Mystery Snail
Waupaca River	257400	Banded Mystery Snail,Purple Loosestrife,Rusty Crayfish
Wazeecha Lake	1391200	Banded Mystery Snail,Curly-Leaf Pondweed,Eurasian Water-Milfoil,Rusty Crayfish,Zebra Mussel
Wisconsin R Fl C3-Stevens Pt	1409400	Curly-Leaf Pondweed,Eurasian Water-Milfoil
Wisconsin River Flowage Number 1 51	1402700	Curly-Leaf Pondweed
Wolf Lake	241100	Banded Mystery Snail,Eurasian Water-Milfoil,Purple Loosestrife

AIS Reported in Our Counties as of 12-17-13

WAUPACA COUNTY		
Waterbody Name	**WBIC**	**Invasive Species**
Austin Creek	256200	Viral Hemorrhagic Septicemia
Bailey Lake	254900	Eurasian Water-Milfoil,Purple Loosestrife
Bass Lake	264200	Eurasian Water-Milfoil
Bear Lake	279700	Banded Mystery Snail,Chinese Mystery Snail,Purple Loosestrife,Viral Hemorrhagic Septicemia
Beasley Lake	262300	Banded Mystery Snail,Eurasian Water-Milfoil,Zebra Mussel
Brekk Lake	183000	Banded Mystery Snail,Eurasian Water-Milfoil,Hybrid Eurasian / Northern Water-Milfoil
Campbell Lake	284300	Banded Mystery Snail,Chinese Mystery Snail,Eurasian Water-Milfoil,Purple Loosestrife
Casey Lake	273200	Curly-Leaf Pondweed,Eurasian Water-Milfoil,Purple Loosestrife
Cedar Lake	283800	Banded Mystery Snail,Eurasian Water-Milfoil
Columbia Lake	262400	Curly-Leaf Pondweed,Eurasian Water-Milfoil,Purple Loosestrife,Rusty Crayfish,Zebra Mussel
Crystal Lake	184100	Banded Mystery Snail
Crystal River	258200	Banded Mystery Snail,Rusty Crayfish
Dake Lake	264700	Banded Mystery Snail,Eurasian Water-Milfoil,Purple Loosestrife
Embarrass River	291900	Rusty Crayfish,Viral Hemorrhagic Septicemia
Engibretson Creek	273300	Viral Hemorrhagic Septicemia
Flume Creek	286600	Rusty Crayfish
George Lake	265400	Eurasian Water-Milfoil
Goodhal Lake	281900	Banded Mystery Snail,Chinese Mystery Snail
Graham Lake	279300	Banded Mystery Snail,Chinese Mystery Snail,Purple Loosestrife
Grass Lake	279500	Banded Mystery Snail,Chinese Mystery Snail
Hartman Lake	263900	Banded Mystery Snail,Chinese Mystery Snail
Hatch Lake	282800	Banded Mystery Snail,Eurasian Water-Milfoil
Hatton Creek	255700	Viral Hemorrhagic Septicemia
Iola Lake	278800	Banded Mystery Snail,Curly-Leaf Pondweed,Eurasian Water-Milfoil,Purple Loosestrife
Kinney Lake	294900	Banded Mystery Snail,Curly-Leaf Pondweed,Eurasian Water-Milfoil
Knight Lake	262700	Banded Mystery Snail
Knight Lake	5551281	Banded Mystery Snail,Zebra Mussel
Lake Orlando	262600	Rusty Crayfish
Limekiln Lake	264900	Eurasian Water-Milfoil,Zebra Mussel
Little Wolf River	272400	Banded Mystery Snail,Rusty Crayfish,Viral Hemorrhagic Septicemia
Long Lake	261200	Curly-Leaf Pondweed,Eurasian Water-Milfoil,Zebra Mussel

AIS Reported in Our Counties as of 12-17-13

WAUPACA COUNTY		
Waterbody Name	**WBIC**	**Invasive Species**
Long Lake	296100	Curly-Leaf Pondweed,Eurasian Water-Milfoil
Manawa Millpond	280400	Chinese Mystery Snail,Curly-Leaf Pondweed,Eurasian Water-Milfoil,Purple Loosestrife
Marion Millpond	294500	Banded Mystery Snail,Curly-Leaf Pondweed,Eurasian Water-Milfoil
Marl Lake	264100	Banded Mystery Snail
McCrossen Lake	265100	Eurasian Water-Milfoil,Zebra Mussel
Miner Lake	264800	Banded Mystery Snail,Eurasian Water-Milfoil,Zebra Mussel
Mirror Lake	258700	Banded Mystery Snail,Curly-Leaf Pondweed,Purple Loosestrife
Mouse Creek	272500	Viral Hemorrhagic Septicemia
Myklebust Lake	278100	Banded Mystery Snail
Nessling Lake	265200	Eurasian Water-Milfoil,Zebra Mussel
North Lake	279400	Banded Mystery Snail,Chinese Mystery Snail
Ogdensburg Pond	273800	Banded Mystery Snail,Curly-Leaf Pondweed
Otter Lake	265700	Eurasian Water-Milfoil
Partridge Crop Lake	272000	Eurasian Water-Milfoil
Partridge Lake	253800	Chinese Mystery Snail,Curly-Leaf Pondweed,Eurasian Water-Milfoil,Flowering Rush,Rusty Crayfish,Zebra Mussel
Peterson Creek	275400	Viral Hemorrhagic Septicemia
Pigeon Lake	293300	Chinese Mystery Snail,Curly-Leaf Pondweed,Eurasian Water-Milfoil,Flowering Rush,Rusty Crayfish
Pigeon River	293100	Viral Hemorrhagic Septicemia
Pope Lake	262900	Banded Mystery Snail,Chinese Mystery Snail,Curly-Leaf Pondweed
Rainbow Lake	265300	Eurasian Water-Milfoil,Zebra Mussel
Rollofson Lake	277600	Banded Mystery Snail,Purple Loosestrife
Round Lake	265000	Eurasian Water-Milfoil,Zebra Mussel
Sannes Creek	276000	Viral Hemorrhagic Septicemia
School Section Lake	283600	Curly-Leaf Pondweed,Eurasian Water-Milfoil
Shadow Lake	258600	Banded Mystery Snail,Curly-Leaf Pondweed,Eurasian Water-Milfoil,Purple Loosestrife
Silver Lake	198800	Curly-Leaf Pondweed,Eurasian Water-Milfoil
Silver Lake	198900	Eurasian Water-Milfoil
Skunk Lake	276700	Viral Hemorrhagic Septicemia
South Branch Little Wolf River	272600	Viral Hemorrhagic Septicemia
Spencer Lake	255000	Viral Hemorrhagic Septicemia
Stratton Lake	259600	Banded Mystery Snail,Eurasian Water-Milfoil,Purple Loosestrife
Sunset Lake	265500	Eurasian Water-Milfoil,Zebra Mussel

AIS Reported in Our Counties as of 12-17-13

WAUPACA COUNTY		
Waterbody Name	**WBIC**	**Invasive Species**
Taylor Lake	265600	Eurasian Water-Milfoil,Zebra Mussel
Unnamed	257500	Viral Hemorrhagic Septicemia
Unnamed	263200	Banded Mystery Snail
Unnamed	263700	Banded Mystery Snail
Waupaca River	257400	Rusty Crayfish,Viral Hemorrhagic Septicemia
Weyauwega Lake	257700	Banded Mystery Snail,Curly-Leaf Pondweed,Flowering Rush,Japanese Knotweed
White Lake	272900	Banded Mystery Snail,Eurasian Water-Milfoil,Viral Hemorrhagic Septicemia
Wolf River	241300	Chinese Mystery Snail,Viral Hemorrhagic Septicemia,Zebra Mussel

AIS Reported in Our Counties as of 12-17-13

WAUSHARA COUNTY		
Waterbody Name	**WBIC**	**Invasive Species**
Alder Creek	243100	Viral Hemorrhagic Septicemia
Alpine Lake	245650	Banded Mystery Snail,Curly-Leaf Pondweed,Eurasian Water-Milfoil,Hybrid Eurasian / Northern Water-Milfoil,Japanese Knotweed,Purple Loosestrife
Auroraville Millpond	244800	Curly-Leaf Pondweed,Eurasian Water-Milfoil
Austin Creek	256200	Viral Hemorrhagic Septicemia
Bass Lake	150900	Banded Mystery Snail,Curly-Leaf Pondweed
Beans Lake	101300	Banded Mystery Snail
Big Roche A Cri Creek	1374100	Rusty Crayfish
Bughs Lake	102100	Banded Mystery Snail,Curly-Leaf Pondweed,Eurasian Water-Milfoil,Hybrid Eurasian / Northern Water-Milfoil
Curtis Lake	156300	Banded Mystery Snail
Deer Lake	102900	Banded Mystery Snail,Eurasian Water-Milfoil
Deer Lake	980300	Banded Mystery Snail
Fish Lake	186100	Banded Mystery Snail,Curly-Leaf Pondweed
Fish Lake	985000	Banded Mystery Snail,Curly-Leaf Pondweed,Eurasian Water-Milfoil
Flynns Quarry	103500	Eurasian Water-Milfoil
Fox River	117900	Rusty Crayfish
Gilbert Lake	186400	Banded Mystery Snail,Eurasian Water-Milfoil,Zebra Mussel
Hatton Creek	255700	Viral Hemorrhagic Septicemia
Hills Lake	105200	Banded Mystery Snail,Eurasian Water-Milfoil,Hybrid Eurasian / Northern Water-Milfoil
Hills Lake	182100	Banded Mystery Snail,Eurasian Water-Milfoil,Zebra Mussel
Irogami Lake	103900	Banded Mystery Snail,Curly-Leaf Pondweed,Eurasian Water-Milfoil
Johns Lake	245800	Banded Mystery Snail,Eurasian Water-Milfoil
Kristine Lake 2	249300	Eurasian Water-Milfoil
Kusel Lake	189600	Banded Mystery Snail,Curly-Leaf Pondweed,Hybrid Eurasian / Northern Water-Milfoil
Lake Huron	994900	Banded Mystery Snail,Chinese Mystery Snail,Eurasian Water-Milfoil
Lake Lucerne	104600	Banded Mystery Snail,Curly-Leaf Pondweed,Eurasian Water-Milfoil
Lake Morris	246500	Banded Mystery Snail,Curly-Leaf Pondweed,Eurasian Water-Milfoil
Lake Napowan	190200	Banded Mystery Snail,Curly-Leaf Pondweed,Eurasian Water-Milfoil,Hybrid Eurasian / Northern Water-Milfoil

AIS Reported in Our Counties as of 12-17-13

WAUSHARA COUNTY		
Waterbody Name	**WBIC**	**Invasive Species**
Lake Poygan	242800	Chinese Mystery Snail,Curly-Leaf Pondweed,Eurasian Water-Milfoil,Flowering Rush,Viral Hemorrhagic Septicemia,Zebra Mussel
Long Lake	191100	Banded Mystery Snail,Purple Loosestrife
Magdanz Creek	256300	Viral Hemorrhagic Septicemia
Marl Lake	105800	Banded Mystery Snail,Curly-Leaf Pondweed
Mecan Springs	158600	Curly-Leaf Pondweed,Eurasian Water-Milfoil
Meilke Lake	105900	Chinese Mystery Snail
Pearl Lake	195400	Banded Mystery Snail,Curly-Leaf Pondweed,Eurasian Water-Milfoil,Hybrid Eurasian / Northern Water-Milfoil
Pine Lake	196100	Banded Mystery Snail,Eurasian Water-Milfoil
Pine Lake	1012000	Eurasian Water-Milfoil
Pine River	247800	Viral Hemorrhagic Septicemia
Plainfield Lake	1012500	Banded Mystery Snail
Pleasant Lake	106900	Banded Mystery Snail,Eurasian Water-Milfoil,Hybrid Eurasian / Northern Water-Milfoil
Porters Lake	246900	Banded Mystery Snail,Eurasian Water-Milfoil,Purple Loosestrife
Poy Sippi Millpond	248300	Banded Mystery Snail,Curly-Leaf Pondweed,Purple Loosestrife,Rusty Crayfish
Pumpkinseed Creek	243300	Viral Hemorrhagic Septicemia
Redgranite Quarry	196900	Banded Mystery Snail,Eurasian Water-Milfoil,Freshwater Jellyfish
Round Lake	107100	Curly-Leaf Pondweed,Eurasian Water-Milfoil
Round Lake	197300	Banded Mystery Snail,Eurasian Water-Milfoil
Saxeville Millpond	249600	Banded Mystery Snail,Curly-Leaf Pondweed,Eurasian Water-Milfoil,Purple Loosestrife
Silver Lake	107900	Banded Mystery Snail,Curly-Leaf Pondweed,Eurasian Water-Milfoil,Zebra Mussel
Silver Lake	247700	Banded Mystery Snail,Curly-Leaf Pondweed
Spring Lake	149000	Banded Mystery Snail,Curly-Leaf Pondweed,Eurasian Water-Milfoil
Twin Lake	182300	Banded Mystery Snail,Eurasian Water-Milfoil
Twin Lakes	200800	Banded Mystery Snail
Unnamed	3000446	Banded Mystery Snail,Eurasian Water-Milfoil
Wautoma Pond	152700	Curly-Leaf Pondweed
West Branch Mill P.(White River)	152200	Banded Mystery Snail,Curly-Leaf Pondweed,Eurasian Water-Milfoil
White River Fl (Lower Pond)	151500	Banded Mystery Snail,Curly-Leaf Pondweed,Eurasian Water-Milfoil

AIS Reported in Our Counties as of 12-17-13

WAUSHARA COUNTY		
Waterbody Name	**WBIC**	**Invasive Species**
Wild Rose Pond	251600	Banded Mystery Snail,Curly-Leaf Pondweed,Eurasian Water-Milfoil
Willow Creek	243700	Viral Hemorrhagic Septicemia
Wilson Lake	250000	Banded Mystery Snail,Curly-Leaf Pondweed,Eurasian Water-Milfoil

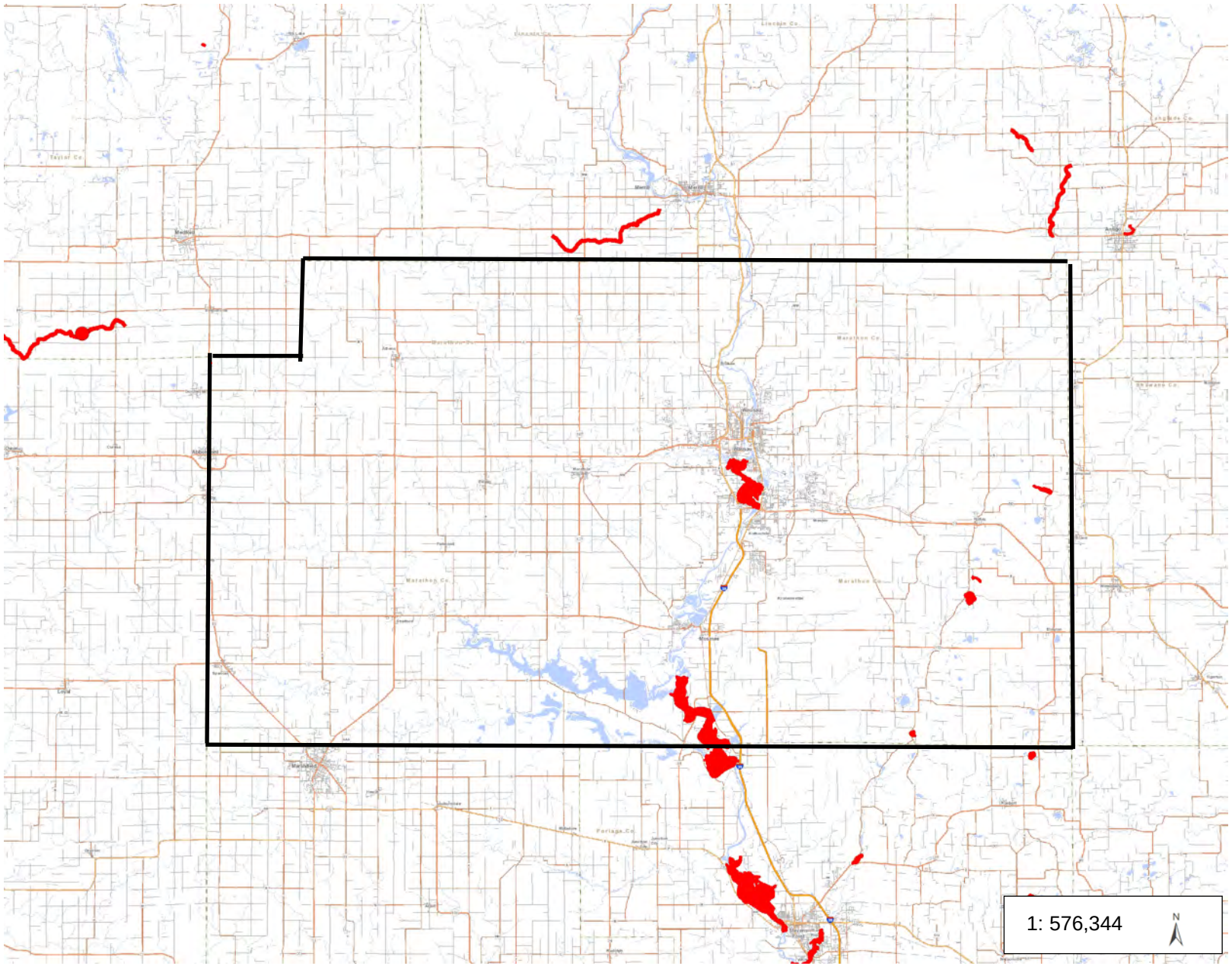
AIS Reported in Our Counties as of 12-17-13

WOOD COUNTY		
Waterbody Name	**WBIC**	**Invasive Species**
Biron Flowage	1396900	Eurasian Water-Milfoil
Cranberry Creek	1354800	Rusty Crayfish
Dexter Lake	1369900	Chinese Mystery Snail,Curly-Leaf Pondweed
Hemlock Creek	1366300	Eurasian Water-Milfoil
Lake Kaunewinne	1371900	Rusty Crayfish
Moccasin Creek	1388000	Rusty Crayfish
Mosquito Creek	1396600	Rusty Crayfish
Nepco Lake	1389800	Chinese Mystery Snail,Curly-Leaf Pondweed,Eurasian Water-Milfoil,Purple Loosestrife,Rusty Crayfish,Zebra Mussel
Petenwell Lake	1377100	Eurasian Water-Milfoil,Zebra Mussel
Puff Creek	1371500	Rusty Crayfish
Ross Lake	1382900	Eurasian Water-Milfoil
Unnamed	5585354	Curly-Leaf Pondweed
Unnamed T21n R06e S06-10cb	1388800	Curly-Leaf Pondweed
Wazeecha Lake	1391200	Banded Mystery Snail,Curly-Leaf Pondweed,Eurasian Water-Milfoil,Rusty Crayfish,Zebra Mussel
Wisconsin Rapids Flowage	1396200	Rusty Crayfish
Wisconsin River	1179900	Zebra Mussel
Yellow River	1352800	Rusty Crayfish

Appendix 6

Countywide Presence and Absence Maps
(EWM and CLP)

Marathon County Curly leaf Pondweed



Legend

- Curly-Leaf Pondweed Points
- Curly-Leaf Pondweed Lines
- Curly-Leaf Pondweed Areas

1: 576,344

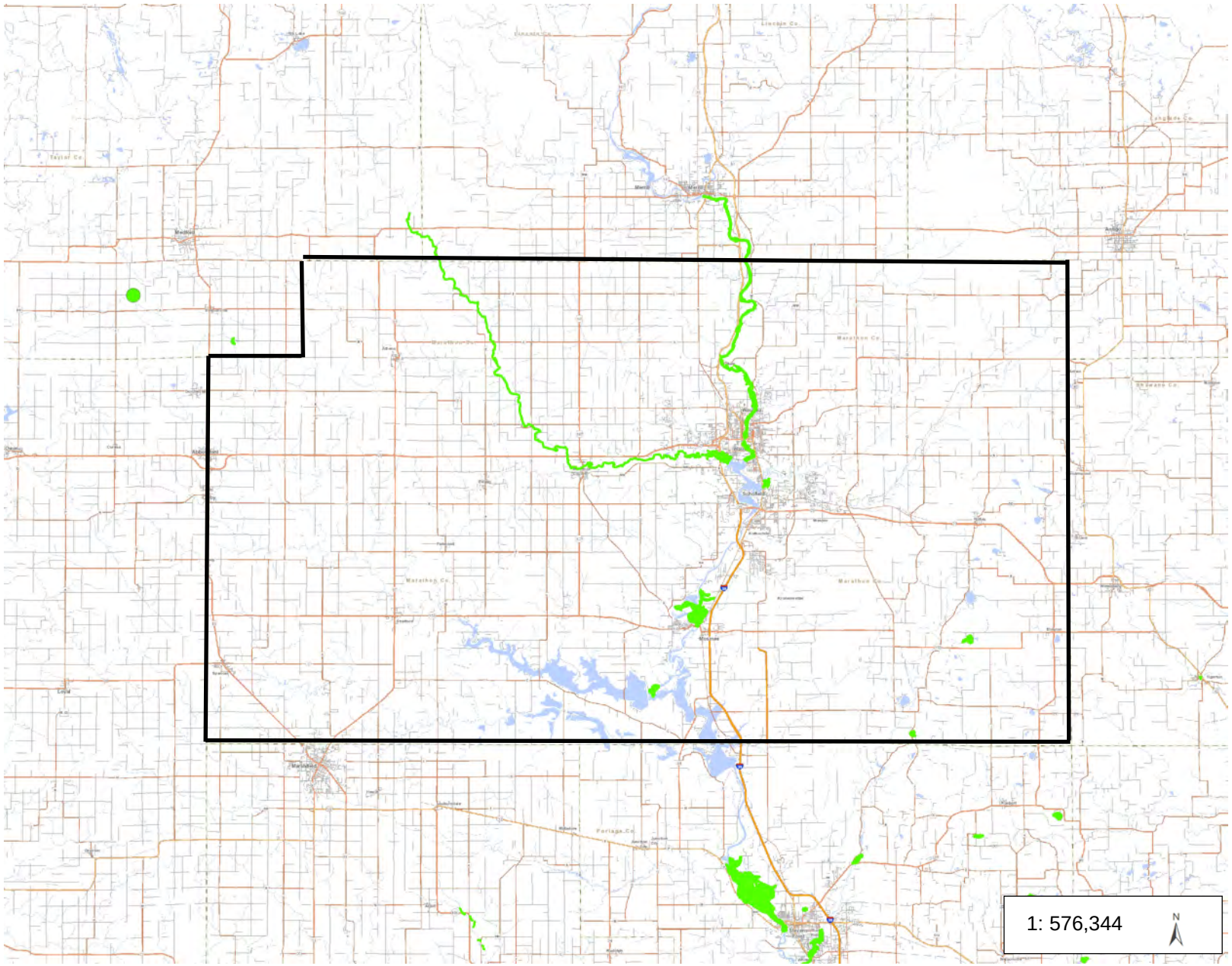
N

Notes

18.2 0 9.10 18.2 Miles

NAD_1983_HARN_Wisconsin_TM

Marathon County Eurasian Watermilfoil



Legend

- Eurasian Water-Milfoil (include Points
- Eurasian Water-Milfoil (include Lines
- Eurasian Water-Milfoil (include Areas

Notes

18.2 0 9.10 18.2 Miles

NAD_1983_HARN_Wisconsin_TM

DISCLAIMER: The information shown on these maps has been obtained from various sources, and are of varying age, reliability and resolution. These maps are not intended to be used for navigation, nor are these maps an authoritative source of information about legal land ownership or public access. No warranty, expressed or implied, is made aregarding accuracy, applicability for a particular use, completemenss, or legality of the information depicted on this map. For more information, see the DNR Legal Notices web page: http://dnr.wi.gov/org/legal/

Portage County Eurasian watermilfoil

Legend

- Eurasian Water-Milfoil (include Points
- Eurasian Water-Milfoil (include Lines
- Eurasian Water-Milfoil (include Areas

Notes

1: 576,344

N

18.2 0 9.10 18.2 Miles

NAD_1983_HARN_Wisconsin_TM

Portage County Curly leaf Pondweed

Legend

- Curly-Leaf Pondweed Points
- Curly-Leaf Pondweed Lines
- Curly-Leaf Pondweed Areas

1: 576,344

N

18.2 0 9.10 18.2 Miles

NAD_1983_HARN_Wisconsin_TM

Notes

Waupaca County Curly leaf Pondweed

Legend

- Curly-Leaf Pondweed Points
- Curly-Leaf Pondweed Lines
- Curly-Leaf Pondweed Areas

Notes

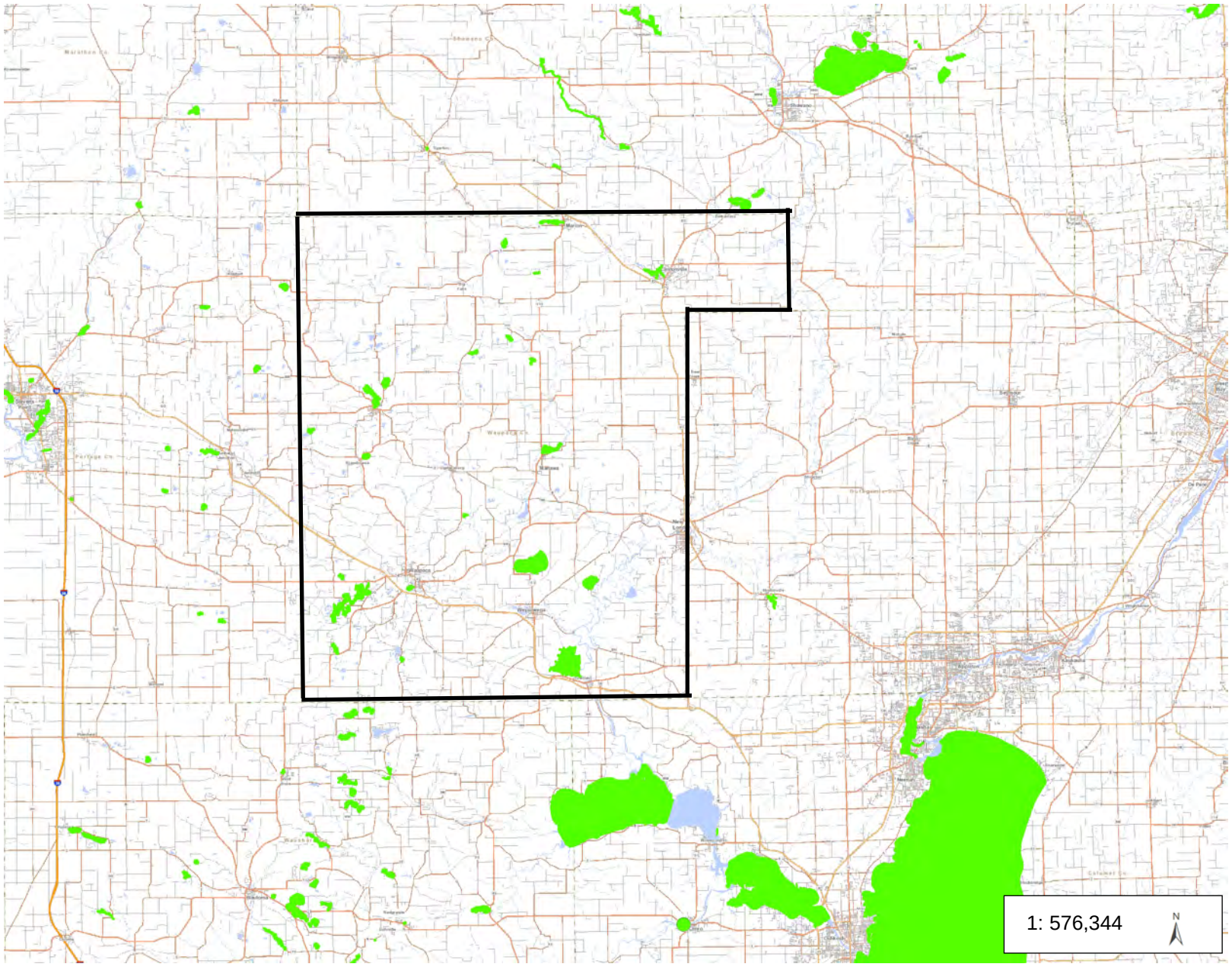
1: 576,344

N

18.2 0 9.10 18.2 Miles

NAD_1983_HARN_Wisconsin_TM

Waupaca County Eurasian watermilfoil



Legend

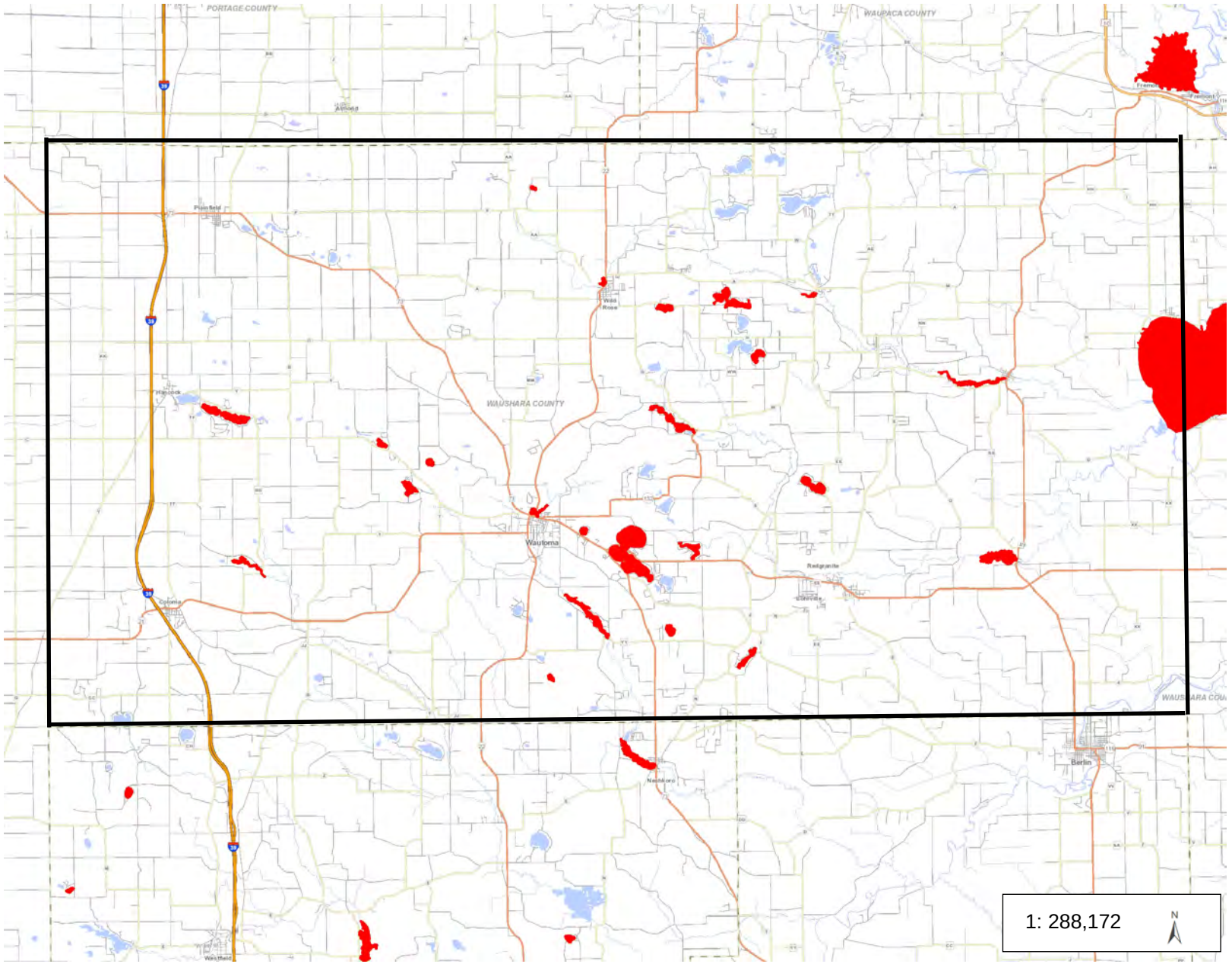
- Eurasian Water-Milfoil (include Points
- Eurasian Water-Milfoil (include Lines
- Eurasian Water-Milfoil (include Areas

Notes

18.2 0 9.10 18.2 Miles

NAD_1983_HARN_Wisconsin_TM

Waushara County Curly leaf Pondweed



Legend

- Curly-Leaf Pondweed Points
- Curly-Leaf Pondweed Lines
- Curly-Leaf Pondweed Areas

1: 288,172

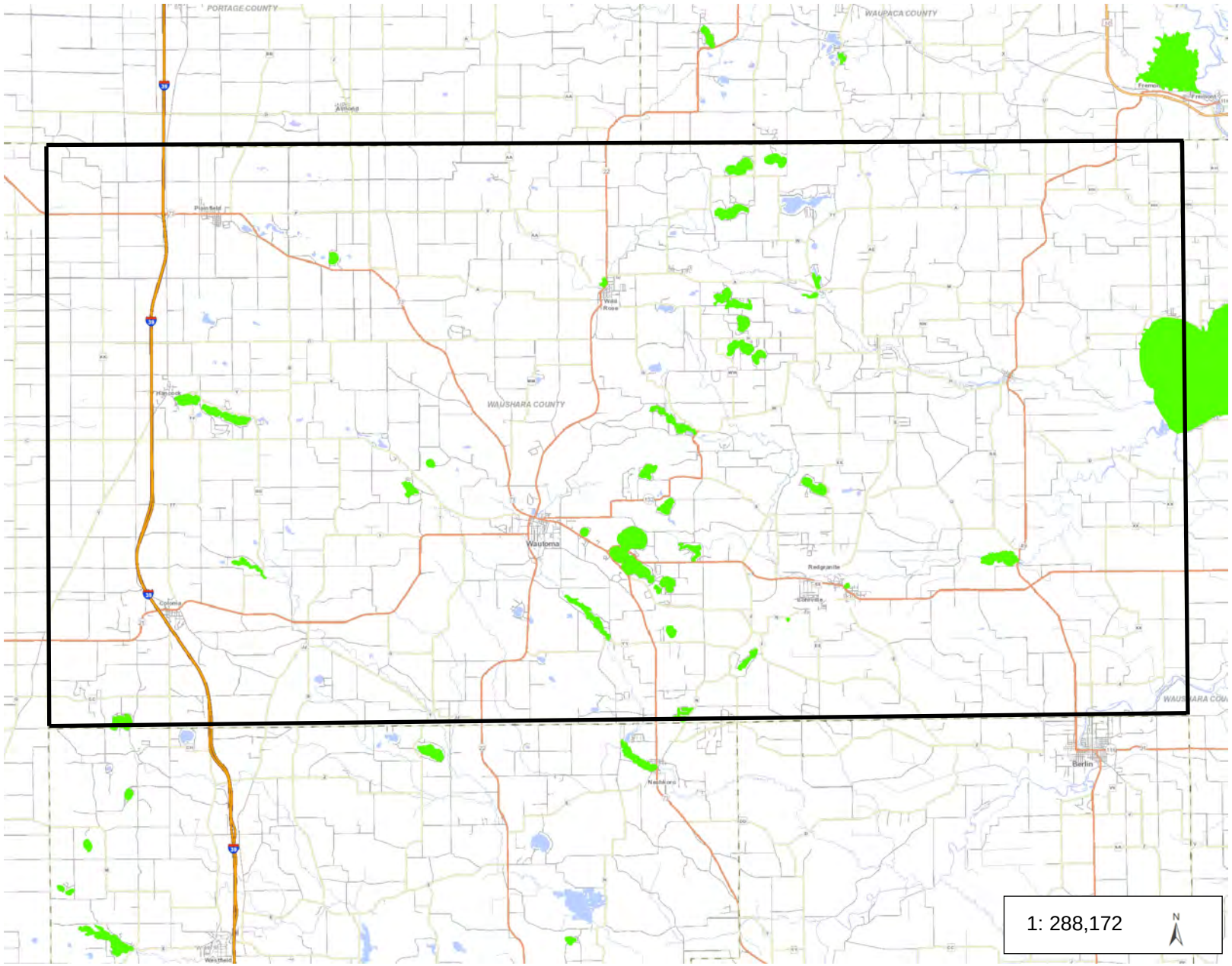
N

Notes

9.1 0 4.55 9.1 Miles

NAD_1983_HARN_Wisconsin_TM

Waushara County Eurasian Watermilfoil



Legend

- Eurasian Water-Milfoil (include Points
- Eurasian Water-Milfoil (include Lines
- Eurasian Water-Milfoil (include Areas

1: 288,172

N

Notes

9.1 0 4.55 9.1 Miles

NAD_1983_HARN_Wisconsin_TM

Wood County Curly leaf Pondweed

Legend

- Curly-Leaf Pondweed Points
- Curly-Leaf Pondweed Lines
- Curly-Leaf Pondweed Areas

1: 576,344

N

18.2 0 9.10 18.2 Miles

NAD_1983_HARN_Wisconsin_TM

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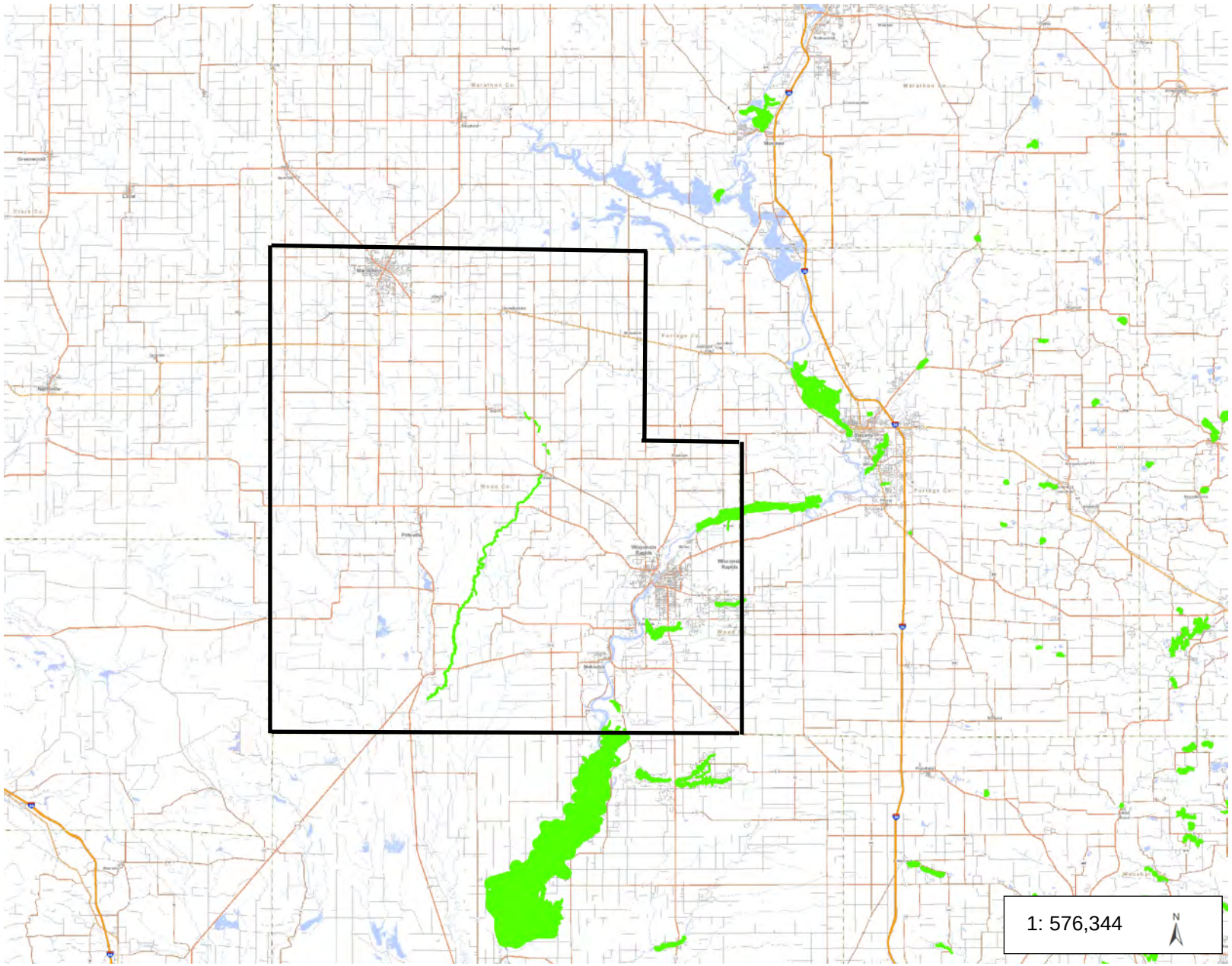
Notes

Wood County Eurasian Watermilfoil



Legend

- Eurasian Water-Milfoil (include Points
- Eurasian Water-Milfoil (include Lines
- Eurasian Water-Milfoil (include Areas

Notes

18.2 0 9.10 18.2 Miles

NAD_1983_HARN_Wisconsin_TM

Appendix 7

List of Cooperating Bait Shops

Bait Shops Willing To Sign on to State Initiative in 2012
MARATHON COUNTY
Plover River Mercantile
Cyran's Du Bay Pit Stop
Gander Mountain
Lietz's Convenience Store
Mosinee Bait & Taxidermy
The Sportsman's Repair Shop
51 Sport Shop Inc
Balz Bait
Morrill's Bait Shop
PORTAGE COUNTY
Bobber Down Live Bait & Tackle
Cliff's Bait & Tackle
Rosholt Hardware Hank
White Pine Baits
Central Wisconsin Fish Farms, LLC
Gollon Bros Wholesale Live Bait Inc
Northern Bait & Tackle
Worth CO
WAUPACA COUNTY
Larry & Jan's Bayou Resort
Ma's Bait & Tackle Shop
Wolf River Outfitters
Johnny's the Little Shoppe of Bait
Quiver N' Minnow
The Minnow Bucket
Re-Bob's Bait 'N' Tackle
WAUSHARA COUNTY
Malchow's Nature Shop LLC
S & L Live Bait Shop
Lauritzens Sport Shop
Mr. Ed's Place Bait Shop

***note- Wood County bait shops were contacted by Adam Scheuennaman**