WISCONSIN DEPARTMENT OF NATURAL RESOURCES
AQUATIC INVASIVE SPECIES GRANT PROGRAM

Application Materials

Eagle River Chain of Lakes Aquatic Invasive Species Project

Phase VI: 2014-2015

Prepared for the

Unified Lower Eagle River Chain of Lakes Commission

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INTRODUCTION

The Lower Eagle River Chain of Lakes, Vilas County, Wisconsin is composed of 10 lake basins and parts of two river sections comprising of 62 miles of shoreline and over 3,500 water surface acres. The complete Eagle River Chain of Lakes including the upper lakes (referred to as the Three Lakes Chain) comprises 11,295 acres. Over 1,400 riparians own real estate on the chain paying taxes on over 500 million dollars of property. Further, the chain is an integral part of Vilas County's 250 million dollar-tourist trade.

The Lower Eagle River Chain is arguably the most high profile system in northern Wisconsin, highly sought after amongst recreationists and anglers. The chain contains 14 boat landings with over 110 vehicle parking spaces, 5 walk-in sites, 7 public parks, 15 motels/condominiums, 52 resorts and cottages, 2 bed and breakfasts, and 1 private campground. The chain is also frequented by numerous transient boaters during the 5 permitted fishing tournaments (Headwaters Muskie's Inc. Spring Classic, Professional Muskie Tournament, Annual National Championship Musky Open, Wisconsin Muskie Tour, and Paul's Pro Am).

Likely due to the intense recreational use the system sees, Eurasian water milfoil (EWM) was introduced to the Eagle River Chain at some point in time. Since 2001, various lake groups have recognized the problems caused by this invasive plant. These groups have attempted to manage varying levels of EWM infestation primarily through herbicide treatments. The latest of these treatments was completed during early spring 2013. Data analysis shows that the treatments were quite effective at reducing densities of EWM colonies within the Eagle River Chain; a full description of management activities may be found in the *2012 Treatment Report* and *the Eagle River Chain of Lakes AIS Control & Prevention Project Aquatic Plant Community Reassessment (March 2013).*

In 2005, the Town of Washington successfully applied for multiple Wisconsin Dept. of Natural Resources (WDNR) Lake Management Planning Grants to fund the development of aquatic plant management (APM) plans for each of the project lakes. The APM plans were completed in 2007. Understanding that the degradation of the Eagle Chain would be disastrous for the local and county economies, four municipalities including the Towns of Washington, Lincoln, and Cloverland, and the City of Eagle River, partnered to fund the completion of the plans. During the planning project, it was realized that the Lower Eagle Chain of Lakes must be viewed as a system if aquatic invasive species (AIS) were to be effectively managed. In 2006, after public discussion, the parties involved agreed to form a public/private partnership out of which a joint powers agreement was created forming the Unified Lower Eagle River Chain of Lakes Commission (ULERCLC). The ULERCLC is a unique partnership and the first of its kind in the State of Wisconsin, consisting of representatives from each of the four municipalities bordering Lower Eagle River Chain and representatives from each of the ten main waterbodies that make up the chain. In total 25 members sit on the commission.

The Eagle River Chain of Lakes Association (ERCLA) is currently taking the lead in developing an updated management plan for this outstanding natural resource. This phased project would focus on a few lakes at a time, moving from upstream to downstream

(Map 1). The group now conducts numerous management actions on the system in addition to assisting the ULERCLC in managing Eurasian water milfoil on the Chain:

- Pre-existing (and continuing) Projects
    - The group has actively participated in a Clean Boats/Clean Waters program through Vilas County AIS Coordinator Ted Ritter, where over 400 hours are competed on Eagle River Chain public access points between volunteers and paid workers.
    - ERCLA volunteers have assisted the ULERCLC in collecting herbicide concentration data within and outside of EWM treatment areas as part of a collaborative study between the WDNR and United States Army Corps of Engineers that aims to understand herbicide dilution and mixing in lakes. This effort will be continued in 2013.
    - In 2011, 119 people, many of them ERCLA members, signed the ULERCLC Pledge, which encourages riparian owners to reduce erosion on their shorelines and pull only non-native plants – not beneficial native plants – from the lake. This initiative was brought about through the ULERCLC's AIS monitoring grant.
    - Narrow and shallow constrictions between lakes have been designated as slow-no-wake zones, marked with buoys, to increase public safety and decrease negative effects on near-shore areas (Photo 1). Additional slow-no-wake zones have also been designated in areas of high native biodiversity to minimize the effects that high speed boating can have on the ecology of these areas.
    - A shoreline demonstration site was created at Lions Park at the Yellow Birch Lake public landing. Shoreline emergent plant species were planted in this area to enhance the valuable shoreline habitat as well as to serve as a demonstration site of what an enhanced shoreline can look like. This area now contains bulrushes, joe-pye weed, and common bur reeds.
    - ERCLA has implemented and continues to fund an innovative way to bridge the gap between traditional AIS signage at the boat landings and boats on the system. Named the 'bucket brigade," this unique program provides bright and flashy (pink) 3-gallon buckets with an AIS and EWM identification materials at each of the boat landings for recreationalists to take with them while on the water (Photo 2). In addition to providing an onboard AIS message, the users are prompted to put EWM fragments into the bucket and dispose of the plant materials. This signage is aimed at boaters leaving the system.

Photo 1. Slow-no-wake Zone Signage on the Eagle River Chain.

Photo 2. Bucket Brigade at Public Landing on the Chain.

- New Projects
  - With the help of a professional webmaster, ERCLA launched a new website in early 2013.
  - In 2013, the association began sponsoring a scholarship for Northland Pine High School (Eagle River) students. This grant awards a $1,000 scholarship to a senior entering a natural resource-related program.
  - Beginning in the fall of 2013, ERCLA is sponsoring the Positive Student Behavior Award Program for high school students who do good deeds. The award is given by the discretion of a teacher, and includes a gift certificate to a local business.
  - As a part of the new planning project, an informative brochure was created and sent to 1,700 riparian owners, local businesses and marinas with useful information including AIS-related programs and initiatives, a map with useful locations pinpointed, and ERCLA membership form.

In tandem with the lake management planning project being undertaken by the ERCLA, the ULERCLC will continue to pursue its management goals of reducing the population of EWM within the Eagle River Chain of Lakes. The ULERCLC understands the importance of the Eagle River Chain, not only in terms of local and state economies, but also its importance in the lives of people from the area and well beyond. As a result, the ULERCLC is taking the lead in the management of this outstanding natural resource. The commission has formulated a method in which to divide the costs associated with implementing the management plans among the four municipalities based upon each municipality's portion of shoreline. The municipalities will be responsible for 50% of the local share costs or 25% of the total cash costs of the project. The remaining portion would be covered by the individual lake associations and would equal 50% of the local share.

Their primary concern at this time is the potential impact EWM could have on the ecological stability and health of the Lower Eagle River Chain of Lakes and the subsequent

affects that could have on the chain's fishery, aesthetics, and the economic vitality of the area.

The project described here is the *sixth phase* aimed at bringing the chain's EWM infestation within more manageable levels. The commission understands that Wisconsin's AIS Grants Program was not created to fund any single system's fight against invasives in perpetuity, but instead was created to assist in the planning and initial control of AIS. It is the intent of the ULERCLC to utilize funds from the AIS Grant Program until final control goals have been met. Each year would build upon the success of the previous year, by reducing the density and quantity of EWM within the system, building the group's ability to monitor aquatic invasives on their own, and increasing stakeholder awareness about realistic AIS control. New components have been added to the program including Clean Boats Clean Waters training/participation and additional educational opportunities for stakeholders. At the end of this project, the ULERCLC will be better aligned to continue the management of AIS without the same level of support from professional lake managers and stage grant funds. The proposed project includes two years of treatment and monitoring.

PROBLEM IDENTIFICATION

EWM is known to exist in all 10 lakes and the length of river included within the project area (Map 1). Based on the 2012 peak-biomass survey of the chain completed by Onterra, Table 1 displays the amount of EWM in the lakes that were treated in 2013.

Table 1. Lower Eagle Chain of Lakes morphometric and select native and non-native aquatic plant characteristics. Lake areas derived from WDNR Hydroshiad GIS data layer.

Lake	Lake Area (acres)	% Littoral (< 20 feet)	Floristic Quality (2012)	EWM Littoral LFOO (2012 PI Survey)	Lake Acreage Treated in 2013	% Littoral Zone Containing Treatable EWM
Cranberry	956	99%	39.6	1.0	34.3	3.6%
Catfish	1,012	92%	34.7	0.2	4.5	0.4%
Duck	108	100%	26.7	0.7	0.0	0.0%
Eagle	572	100%	32.8	1.7	0.7	0.1%
Lynx	22	63%	28.4	0.0	0.0	0.0%
Otter	217	97%	26.3	3.4	0.0	0.0%
Scattering Rice	267	100%	34.6	0.0	1.6	0.6%
Voyageur	130	100%	32.7	2.0	1.2	0.9%
Watersmeet	455	99%	36.5	4.6	62.0	13.5%
Yellow Birch	202	100%	26.7	2.0	11.9	5.9%
Total	**3,941**				**116.2**	

Over the course of annual treatments from 2007 to 2012, EWM colonial acreage has been reduced by 69% from 278.2 acres in 2007 to 86.4 acres in 2012. EWM density also decreased markedly over this period, from EWM mainly comprised of dominant, highly dominant, and surface matted areas in 2007 to scattered and highly scattered areas in 2012 (Figure 1).

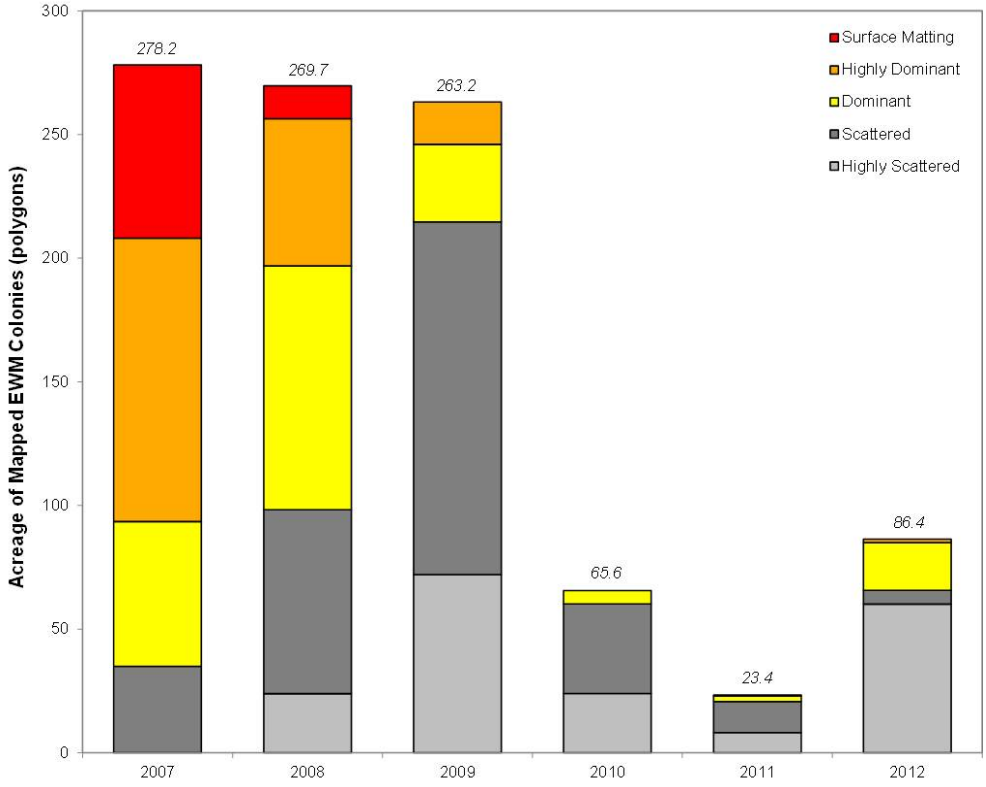


Figure 1. Acreage of mapped EWM colonies on the Eagle River Chain of Lakes from 2007-2012.

Chain-wide, approximately 90% of the EWM acreage treated in 2012 was reduced by at least one density rating, exceeding the qualitative success criteria (75% reduction). While Figure 3 shows that EWM acreage increased from 23.4 to 86.4 acres from 2011 to 2012, the majority of this acreage was comprised of areas of EWM that were not targeted for control in 2012. In addition, this increase in EWM acreage in 2012 was not evenly spread across the chain. Nearly 100% of the 63-acre increase in EWM in 2012 within the Eagle River Chain was located in Cranberry Lake and Watersmeet, while the EWM acreage within the other eight lakes remained virtually the same from 2011.

If EWM is allowed to propagate unchecked, it could impact the Eagle Chain in two ways; 1) through the degradation of native habitat that supports the system's well-known and highly-used fishery, not to mention other forms of aquatic and terrestrial wildlife that rely upon it and 2) by impacting navigation and other forms of recreation in portions of the chain. Both of these impacts would have subsequent economic affects on the local tourism industry, which as discussed above is important to the Eagle River area and the State of Wisconsin.

PROJECT GOALS

Bring EWM occurrences down to more easily controlled levels in the Lower Eagle River Chain of Lakes. The chief goal of this management project is to reduce the EWM population within the chain to more manageable levels while at the same time minimizing impacts to valuable native aquatic plant species. Reducing the EWM population will

alleviate recreational interference and improve the lake's ecological integrity. At the end of the two-year project, the ULERCLC is hopeful that the EWM populations in the chain would be reduced to levels that on an annual basis require minimal or no use of herbicides.

As discussed below, incorporating a robust hand-harvesting program within the proposed project will allow lake managers to understand the potential ability and limitations of this technique. If the goals of the two-year project are met and EWM populations are below thresholds that require herbicide control techniques, paid hand-harvesting methods may be sufficient to sustain the low-level EWM population.

The objective of this management action is not to eradicate EWM from the Eagle River Chain, as that would be impossible. The objective is to bring EWM down to more easily controlled levels. To meet this objective efficiently, a cyclic series of steps is used to plan and implement the treatment strategies. The series includes:

1. A lakewide assessment of EWM completed while the plant is at peak biomass (late summer).
2. Creation of treatment strategy for the following spring building upon success and failures documented from previous treatments (winter).
3. Verification and refinement of treatment plan immediately before treatments are implemented (early spring)
4. Completion of control actions (spring)
5. Assessment of results (summer after treatment).

Once Step 5 is completed, the process would begin again that same summer with the completion of a peak biomass survey. The survey results would then be used to create the next spring's treatment strategy.

Educate Eagle Chain stakeholders regarding the realistic management of EWM and other aquatic invasive species. There are many misconceptions among Eagle Chain stakeholders concerning EWM and other AIS. These misconceptions span a gamut including correct identification of native and non-native species, a realistic understanding of what levels of EWM require treatment, and a factual understanding of the risks and benefits associated with herbicide use in the aquatic environment. It is believed that through the educational and stakeholder participation opportunities offered in this project (all phases), many of the misconceptions that have held fast over the past years will be overcome. Many of these stakeholder opportunities have already begun, such as the Clean Boats/ Clean Waters program on three of the chain's boat landings, the series of news releases that have been put forth by the commission, ERCLA, and the AIS monitor training that was completed on the chain at the end of July 2007 (updated training scheduled for summer 2013). Throughout this project, all of these opportunities would be refreshed, expanded, and enhanced.

PROJECT SCOPE AND TIMELINE

Table 1 provides an approximate timeline for completion of the tasks. The schedule needs to be flexible to accommodate for weather, scheduling conflicts, etc., but it provides a general indication of the dates for completing the proposed components.

Table 1. Approximate Project Schedule

Task	2014				2015				
	W	Sp	Su	F	W	Sp	Su	F	W
EWM Pretreatment Survey									
Early Season AIS Survey									
Hand-harvesting Coordination (GPS data transfer)									
EWM Herbicide Treatment									
EWM Hand-removal (Volunteer & Paid Efforts)									
EWM Peak-biomass Survey									
Annual Treatment Reporting & Strategy Development									

Monitoring Strategy

The ULERCLC will initiate both herbicide and manual control methods to reach this goal. Monitoring control actions and defining their success can be completed through qualitative and quantitative methods. Qualitative monitoring will be completed during this project by comparing observational data such as EWM colony acreages and density ratings before and after the treatments. Quantitative monitoring methodologies have been conducted in 2007-2012 using a modified point-intercept methodology consistent with the Appendix D of the WDNR Guidance Document, *Aquatic Plant Management in Wisconsin* (WDNR 2010). The results of these activities are outlined within each year's annual *treatment report* and the *Eagle River Chain of Lakes AIS Control & Prevention Project Aquatic Plant Community Reassessment (March 2013).* The proposed project does not include annual quantitative monitoring and would rely on replication of whole-lake point-intercept surveys of all project lakes at a future date to understand long-term efficacy and selectivity.

The qualitative monitoring would be completed by comparing pretreatment (summer before the treatment) with post treatment (summer immediately following the treatment) EWM peak-biomass surveys. The surveys would occur annually during mid to late summer when this plant is at its peak-biomass (growth stage). Large colonies over 40 feet in diameter would be mapped using polygons (areas), while small colonies, clumps of plants, and single plants would be mapped using points. Colonies marked with polygons would also be designated using a 5-tiered density scale from *Highly Scattered* to *Surface Matting*. The results of the EWM Peak-biomass Survey will be used to develop the following year's control strategy.

Success Criteria

As discussed above, monitoring herbicide treatments and defining their success can be completed through qualitative methods. A successful treatment (herbicide or hand-removal methods) on a given mapped colony would include a reduction of EWM density as demonstrated by a decrease in one density rating, on a 5-tiered density rating scale as

discussed above. In terms of a treatment as a whole (lake-wide and chain-wide), at least 75% of the acreage treated that year would decrease by one level of density as described above for an individual site.

Early Season AIS Survey (ESAIS)

Curly-leaf pondweed has a very unusual life cycle compared to our native plants and is at peak biomass within Wisconsin lakes during late spring/early summer. Further, Eurasian water milfoil, which begins growing much earlier than most Wisconsin native plants, is often easily spotted from the surface during early summer as it towers above other lake plants. Therefore, an inventory would be conducted on the lake during the early summer to map curly-leaf pondweed and Eurasian water milfoil occurrences within the lake. Please note that this would not be a transect- or plot-based survey, but instead, would consist of a meander survey of the lake to locate these species. If curly-leaf pondweed is found, the colonies would be mapped utilizing the submeter-accuracy GPS technology. A map depicting each colony's location and density (through color-gradients) would be created based upon the data collected in June. If Eurasian water milfoil is mapped during this survey, these sites would reassessed and the plants remapped later in the summer when Eurasian water milfoil is most likely at its peak biomass.

Volunteer-based Surveillance Monitoring

Eagle River Chain riparians have been conducting volunteer-based AIS surveillance monitoring on the chain for several years. These resulting survey maps have pinpointed the location of EWM colonies, which professional ecologists have visited during late summer to map with advanced technology. The time and cost savings achieved through this well-established and fluid methodology have been great, and have led to an efficient method of identifying and mapping EWM on ten large waterbodies.

Volunteers would meet with Onterra ecologists to go over survey and GPS data collection techniques, and then conduct AIS surveys following the professional Early Season AIS surveys. Data from Onterra's surveys would be loaded onto five or more volunteer GPS units (Photo 3) so that duplicate data would not be taken. Volunteers would be instructed to search areas besides those already delineated, as well as 2013 treatment locations, as these will be covered heavily by Onterra, and mark additional AIS colonies should they appear. These data will be sent to Onterra staff prior to their EWM Summer Peak Biomass survey.

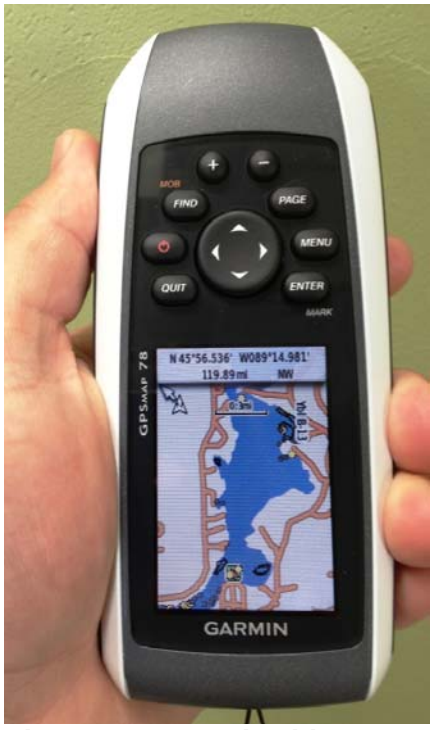


Photo 3. GPS unit with basemap of the ERC's 2013 ESAIS Survey results (zoomed into Yellow Birch Lake).

EWM Peak Biomass Survey

Much like our native plants, EWM reaches its peak growth in late summer (August/September); therefore, this is the best time to assess this species. Armed with data collected through the Early Season AIS Survey and the volunteer's surveys, Onterra ecologists would visit known EWM locations in the Eagle River Chain to refine these areas into polygon or point based colonies/occurrences. This data would be crucial in creation of treatment strategies for the following spring.

Chemical Applications

It would be the responsibility of the ULERCLC to contract with a commercial aquatic pesticide applicator, certified with the Wisconsin Department of Agriculture and Consumer Protection and licensed by the WDNR to perform the *early season* treatments of Eurasian water milfoil. The treatments would occur each year before June 1 and/or water temperatures reach 65°F. Onterra would create the treatment areas in the form of polygons within their Geographic Information System (GIS) and then transmit them to the applicator in native shapefile format or similar format recognized by the applicator's GPS technology. If applicable, the applicators treatment paths would be included in the annual and final reports.

The preliminary results of the 2013 ESAIS surveys are shown on the attached maps. While EWM occurrences were located within a few of the spring 2013 treatment areas, it is not appropriate to draw conclusions on the treatment's efficacy as some of these plants may be in the process of dying. Conversely, not finding EWM within a treatment area during this survey does not necessarily indicate success, as under-treated and injured plants may rebound by the end of the summer.

For budgeting purposes, 2014 and 2015 treatment costs are based upon the actual charges of the 2013 treatment. A set of conditional permit maps will be submitted to the WDNR over the winter months based upon the previous year's late-summer EWM survey results. Additionally, a revised set of maps would be sent to the WDNR, the ULERCLC, and the applicator based on the results of the May pretreatment surveys.

STAKEHOLDER PARTICIPATION

Clean Boats Clean Waters Program

The intent of the boat inspections would not only be to prevent additional invasive species from entering the system through its public access points, but also to prevent the infestation of other waterways with invasive species that originated in the Eagle River Chain of Lakes. The goal would be to cover the landings during the busiest times in order to maximize contact with lake users, spreading the word about the negative impacts of AIS on lakes and educating people about how they are the primary vector of its spread.

Due to the large number of activities that ULERCLC volunteers are called upon during the proposed project (AIS monitoring, stakeholder education, ect.), 400 annual hours of paid watercraft inspectors will be used. Vilas County has agreed to lend assistance to the project as opportunities develop, but particularly with regard to coordinating the student

intern program that will provide 400 hours of paid watercraft inspection services. Cost coverage for the 2014 and 2015 paid watercraft inspectors are excluded from the proposed project, as they will continue to be included within separate WDNR grants obtained by the ULERCLC.

Budget and Grant Meeting

This meeting would be held with the commission planning committee each July during the project with the goal of drafting the following year's budget. These figures would be used for completing the grant budget as well as providing early notification to the commission regarding their municipal budgets.

Project Status/Informational Meeting

This meeting would be held in the fall of each year (October-November) with the intention of delivering the results of that year's treatments and laying out the treatment/monitoring plan for the following year. This meeting would be an important event in raising stakeholder awareness as described in the project goals; therefore, the commission would enhance the advertising of this meeting over its normal protocol regarding meeting announcements. The commission would also strive to have local media attend the meeting in hopes of producing factual articles that will benefit the project and the chain stakeholders.

Volunteer & Professional Hand-removal of Eurasian Water milfoil

As stated above, volunteers would mark with GPS and remove isolated EWM plants observed during their surveys. In 2008-2011, volunteers from Otter Lake participated in hand removal of EWM in the lake. Future sites would be selected based upon its size, depth and isolation from other infested areas. An appropriate site would be separated from chemical treatment areas, be approximately 50 feet by 100, have a soft substrate, and be in less than four feet of water.

Volunteers would scour the area and remove all plants found. The entire plant would be removed and discarded on shore well away from the water's edge. The site would be monitored in the same manner as the chemical treatment sites with the results being used to determine the success and practicality of using hand-removal as a treatment technique on the Eagle Chain of Lakes.

The ULERCLC would like to greatly expand this volunteer-based effort by soliciting a private firm to conduct approximately 200 diver-hours of hand-removal in 2014 and 2015.

Within each year's annual treatment report, a description of that year's surveillance and hand removal activities would be included along with a map of the specific locations. Volunteers conducting surveillance monitoring would input all records into the online SWIMS database in accordance with CLMN protocols. This would include surveys where aquatic invasive species were not identified.

Management Strategy to Protect Existing Native Plant Community in Eagle River Chain of Lakes

Commonly on Wisconsin Lakes, it is an acceptable practice for riparian property owners to manually remove native aquatic plants from swimming and pier areas. This technique is discussed specifically in NR 109 and recommended by many lake and aquatic plant management plans. Many Eagle River Chain of Lakes property owners are also known to remove native plants from their shoreland areas.

A healthy native plant population competes against the initial infestation and subsequent spread of non-native aquatic plant species; therefore, maintaining a healthy native plant community is an important part of controlling species such as Eurasian water milfoil. Removal of native species from the lakebed by riparians negatively impacts the lake's native plant community and as a result, can facilitate the spread of Eurasian water milfoil.

With the objective of reducing the negative impacts described above, the ULERCLC and ERCLA began a program in 2010 promoting the benefits of not removing native vegetation from shoreland areas and allowing these populations to remain strong. This initiative began with a standard letter of intent that has been provided to over 300 riparian owners on the chain via email. The initial form letter described the benefits of promoting native aquatic plant growth within shoreland areas instead of removing them. More recent versions of the letter now further emphasizes native plant protection, including encouraging riparian owners to reduce erosion with native grasses, plants, bushes and trees especially in the 35-foot buffer along the high-water mark. These concepts have also been relayed to many more Eagle River Chain of Lakes stakeholders through individual lake association newsletters, ERCLA newsletters, and through discussions at various association meetings.

The initiative also includes the opportunity for shoreland property owners to sign a pledge form (see Attachment A) indicating that they will not remove native plants from in front of their property and to control erosion in their yard. Since the beginning of the program, over 150 property owners have signed the pledge.

Understand purple loosestrife occurrences along the Lower Eagle River Chain of Lakes shorelines to effectively implement control strategies

This strategy will occur largely under the oversight of the Vilas County Invasive Species Coordinator, Ted Ritter. In 2011, volunteers were trained on how to identify and map purple loosestrife by Ted Ritter. Volunteers will survey a specific portion of their lake in search of the plant during the summer when the plant is in flower and mark all occurrences with GPS. Using a form provided by Ted Ritter, the GPS information will be integrated into a map by Vilas County during the fall/winter. During that time frame, a control strategy would be developed. Riparians would be notified if purple loosestrife is located on their property and provided with educational materials developed in conjunction by Vilas County and the Eagle River Chain of Lakes Association (ERCLA). ERCLA has already implemented portions of this strategy via email marketing and news releases.

In order for this program to get traction, additional volunteerism from the Eagle River Chain of Lakes is needed to couple the efforts of the Vilas County LCD. The ULERCLC or ERCLA needs to be prepared to take over control of this program on the Eagle River Chain from Vilas County in 2015 should Vilas County not continue this program. If deemed appropriate during the management planning process, it may also be appropriate to expand this component to include all wetland invasive plant species, including pale yellow iris.

Volunteer Herbicide Concentration Monitoring

Volunteers from the ULERCLC have been active participants in the WDNR/US Army Corps of Engineers (USACE) herbicide concentration monitoring project. If invited to participate, herbicide samples would be collected surrounding the 2014 & 2015 treatments following protocols developed by the USACE. Members of the ULERCLC would collect samples at various locations within the lake at different time periods following the treatment. Properly preserved samples would be sent to the USACE for laboratory analysis.

PROJECT DELIVERABLES

Annual Reports

During the winter following each growing season, a letter report would be provided to the ULERCLC that would include an assessment of the prior spring's treatment and guidance for the following year's control program. All maps depicting the Early-Season AIS and Peak-Biomass Survey results and recommended treatment areas would be included within the report. Those remedial actions may include further monitoring, manual harvesting (hand removal), herbicide treatments, or a combination of all three. All reports would be presented in electronic format via email.

Stakeholder Participation

Unless specifically indicated otherwise, the ULERCLC would be responsible for providing the necessary deliverables to the WDNR for those components listed within the Stakeholder Participation Section (Volunteer Efforts Subcategory on cost breakdown table). The deliverables for these activities may include entering the appropriate information within the WDNR's Surface Water Integrated Monitoring System (SWIMS) or providing a brief narrative of the activities to the WDNR.

PROJECT COST ESTIMATE

The cost breakdown table below summarizes the project costs from the four separate cost breakdown tables. Please note that within the associated cost breakdown tables, "T" preceding a year indicates that the task is associated with that year's treatment.

Eagle River Chain of Lakes AIS Project - Phase VI: ***2014-2015***		
	Cash Costs	**Donated Value**
Consulting Services Subtotal	***$61,140.00***	***$0.00***
Herbicide Application & Related Fees Subtotal	***$131,838.31***	***$0.00***
Paid Hand-harvesting Efforts Subtotal	***$11,000.00***	***$0.00***
Volunteer Efforts Subtotal	***$10,324.00***	***$44,796.00***
Project Subtotals	***$214,302.31***	***$44,796.00***
Total Project	**$259,098.31**	
State Share Requested (50%)	**$129,549.16**	

Consulting Services Cost Breakdown Table

	Cash Costs	**Donated Value**
Consulting Services		
2014		
Early-Season AIS Surveys	$9,800.00	
Volunteer GPS Updates	$310.00	
Eurasian Water Milfoil Peak-Biomass Surveys	$9,330.00	
Eurasian Water Milfoil Control Strategy Development	$1,765.00	
Spring Pretreatment Confirmation and Refinement Surveys	$6,750.00	
Annual Fall Information Meeting	$1,070.00	
Project Administration, Communication, & Printing	$1,050.00	
Paid Hand-harvesting Coordination & Integration	$495.00	
2014 Consulting Services Subtotal	*$30,570.00*	
2015		
Early-Season AIS Surveys	$9,800.00	
Volunteer GPS Updates	$310.00	
Eurasian Water Milfoil Peak-Biomass Surveys	$9,330.00	
Eurasian Water Milfoil Control Strategy Development	$1,765.00	
Spring Pretreatment Confirmation and Refinement Surveys	$6,750.00	
Annual Fall Information Meeting	$1,070.00	
Project Administration, Communication, & Printing	$1,050.00	
Paid Hand-harvesting Coordination & Integration	$495.00	
2015 Consulting Services Subtotal	*$30,570.00*	
Consulting Services Subtotal	***$61,140.00***	***$0.00***

Herbicide Application & Related Fees Cost Breakdown Table

	Cash Costs	Donated Value
Herbicide Application & Related Fees		
Catfish Lake		
T2014 Costs (4.5 Acre Treatment)	$7,833.87	
T2014 WDNR Permit Fees	$145.00	
T2015 Costs (4.5 Acre Treatment)	$8,617.26	
T2015 WDNR Permit Fees	$145.00	
Catfish Lake Subtotal	*$16,741.13*	
Cranberry Lake		
T2014 Costs (34.3 Acre Treatment)	$10,445.82	
T2014 WDNR Permit Fees	$895.00	
T2015 Costs (34.3 Acre Treatment)	$11,490.40	
T2015 WDNR Permit Fees	$895.00	
Cranberry Lake Subtotal	*$23,726.22*	
Duck Lake		
T2014 Costs (3 Acre Treatment)	$2,640.00	
T2014 WDNR Permit Fees	$95.00	
T2015 Costs (3 Acre Treatment)	$2,904.00	
T2015 WDNR Permit Fees	$95.00	
Duck Lake Subtotal	*$5,734.00*	
Eagle Lake		
T2014 Costs (3 Acre Treatment)	$2,640.00	
T2014 WDNR Permit Fees	$95.00	
T2015 Costs (3 Acre Treatment)	$2,904.00	
T2015 WDNR Permit Fees	$95.00	
Eagle Lake Subtotal	*$5,734.00*	
Lynx Lake		
T2014 Costs (3 Acre Treatment)	$2,640.00	
T2014 WDNR Permit Fees	$95.00	
T2015 Costs (3 Acre Treatment)	$2,904.00	
T2015 WDNR Permit Fees	$95.00	
Lynx Lake Subtotal	*$5,734.00*	
Otter Lake		
T2014 Costs (3 Acre Treatment)	$2,640.00	
T2014 WDNR Permit Fees	$95.00	
T2015 Costs (3 Acre Treatment)	$2,904.00	
T2015 WDNR Permit Fees	$95.00	
Otter Lake Subtotal	*$5,734.00*	
Scattering Rice Lake		
T2014 Costs (3 Acre Treatment)	$2,640.00	
T2014 WDNR Permit Fees	$95.00	
T2015 Costs (3 Acre Treatment)	$2,904.00	
T2015 WDNR Permit Fees	$95.00	
Scattering Rice Lake Subtotal	*$5,734.00*	
Voyageur Lake		
T2014 Costs (3 Acre Treatment)	$2,640.00	
T2014 WDNR Permit Fees	$95.00	
T2015 Costs (3 Acre Treatment)	$2,904.00	
T2015 WDNR Permit Fees	$95.00	
Voyageur Lake Subtotal	*$5,734.00*	
Watersmeet Lake		
T2014 Costs (62 Acre Treatment)	$17,191.35	
T2014 WDNR Permit Fees	$1,270.00	
T2015 Costs (62 Acre Treatment)	$18,910.49	
T2015 WDNR Permit Fees	$1,270.00	
Watersmeet Lake Subtotal	*$38,641.84*	
Yellow Birch Lake		
T2014 Costs (11.9 Acre Treatment)	$8,421.49	
T2014 WDNR Permit Fees	$320.00	
T2015 Costs (11.9 Acre Treatment)	$9,263.64	
T2015 WDNR Permit Fees	$320.00	
Yellow Birch Lake Subtotal	*$18,325.13*	
Herbicide Application & Related Fees Subtotal	***$131,838.31***	*$0.00*

Paid Hand-Harvesting Efforts Cost Breakdown Table

	Cash Costs	Donated Value
Paid Hand-harvesting Efforts		
2014 Paid Hand-removal Implementation	$5,500.00	
2015 Paid Hand-removal Implementation	$5,500.00	
Paid Hand-harvesting Efforts Subtotal	***$11,000.00***	***$0.00***

Volunteer Efforts Cost Breakdown Table

	Cash Costs	Donated Value
Volunteer Efforts		
ULERCLC meetings (150 volunteer hrs x 2yrs)		$3,600.00
Lake group meetings (400 volunteer hrs x 2yrs)		$9,600.00
Newletters (80 volunteer hrs x 2yrs)		$1,920.00
Newsletters (printing & postage costs x 2yrs)	$8,220.00	
Peak-Biomass Surveys (336 volunteer hrs x 2yrs)		$8,064.00
Hand Harvesting (14 volunteer hrs x 2yrs)		$336.00
Volunteer coordinator (85 volunteer hrs x 2yrs)		$2,040.00
Grant reimbursement (65 volunteer hrs x 2yrs)		$1,560.00
Clean Boats/Clean Waters (20 volunteer hrs x 2yrs)		$480.00
Clean Boats/Clean Waters (Paid Inspectors)	*Within separate grants*	
News Releases (25 volunteer hrs x 2yrs)		$600.00
Treatment Posting in Newspaper (4 volunteer hrs x 2yrs)		$96.00
Treatment Posting in Newspaper (submission costs x 2yrs)	$100.00	
Purple Loosestrife Control (16 volunteer hrs x 2yrs)		$384.00
Purple Loosestrife Control (printing & postage for riparian notification x 2yrs)	$182.00	
Additional Time/Materials (100 volunteer hrs x 2yrs)		$2,400.00
ERCLA Meetings (330 volunteer hrs x 2yrs)		$7,920.00
ERCLA Meetings (printing & postage costs x 2yrs)	$480.00	
Email Marketing (30 volunteer hrs x 2yrs)		$720.00
Email Marketing (Constant Contact annual fee x 2yrs)	$612.00	
Website maintenance (30 volunteer hrs x 2yrs)		$720.00
Website maintenance (domain fees x 2yrs)	$150.00	
Pink Bucket Program (20 volunteer hrs x 2yrs)		$480.00
Pink Bucket Program (Replacement buckets/bins x 2yrs)	$220.00	
Treatment Notification letters (17 volunteer hrs x 2yrs)		$408.00
Treatment Notification letters (printing & postage costs x 2yrs)	$360.00	
WDNR Research Meeting (16.5 volunteer hrs x 2yrs)		$396.00
Chemical Concentration Monitoring (128 volunteer hrs x 2yrs)		$3,072.00
Volunteer Efforts Subtotal	***$10,324.00***	***$44,796.00***

State of Wisconsin
Department of Natural Resources

Aquatic Invasive Species (AIS) Control Grant Application

Form 8700-307 (12/11)

Notice: Use of this form is required by the DNR for any application filed pursuant to ch. NR 198, Wis. Adm. Code. Personal information collected on this form, including such data as your name, address, phone number, etc., will be used for management and enforcement of DNR programs, and is not intended to be used for any other purpose. Information will be made accessible to requesters under Wisconsin's Open Records laws (s. 19.32-19.39, Wis. Stats.) and requirements.

Section I: Application Type

Check one:

☐ Education, Prevention & Planning ☐ Early Detection & Response ☒ Established Population Control

Legislative District Numbers	
Senate	Assembly
12	34

To determine your legislative district, go to http://165.189.139.210/WAML// Type in complete address, next screen shows information

Section II: Applicant Information

Applicant: Unified Lower Eagle River Chain of Lakes Commission

Waterbody Name: See Table 1 in Project Scope

Project County/Township/Section/Range: Vilas T40N, R09,10,11E, Sections 15,21,23,25,28,31, & 36

Type of Eligible Lake or River Applicants

☐ County ☐ Tribe ☒ Other Gov't Unit ☐ Federal
☐ City ☐ Sanitary Dist. ☐ Nonprofit Org. ☐ State
☐ Village ☐ Dist. ☐ College, School, etc. ☐ Other _____
☐ Town ☐ Assoc.

Authorized Representative Named by Resolution	Project Contact Name
James Spring	Tim Hoyman
Authorized Representative Title: Town of Washington Chairperson	Project Contact Title: Aquatic Ecologist; Onterra, LLC
Address: 4377 Chain O'Lakes Road	Address: 815 Prosper Road
City: Eagle River; State: WI; ZIP Code: 54521	City: De Pere; State: WI; ZIP Code: 54115
Daytime Phone (area code): (715-891-1095); Evening Phone (area code): (715-891-1095)	Daytime Phone (area code): 920.338.8860; Evening Phone (area code):
E-Mail Address:	E-Mail Address: thoyman@onterra-eco.com

Mail Check to: (if different from applicant)

Name and Title	Address
Dave Alleman	330 Court Street
Organization: ULERCLC	City: Eagle River; State: WI; ZIP Code: 54521

For DNR Use Only

Application Type	Date Received	Date Reviewed (AIS/LC/RC)	AIS/Lake/River Coordinator Approval/Date
Waterbody ID #	Adequate Public Access ☐ Yes ☐ No	Environmental Grants Specialist Approval / Date	
Eligible Project ☐ Yes ☐ No	Eligible Applicant ☐ Yes ☐ No	Project Priority Rank	Research / Demo Project ☐ Yes ☐ No
Prior Grant Award(s) ☐ Yes ☐ No	Fiscal Year(s)	Amount Received to Date $	Project Awarded ☐ Yes ☐ No

Aquatic Invasive Species (AIS) Control Grant Application

Section III: Project Information

Project Title	Proposed Ending Date
Eagle River Chain of Lakes AIS Project – Phase VI (2014-2015)	December 31, 2017

Other Management Units	Letter of Support	Other Management Units	Letter of Support
1. Vilas County LWCD	☒	7. Cranberry Lake Association	☒
2. Eagle River Chain of Lakes Association	☒	8. Eagle Lake Preservation Association	☒
3. Catfish Lake Association	☒	9. Watersmeet Lake & Rivers Association	☒
4. Yellow Birch Conservation Union	☒	10. Voyageur Lake Association	☒
5. Duck Lake Conservancy	☒	11. Otter-Lynx Lake Association	☒
6. Scattering Rice Lake Association	☒	12.	☐

Section IV: Public Access

Number of Public Vehicle Trailer Parking Spaces Available at Public Access Sites: 110

Number of Public Access Sites Including Boat Launches and Walk-ins: 14 boat landings, 5 walk-in sites

Section V: Cost Estimate and Grant Request

Section V must be completed or application will be returned. Details in support of Section V are welcome.	**Project Costs** Column 1 Cash Costs	Column 2 Donated Value	*DNR Use Only*
1. Salaries, wages and employee benefits (Paid Hand-harvesting)	$11,000.00		
2. Consulting services (Onterra)	$61,140.00		
3. Purchased services: (Herbicide Application Costs)	$125,438.31		
4. Other purchased services (specify) : (WDNR Permit Fees)	$6,400.00		
5. Plant material			
6. Supplies (specify): (Printing, Postage, & Misc Fees – by Commission)	$10,324.00		
7. Depreciation on equipment			
8. Hourly equipment use charges			
9. State Lab of Hygiene (SLOH) Costs			
10. Non-SLOH Lab Costs			
11. Other (specify): (Volunteer In-kind Labor)		$44,796.00	
12. **Subtotals** (Sum each column)	*$214,302.31*	*$44,796.00*	
13. **Total Project Cost Estimate** (sum of **column 1** plus sum of **column 2)**	**$259,098.31**		
14. **State Share Requested (up to 75% of total costs may be requested)**	**$129,549.16**		

Subject to the following maximum grant amounts:

- Education, Prevention and Planning Projects—up to $150,000
- Early Detection and Response Projects—up to $20,000
- Established Infestation Control Projects—up to $200,000

Use of Federal funding as match: (check box below if applicable)

☐ We are using or planning to apply for Federal funds to be used as match.
If known, indicate source of funding:

Aquatic Invasive Species (AIS) Control Grant Application

Section VI: Attachments (check all that are included)

A. For all applicants: *(Refer to instructions for applicability.)*

- ☒ 1. Authorizing resolution
- ☒ 2. Letters of support
- ☒ 3. Map of project location and boundaries
- ☒ 4. Lake map with public access sites identified (per Section VI of this application and page 20 of the guidelines)
- ☒ 5. Itemized breakdown of expenses
- ☐ 6. For projects that entail sending samples to the State Laboratory of Hygiene (SLOH) only: a completed SLOH Projected Cost Form
- ☒ 7. Project scope/description:
  - ☒ a. Description of project area
  - ☒ b. Description of problem to be addressed by project
  - ☒ c. Discussion of project goal and objectives
  - ☒ d. Description of methods and activities
  - ☒ e. Description of project products or deliverables
  - ☒ f. Description of data to be collected, if applicable
  - ☒ g. Description of existing and proposed partnerships
  - ☒ h. Discussion of role of project in planning and/or management of lake
  - ☒ i. Timetable for implementation of key activities
  - ☒ j. Plan for sharing project results
  - ☒ k. Other information in support of project no described above

B. For applicants that are Lake Management Organizations (LMOs), River Management Organizations (RMOs) or Qualified Non-profit Organizations:

- ☐ 1. For first time applicant LMOs/RMOs only: A completed Form 8700-226 (Lake Association Organizational Application) or 8700-287 (River Management Organization Application)
- ☐ 2. For first time applicant Qualified Nonprofit Organizations only: Copy of IRS 501(c)(3) determination letter and copies of your Articles of Incorporation and Bylaws
- ☐ 3. List of national and/or statewide organizations with which you are affiliated
- ☐ 4. List of board members' names, including municipality and county of residence. Designate officers
- ☐ 5. Documentation of current financial status
- ☐ 6. Brochures, newsletters, annual reports or other information about your organization

C. Education, Prevention and Planning Projects: *(No additional attachments required.)*

D. Early Detection and Response Projects:

- ☐ 1. APM Permit

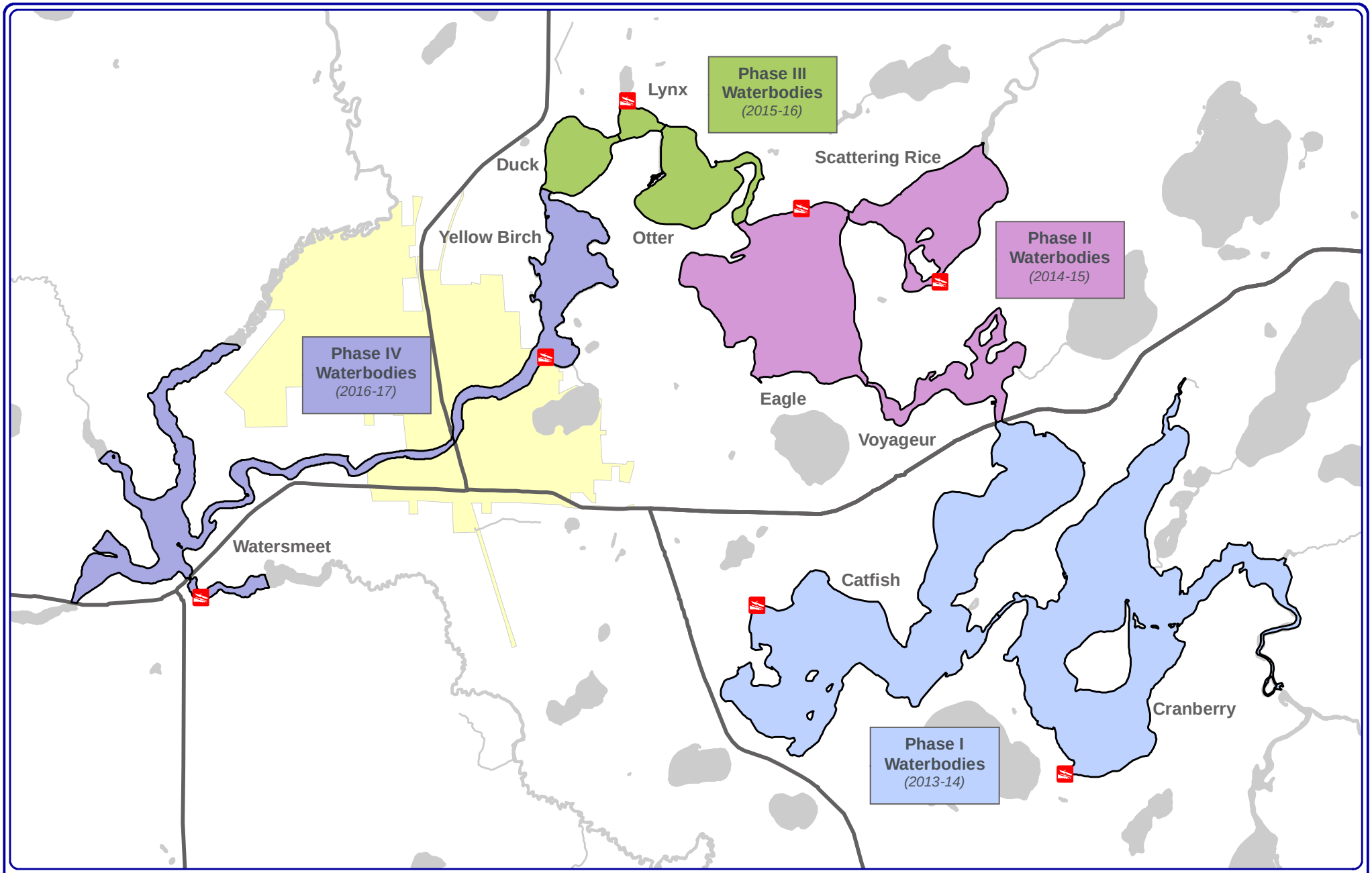
E. Established Infestation Control Projects:

- ☒ 1. Management Plan
- ☐ 2. APM Permit

Section VII: Certification

I certify that information on this application and all its attachments are true and correct and in conformity with applicable Wis. Statutes

Print/Type Name of Authorized Representative	Title of Authorized Representative
James Spring	Town of Washington Chairperson
Signature of Authorized Representative	Date Signed



4,400
Feet

Onterra LLC
Lake Management Planning
815 Prosper
De Pere, WI 54115
920.338.8860
www.onterra-eco.com

Sources:
Data: Roads and Hydro: WDNR
Map Date: October 16, 2012
Filename: *ERC_LocationPhasing.mxd*

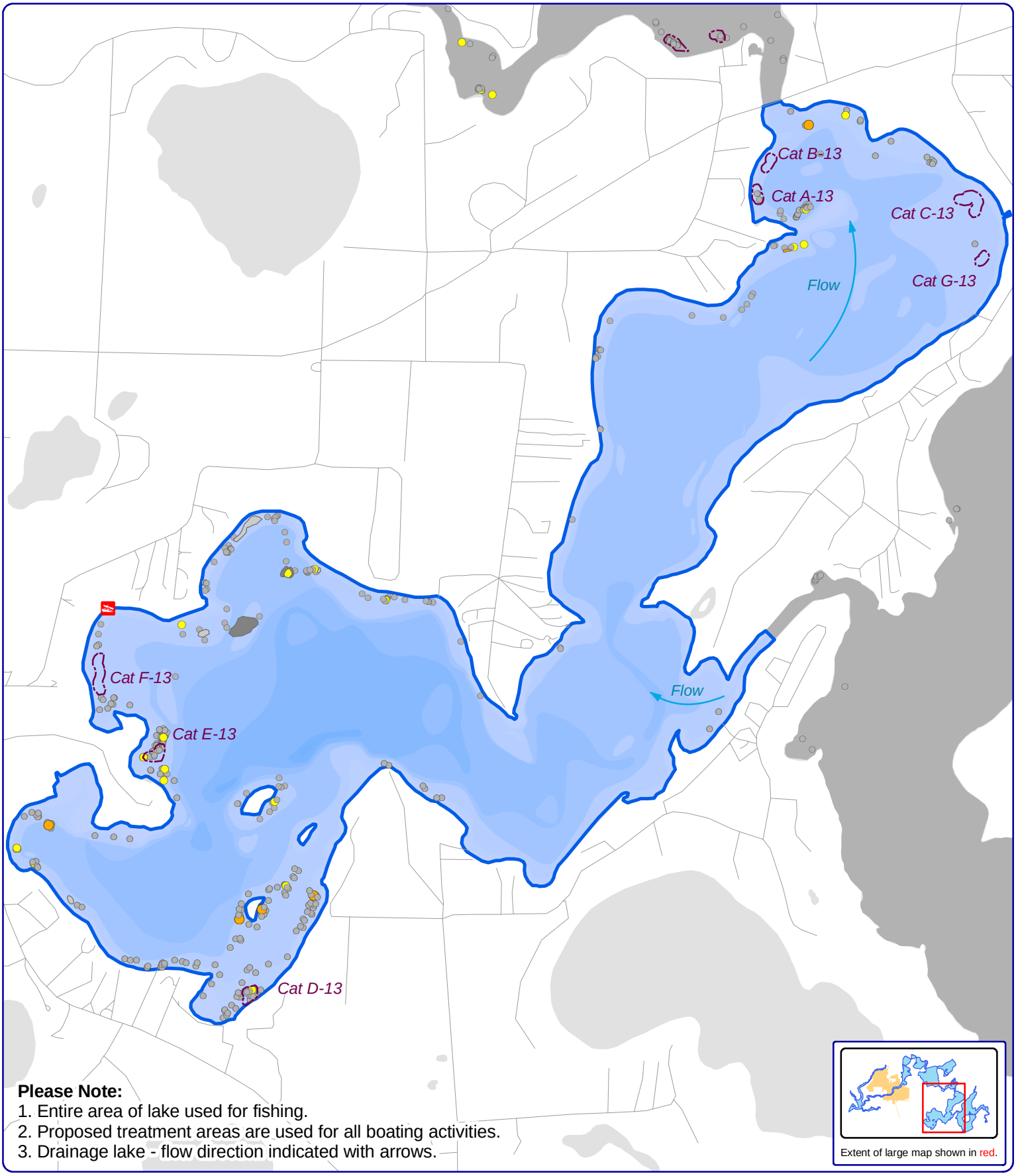

Project Location in Wisconsin

Legend

Public Access

Map 1
Lower Eagle River Chain of Lakes
Vilas County, Wisconsin

Proposed Phased Management Planning Approach



N
W E
S

1,600
Feet

Onterra LLC
Lake Management Planning
815 Prosper Road
De Pere, WI 54115
920.338.8860
www.onterra-eco.com

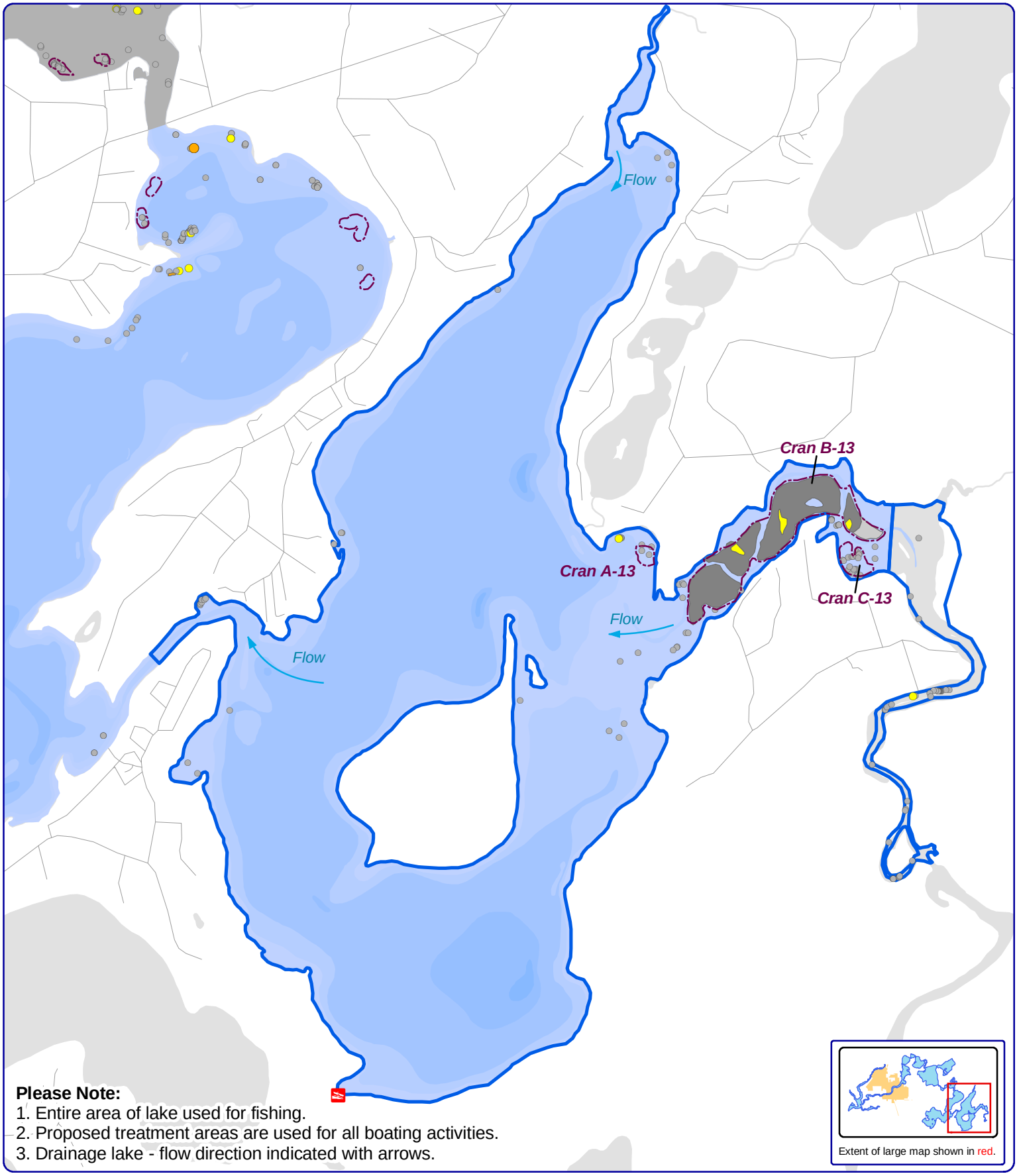
Sources:
Roads and Hydro: WDNR
Aquatic Plants: Onterra, 2012-2013
Map Date: July 15, 2013
Filename: *Cat_EWM_ESAIS_2013.mxd*

2013 ESAIS Survey (July 2013)

- Highly Scattered
- Scattered
- Dominant
- Highly Dominant
- Surface Matting
- Single or Few Plants
- Clumps of Plants
- Small Plant Colony
- 2013 Final Treatment Area

Catfish Lake
Vilas County, Wisconsin

2013 ESAIS
Survey Results: EWM



Please Note:
1. Entire area of lake used for fishing.
2. Proposed treatment areas are used for all boating activities.
3. Drainage lake - flow direction indicated with arrows.

N
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S

1,600
Feet

2013 ESAIS Survey (July 2013)

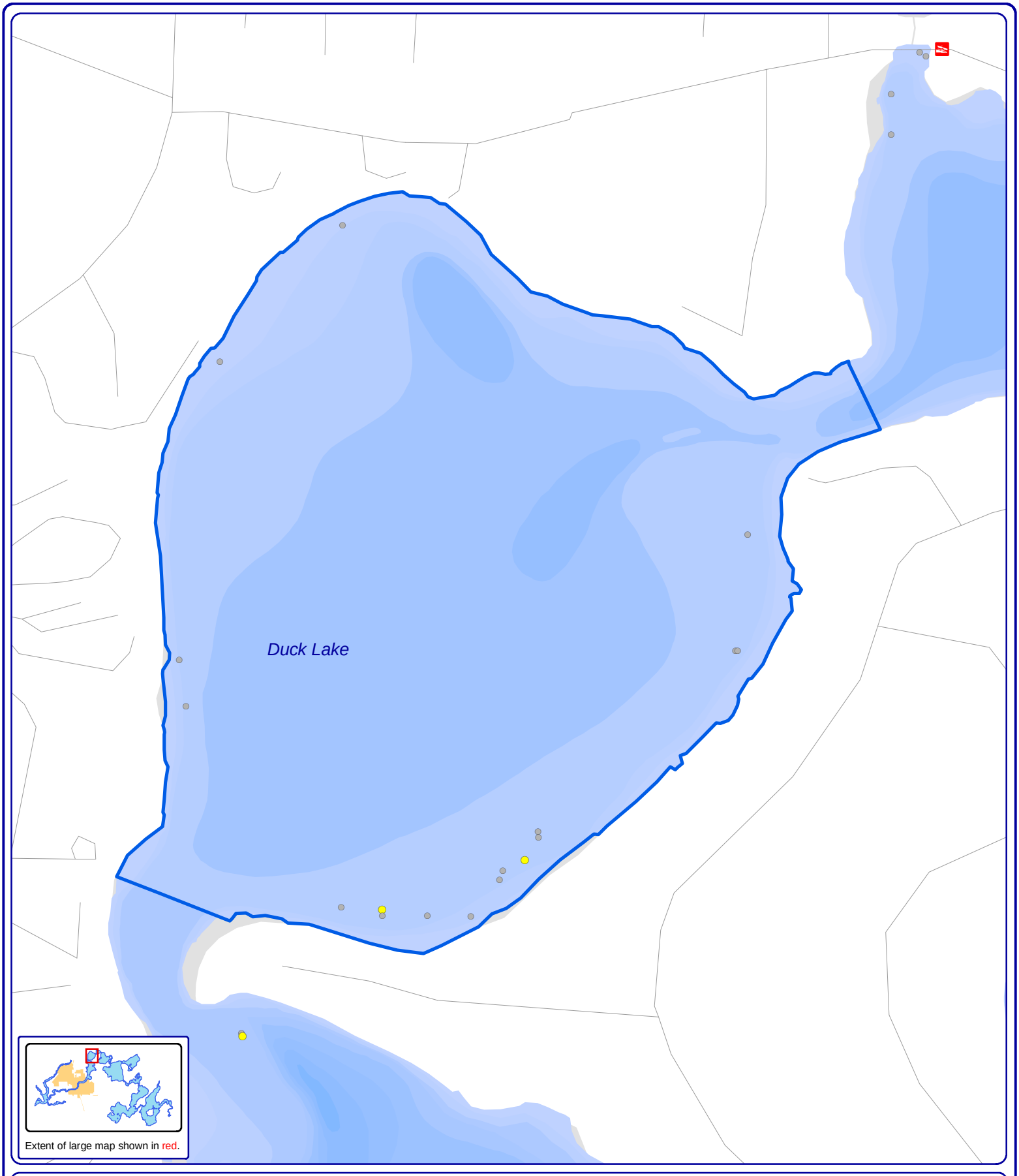
- Highly Scattered
- Scattered
- Dominant
- Highly Dominant
- Surface Matting
- Single or Few Plants
- Clumps of Plants
- Small Plant Colony
- 2013 Final Treatment Area

Onterra LLC
Lake Management Planning
815 Prosper Road
De Pere, WI 54115
920.338.8860
www.onterra-eco.com

Sources:
Roads and Hydro: WDNR
Aquatic Plants: Onterra, 2012-2013
Map Date: July 15, 2013
Filename: *Cran_EWM_ESAIS_2013.mxd*

Cranberry Lake
Vilas County, Wisconsin

2013 ESAIS Survey Results: EWM



Extent of large map shown in red.

N
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450
Feet

2013 ESAIS Survey (July 2013)

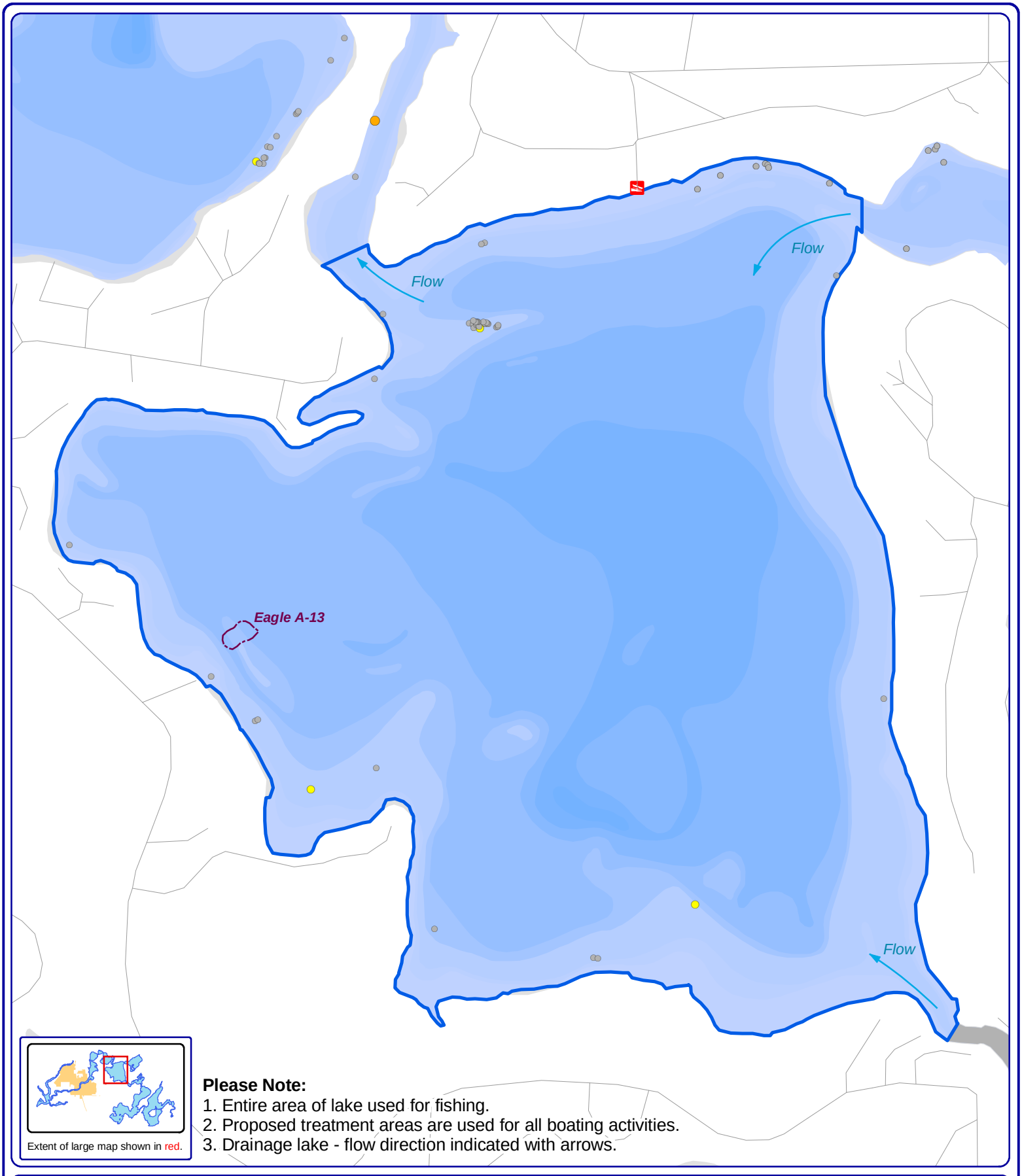
- Highly Scattered
- Scattered
- Dominant
- Highly Dominant
- Surface Matting
- Single or Few Plants
- Clumps of Plants
- Small Plant Colony
- 2013 Final Treatment Area

Duck Lake
Vilas County, Wisconsin

2013 ESAIS Survey Results: EWM

Onterra LLC
Lake Management Planning
815 Prosper Road
De Pere, WI 54115
920.338.8860
www.onterra-eco.com

Sources:
Roads and Hydro: WDNR
Aquatic Plants: Onterra, 2012-2013
Map Date: July 15, 2013
Filename: *Duck_EWM_ESAIS_2013.mxd*



Extent of large map shown in red.

Please Note:
1. Entire area of lake used for fishing.
2. Proposed treatment areas are used for all boating activities.
3. Drainage lake - flow direction indicated with arrows.

N
W E
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900
Feet

2013 ESAIS Survey (July 2013)

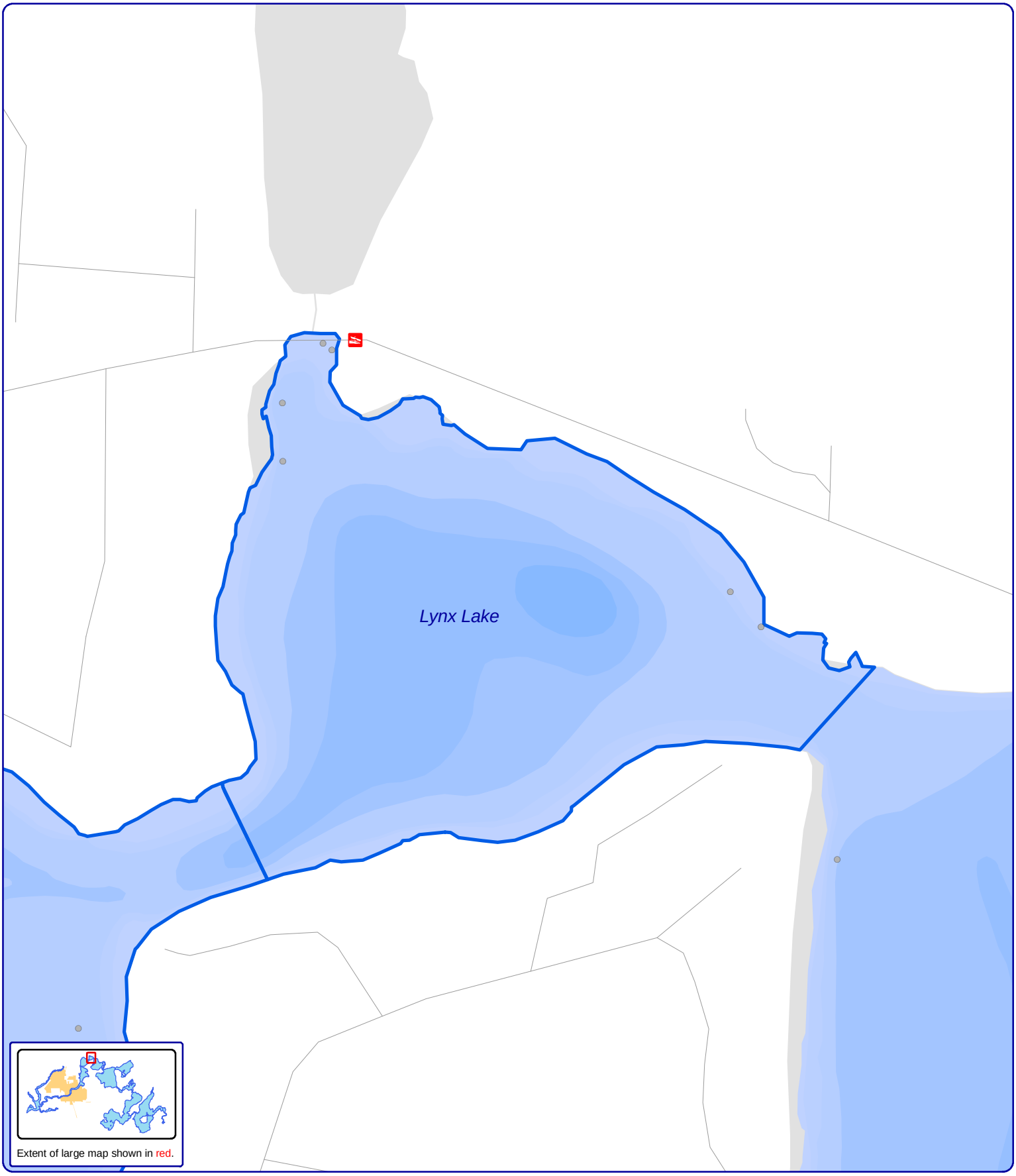
- Highly Scattered
- Scattered
- Dominant
- Highly Dominant
- Surface Matting
- Single or Few Plants
- Clumps of Plants
- Small Plant Colony
- 2013 Final Treatment Area

Onterra LLC
Lake Management Planning
815 Prosper Road
De Pere, WI 54115
920.338.8860
www.onterra-eco.com

Sources:
Roads and Hydro: WDNR
Aquatic Plants: Onterra, 2012-2013
Map Date: July 15, 2013
Filename: *Eagle_EWM_ESAIS_2013.mxd*

Eagle Lake
Vilas County, Wisconsin

2013 ESAIS
Survey Results: EWM



Extent of large map shown in red.

N
W E
S

325
Feet

Onterra LLC
Lake Management Planning
815 Prosper Road
De Pere, WI 54115
920.338.8860
www.onterra-eco.com

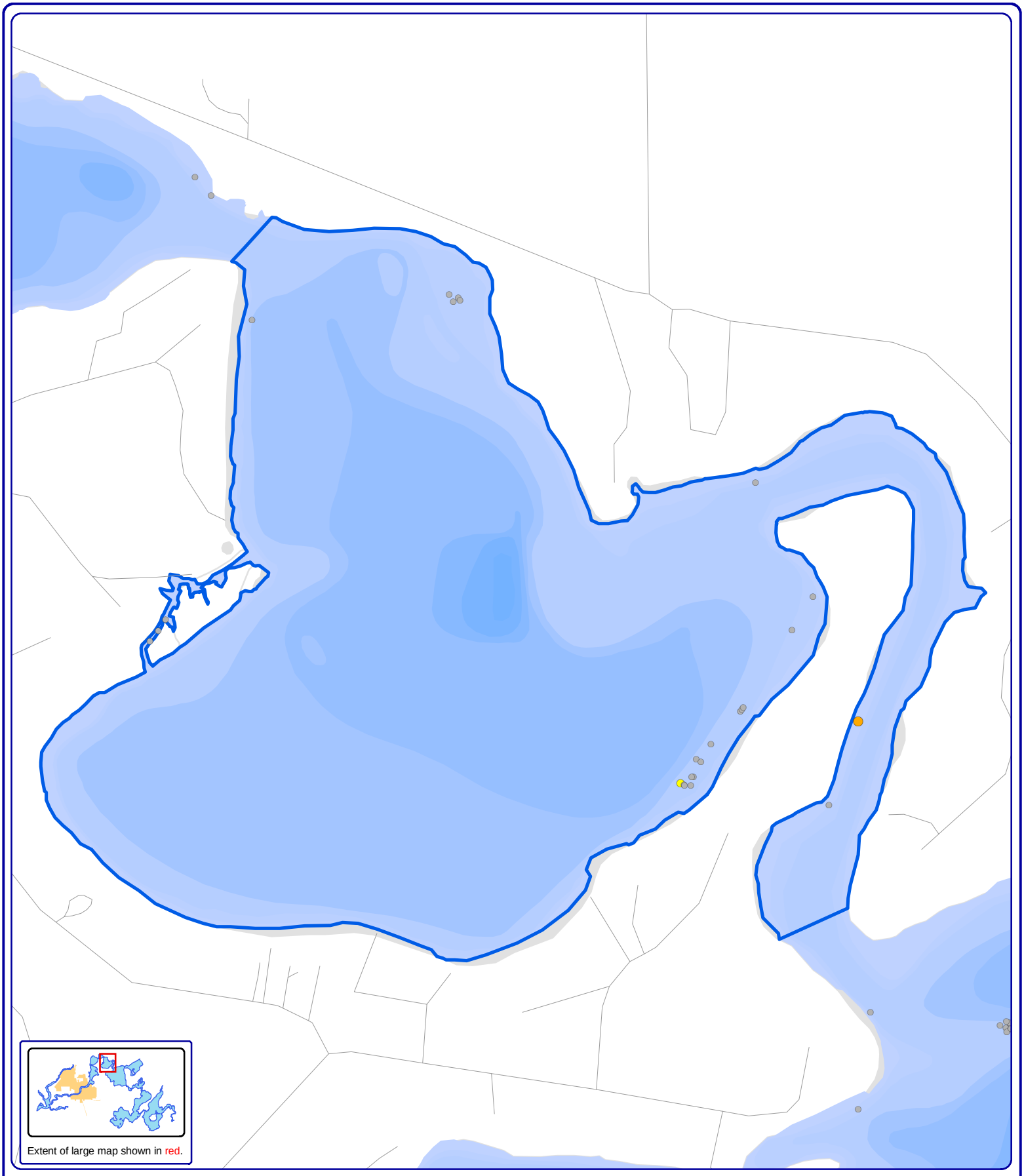
Sources:
Roads and Hydro: WDNR
Aquatic Plants: Onterra, 2012-2013
Map Date: July 15, 2013
Filename: *Lynx_EWM_ESAIS_2013.mxd*

2013 ESAIS Survey (July 2013)

- Highly Scattered
- Scattered
- Dominant
- Highly Dominant
- Surface Matting
- Single or Few Plants
- Clumps of Plants
- Small Plant Colony
- 2013 Final Treatment Area

Lynx Lake
Vilas County, Wisconsin

2013 ESAIS Survey Results: EWM



N
W E
S

600
Feet

2013 ESAIS Survey (July 2013)

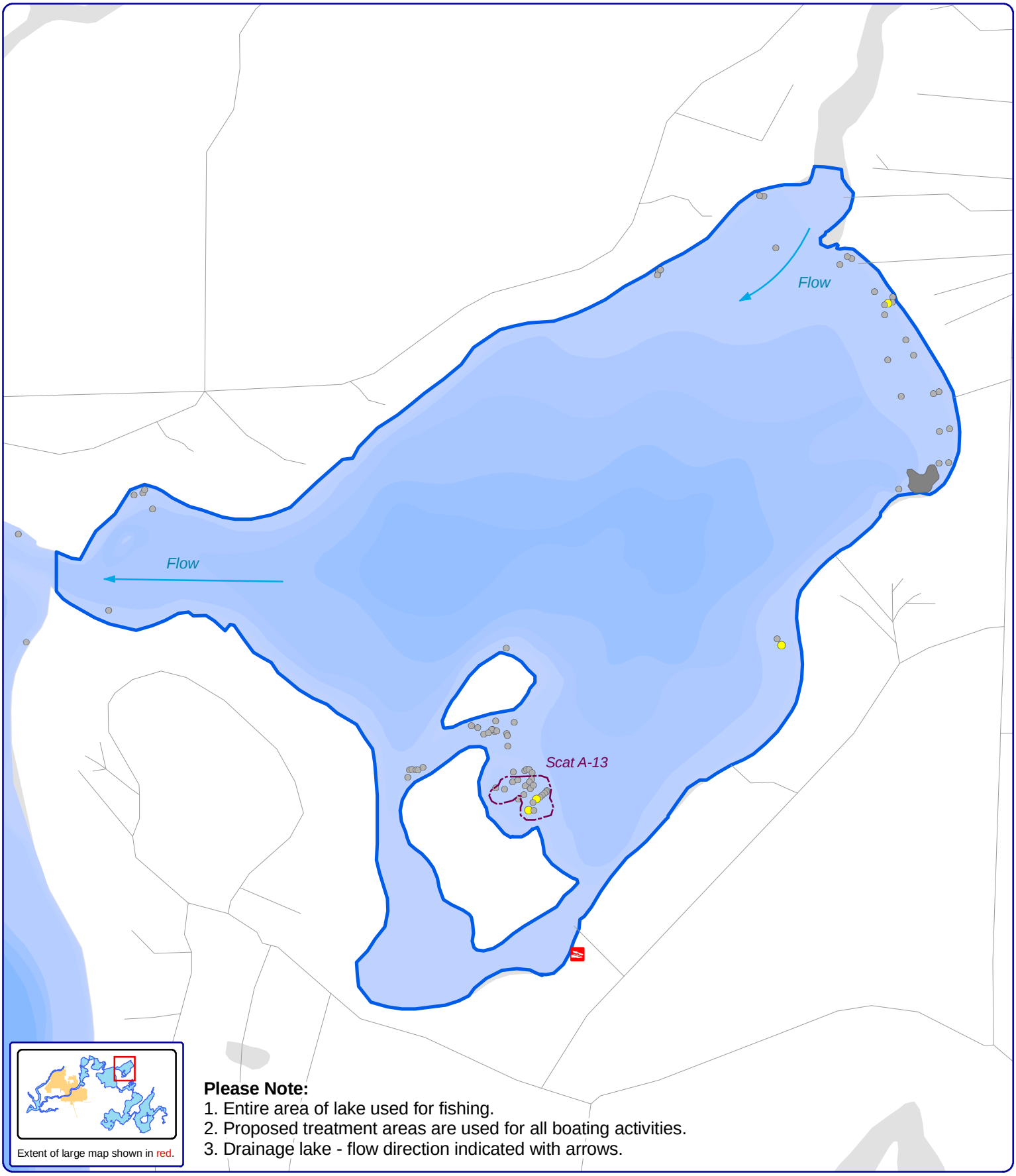
- Highly Scattered
- Scattered
- Dominant
- Highly Dominant
- Surface Matting
- Single or Few Plants
- Clumps of Plants
- Small Plant Colony
- 2013 Final Treatment Area

Otter Lake
Vilas County, Wisconsin

2013 ESAIS
Survey Results: EWM

Onterra LLC
Lake Management Planning
815 Prosper Road
De Pere, WI 54115
920.338.8860
www.onterra-eco.com

Sources:
Roads and Hydro: WDNR
Aquatic Plants: Onterra, 2012-2013
Map Date: July 15, 2013
Filename: *Otter_EWM_ESAIS_2013.mxd*



Extent of large map shown in red.

Please Note:
1. Entire area of lake used for fishing.
2. Proposed treatment areas are used for all boating activities.
3. Drainage lake - flow direction indicated with arrows.

N
W E
S

775
Feet

Onterra LLC
Lake Management Planning
815 Prosper Road
De Pere, WI 54115
920.338.8860
www.onterra-eco.com

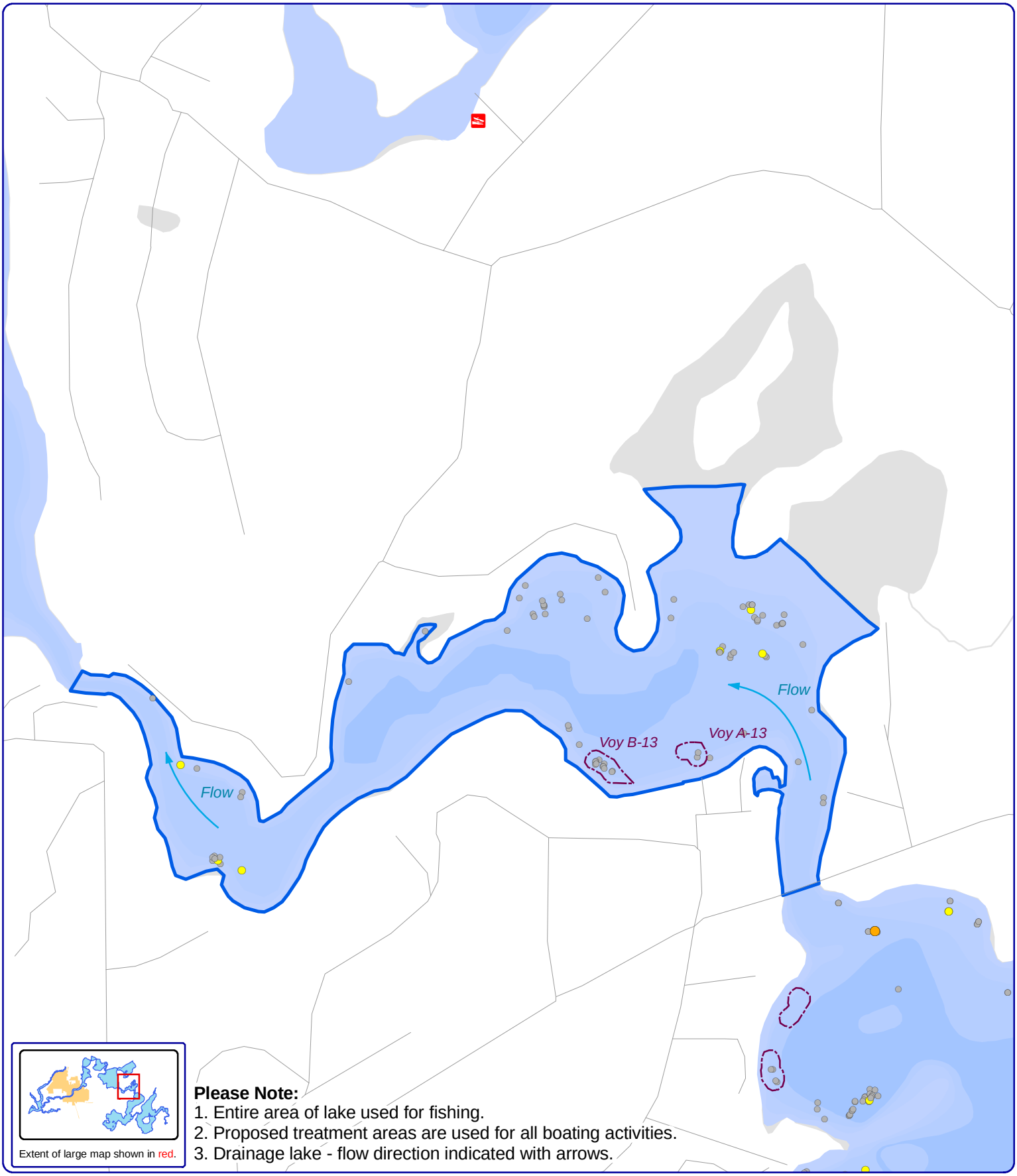
Sources:
Roads and Hydro: WDNR
Aquatic Plants: Onterra, 2012-2013
Map Date: July 15, 2013
Filename: *Scat_EWM_ESAIS_2013.mxd*

2013 ESAIS Survey (July 2013)

- Highly Scattered
- Scattered
- Dominant
- Highly Dominant
- Surface Matting
- Single or Few Plants
- Clumps of Plants
- Small Plant Colony
- 2013 Final Treatment Area

Scattering Rice Lake
Vilas County, Wisconsin

2013 ESAIS
Survey Results: EWM



Extent of large map shown in red.

Please Note:
1. Entire area of lake used for fishing.
2. Proposed treatment areas are used for all boating activities.
3. Drainage lake - flow direction indicated with arrows.

N
W E
S

800
Feet

2013 ESAIS Survey (July 2013)

- Highly Scattered
- Scattered
- Dominant
- Highly Dominant
- Surface Matting
- Single or Few Plants
- Clumps of Plants
- Small Plant Colony
- 2013 Final Treatment Area

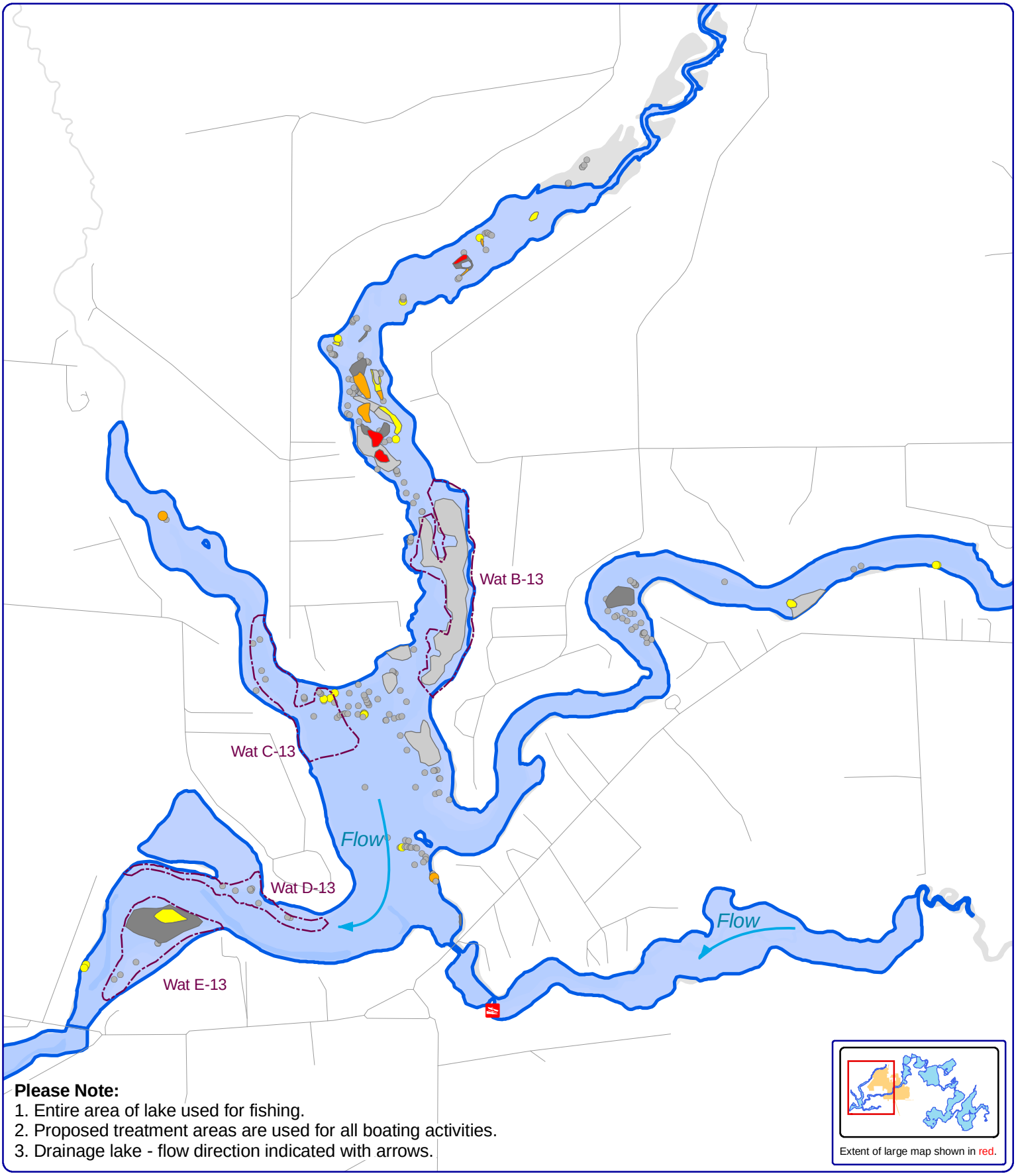
Voyageur Lake

Vilas County, Wisconsin

2013 ESAIS Survey Results: EWM

Onterra LLC
Lake Management Planning
815 Prosper Road
De Pere, WI 54115
920.338.8860
www.onterra-eco.com

Sources:
Roads and Hydro: WDNR
Aquatic Plants: Onterra, 2012-2013
Map Date: July 15, 2013
Filename: *Voy_EWM_ESAIS_2013.mxd*



Please Note:
1. Entire area of lake used for fishing.
2. Proposed treatment areas are used for all boating activities.
3. Drainage lake - flow direction indicated with arrows.

N
W E
S

1,350
Feet

2013 ESAIS Survey (July 2013)

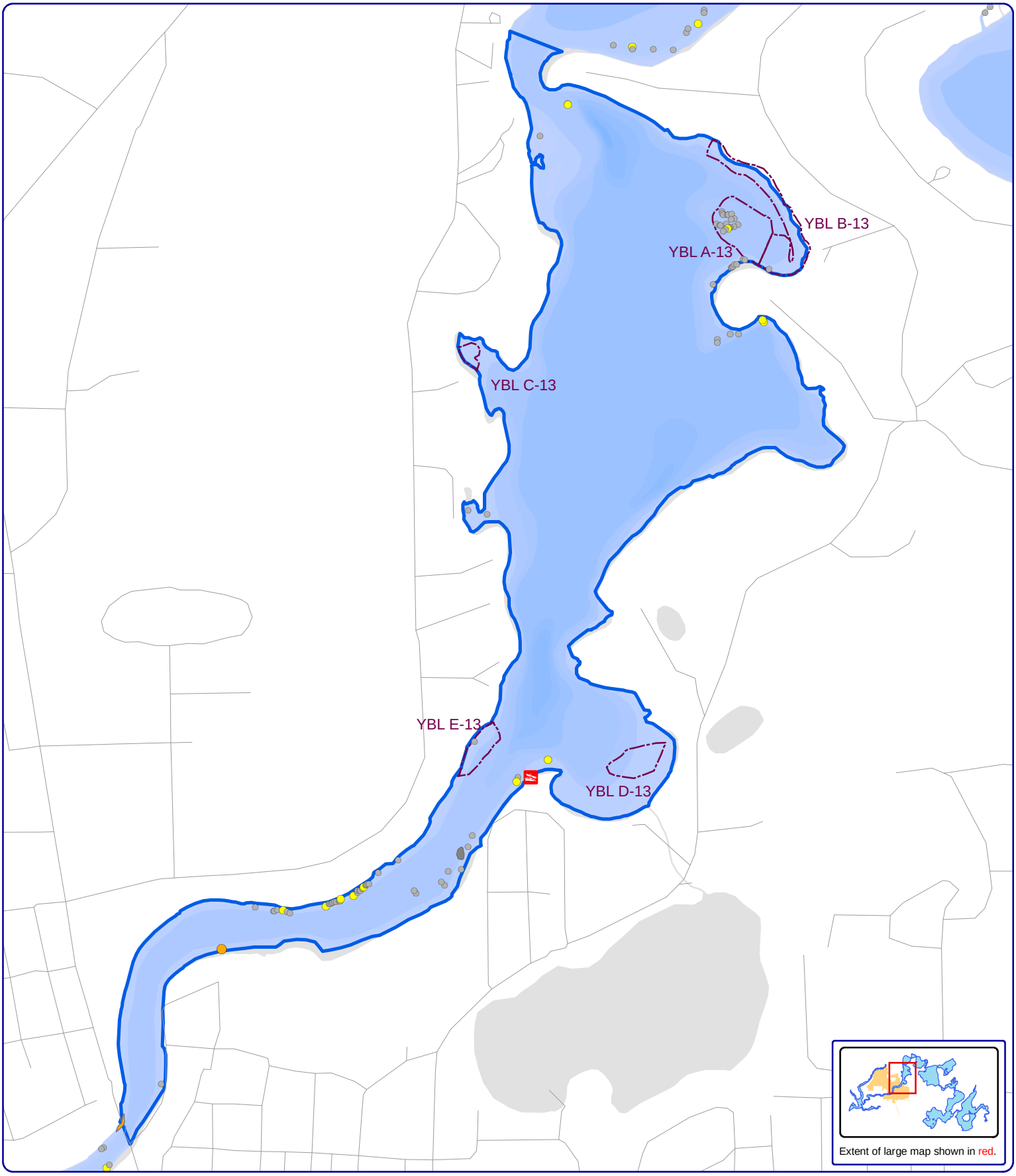
- Highly Scattered
- Scattered
- Dominant
- Highly Dominant
- Surface Matting
- Single or Few Plants
- Clumps of Plants
- Small Plant Colony
- 2013 Final Treatment Area

Onterra LLC
Lake Management Planning
815 Prosper Road
De Pere, WI 54115
920.338.8860
www.onterra-eco.com

Sources:
Roads and Hydro: WDNR
Aquatic Plants: Onterra, 2012-2013
Map Date: July 215, 2013
Filename: *Wat_EWM_ESAIS_2013.mxd*

Watersmeet Lake
Vilas County, Wisconsin

2013 ESAIS
Survey Results: EWM



N
W E
S

1,000
Feet

2013 ESAIS Survey (July 2013)

- Highly Scattered
- Scattered
- Dominant
- Highly Dominant
- Surface Matting
- Single or Few Plants
- Clumps of Plants
- Small Plant Colony
- 2013 Final Treatment Area

Yellow Birch Lake

Vilas County, Wisconsin

2013 ESAIS Survey Results: EWM

Onterra LLC
Lake Management Planning
815 Prosper Road
De Pere, WI 54115
920.338.8860
www.onterra-eco.com

Sources:
Roads and Hydro: WDNR
Aquatic Plants: Onterra, 2012-2013
Map Date: July 15, 2013
Filename: *YBL_EWM_ESAIS_2013.mxd*

EAGLE RIVER CHAIN OF LAKES ASSOCIATION

Native Plant Pledge

to improve water quality

By signing the Native Plant Pledge, I agree to do my part in fighting aquatic invasive species by **refraining from pulling native aquatic plants along my shoreline** unless absolutely necessary.

We can all play a role in keeping our water resources clean for fishing, swimming and drinking. I will do my best to protect the quality of our streams, lakes, rivers, wetlands and aquifers. In addition I will try to follow best practices to control erosion in my yard and on my shoreline as best as I can.

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

Aquatic Invasive Species Control Grants **Established Population Control Ranking Questions** **37** Maximum Points	**Ranking Points**	**Projected Aug13 Score**	
A. The degree to which the project includes a prevention and control strategy. **(6 points possible)**			
1) The water being controlled has, or the project includes, a Clean Boats, Clean Waters watercraft inspection program per the requirements of s. NR 198.22 (1)(d) or an approved Alternative Equivalent (see guidance).	2 points	2	400 hours paid inspectors/educators in addition to volunteer-based hours
2) The project will conduct other complimentary source containment activities that go above and beyond minimum level of inspection and signage (e.g. boat washing or cleaning stations, augmented enforcement).	2 points	2	Have instituted and continue to fund bucket brigade project. Also funds 400 hours of CBCW inspection.
3) The water being controlled has, or the project will train, volunteers to identify AIS and conduct water body surveillance monitoring for early detection using accepted WDNR or citizen-based monitoring (CLMN/Project RED, etc) protocols where data is being entered into SWIMS.	2 points	2	Have been trained in pervious stages. This project relies heavily on volunteer-based AIS surveys
B. The degree to which the project will prevent the spread of aquatic invasive species. (7 points possible)			
1a) The control activity will take place on a Statewide AIS Source Water listed on the following table.	5 points	*5*	On AIS Source Water list
OR			
1b) The control activity will take place on a major AIS source water with high public use (lakes greater than 500 acres and all boat-able rivers that meet or exceed the minimum boating access criteria in NR 1.91(4) or wetlands greater than 500 acres in public ownership) or the project includes a Statewide AIS Source Water where less than 50% of the activities are directed.	4 points	*got 1a*	
OR			
1c) The control activity takes place on a significant AIS source water with high public use (lakes between 500 and 100 acres and all rivers that meet or exceed the minimum boating access criteria in NR 1.91(4); wade-able streams with public access or wetlands between 500 and 100 acres in public ownership.	3 points	*got 1a*	
OR			
1d) The control activity takes place on an a minor AIS source water (lakes less than 100 acres that meet or exceed the minimum boating access criteria in NR 1.91(4); any river or stream with public access or wetlands less than 100 acres in public ownership).	2 points	*got 1a*	
2) The project will control a NR40 prohibited species e.g Hydrilla, yellow floating heart, spiny water flea, red swamp crayfish, etc.	2 points	0	EWM is "restricted," not "prohibited"
C. The degree to which the project protects or improves the aquatic ecosystem's diversity, ecological stability or recreational uses. (3 points possible)			
1) Project plan implementation includes stocking or planting to reintroduce native community species or implements other actions or changes in management strategies that will provide added protection to native species beyond herbicide treatments alone.	2 points	2	Non-removal of Native Plants riparians petition (Pledge) and educational initiative
2) Project area has a high degree of native biodiversity or is critical habitat, as expressed by: ● an above eco-region average aquatic or wetland plant FQI ● the presence of a listed aquatic species (NHI endangered, threatened or watch) ● is an ERW or ORW water ● has a Sensitive Area or Critical Habitat designation ● is within or adjacent to a State Natural Area, State Park, other publicly owned unique natural ea or such an area owned/managed by a nonprofit conservation organization (e.g., Nature Conservancy).	1 point	1	● Floristic Quality exceeds ecoregion median (FQI = 31.9) ● Vasey's Pondweed (NHI special concern) in all 10 lakes
D. The stage of the infestation in the water body. (4 points possible)			
1) Project addresses a pioneer population (as defined by s.198.12 (8)), or was a past early response project.	2 points	0	Neither
2) The target species is low in density and still at a controllable level as determined by being found in 25%, or less, of the colonizable area of the project water body (e.g. only the littoral zone of a lake can be colonized by EWM).	1 point	1	Well below 25% as indicated on table within project scope
3) It is well documented (P/I surveys or GIS mapping, verified) that the target species is a rapidly expanding population (doubling annual increase in areal coverage or FOO). Population is still under 25% threshold above.	1 point	0	Decreases in treatment acreage and reduction in EWM densities has been occuring since program has been put into place.
E. The degree to which the project will be likely to result in successful long-term control. (4 points possible)			
1) As also included in the approved management plan, the project employs multiple strategies (for the same species) to achieve and maintain control objectives. [e.g. hand pulling in combination with chemical treatment and biocontrol, draw downs, etc.]	2 points	2	Robust Paid Hand-harvesting Program
2) The sponsor has had a pre-application grant scoping consultation with the Department and the application is consistent with the results of those discussions.	1 point	1	Numerous correspondences in prior phases. This project was announced to WDNR prior to application deadline
3) There is a low risk of reestablishment and spread after control activity occurs. All of the following apply: the project site is not impounded; is not tributary to or connected to any other AIS populated water and; the entire AIS population is being targeted for control.	1 point	0	Is impounded

Aquatic Invasive Species Control Grants Established Population Control Ranking Questions 37 Maximum Points	**Ranking Points**	**Projected Aug13 Score**	
F. The availability of public access to, and public use of, the water body. (2 points possible)			
1) Any lake of 100 surface acres or greater and any boat-able river that has more than the minimum public boating access as defined in s. NR 1.91(4) or any wetland greater than 50 acres in public ownership.	1 point	1	Has more than minimum public access & is more than 100 acres
2) The water provides significant alternative public access and use opportunities that include two of the following at separate locations: public swimming beach; park or other public land with accessible frontage; public fishing pier or wildlife observation area; two or more private resorts, youth camps or sportsmen clubs; or where more than 50% of the lake or river shore in the project area is in public ownership.	1 point	1	15 motels/condominiums, 52 resorts and cottages, 2 bed and breakfast and 1 campground. Contains numerous access sites, public piers and swimming beaches
G. The degree to which the proposed project includes or is complemented by other management efforts including watershed pollution prevention and control, native vegetation protection and restoration and other actions that help control aquatic invasive species or resist future colonization. (2 points possible)			
Applicant demonstrates that they have implemented, or been a significant participant in, or the project proposes, a shoreland restoration, habitat protection, sediment and nutrient control, water level management or other substantial lake stewardship activity (not including education or planning) that protects the lake ecosystem. (Score 1 point per action, provide documentation).			
Activity 1	1 point	1	Shoreline demonstration site at Yellow Birch Boat Landing/public park
Activity 2	1 point	1	Chain wide purple loosestife mapping & control program being conducted in conjunction with Vilas County
2) The sponsor is a Green Tier Community Charter Member. (City of Middleton, Bayfield, Fitchburg, Appleton, Weston, Monona, Eau Claire, La Crosse, & the Village of Bayside)	1 point	0	
H. Community support and commitment, including past efforts to control aquatic invasive species. (5 points possible)			
1) This is demonstrated by requesting less than the maximum state share cost rate (cash costs) for the total project costs. No more than 25% of the project match can be in-kind or donated labor. The sponsor is requesting:			
65% State Share	1 points	-	
OR			
50% State Share	2 points	2	
2) The project has financial support from additional management units, interest groups or organizations committing > 10% of the **hard cash local match**.	1 point	1	50% of Local Share covered by sponsor (ULERCLC), 50% covered by individual lake associations.
3) The sponsor conducted AIS control, consistent with their Department-approved plan, in the previous season ***without*** financial assistance from the State. They may have begun implementation without a grant or received grants in past but not the past season.	1 point	0	conducted AIS control activities in 2013 with state grant funds
I. Whether the sponsor has previously received a grant for a similar project for the same water body. (2 points)			
1) There has not been an AIS Established Population Control grant for the same species in the same waterbody in the last five years.	2 points	0	part of a phased project
J. The degree to which the project will advance the knowledge and understanding of the prevention and control of aquatic invasive species. (1 point possible)			
1) Project has an evaluation component that will be conducted by an objective outside entity to assess project outcomes or is a participant in a Department-sponsored research and demonstration project on the AIS research priority list.	1 point	1	Has been active participant in HerbConc monitoring, as well as aided sediment HerbConc monitoring in 2013
		26	

	Overview Category	**Points**
The degree to which the project includes a prevention and control strategy.	A	6 / 6
The degree to which the project will prevent the spread of aquatic invasive species.	B	5 / 7
The degree to which the project protects or improves the aquatic ecosystem's diversity, ecological stability or recreational uses.	C	3 / 3
The stage of the infestation in the water body.	D	1 / 4
The degree to which the project will be likely to result in successful long-term control.	E	3 / 4
The availability of public access to, and public use of, the water body.	F	2 / 2
The degree to which the proposed project includes or is complemented by other management efforts including watershed pollution prevention and control, native vegetation protection and restoration and other actions that help control aquatic invasive species or resist future colonization.	G	2 / 3
Community support and commitment, including past efforts to control aquatic invasive species.	H	3 / 5
Whether the sponsor has previously received a grant for a similar project for the same water body.	I	0 / 2
The degree to which the project will advance the knowledge and understanding of the prevention and control of aquatic invasive species.	J	1 / 1
		26 / 37