WISCONSIN DEPARTMENT OF NATURAL RESOURCES
AQUATIC INVASIVE SPECIES GRANT PROGRAM

Application Materials

Little Saint Germain Lake AIS Control & Prevention Project: 2014-2018

Prepared for the

Little Saint Germain Lake Protection & Rehabilitation District

February 1, 2014

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Lake Management Planning

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INTRODUCTION

Photo 1. Little Saint Germain Lake, Vilas County. Taken in West Bay.

Little Saint Germain Lake, Vilas County, is a 980-acre lake comprised of two main drainage lakes (Lower East Bay, East Bay, No Fish Bay, and South Bay) that are fed via Muskellunge Creek, and a seepage lake (West Bay) which is groundwater fed and flows from the west-southwest (Map 1). Water flows out of South Bay via Little Saint Germain Lake into the nearby Wisconsin River. Water levels in the lake are artificially maintained approximately 5.0 feet higher than its natural level by a dam that is maintained by the Wisconsin Valley Improvement Company (WVIC). The WVIC utilizes Little Saint Germain Lake as a storage reservoir, where each winter it releases approximately 1.5 feet of water for use in hydroelectric power generation downstream on the Wisconsin River.

The non-native, invasive plant curly-leaf pondweed (*Potamogeton crispus*; CLP) was first documented in No Fish Bay in 2000, while fragments of Eurasian water milfoil (*Myriophyllum spicatum*; EWM) were first discovered floating near the boat landing in West Bay in the spring of 2003. Management actions aimed at reducing lake-wide levels of CLP and EWM have been conducted on Little Saint Germain Lake since 2003. In 2004, the Town of Saint Germain initiated the creation of an aquatic plant management plan for eight of the town's lakes, including Little Saint Germain Lake.

In early 2005, the Little Saint Germain Lake Protection and Rehabilitation District (LSGLPRD) successfully applied for a Wisconsin Department of Natural Resources (WDNR) Aquatic Invasive Species (AIS) Grant to aid in the control of CLP and EWM within the lake. After the grant was awarded, Onterra was contracted to locate and map both populations, develop treatment strategies, and monitor those treatments. This five-year control project ended in 2008, and based upon the results of this project, the WDNR requested that the LSGLPRD complete an updated aquatic plant management plan before lake management actions involving chemical treatments or harvesting activities commenced in 2009.

The updated aquatic plant management plan was finalized in 2010, and included a number of management goals, of which one was to control aquatic invasive species within Little Saint Germain Lake. In 2009, the LSGLPRD successfully applied for another WDNR AIS Control Grant to continue management of the lake's CLP and EWM populations from 2009-2013. Objectively monitoring the herbicide treatment over this timeframe has resulted in successes in controlling EWM and CLP within Little Saint Germain Lake. The proposed project would follow the herbicide treatment and monitoring framework established within the previous project and continue actively managing the aquatic invasive species within the lake for the next five years.

Little Saint Germain Lake is a highly sought after location amongst recreationists and anglers. In addition to the main public boat landing which contains a public pier, Little Saint Germain contains a canoe access site on Muskellunge Creek at Birchwood Drive. As defined by NR 1.91(4d), Little Saint Germain Lake exceeds minimum public boating access by having more than one access site with a total of more than 28 car-trailer parking spaces (1 per 35 open water acres). The system also contains 18 resorts, of which 6 contain their own private boat landing. In October of each year, the Annual Greater Wisconsin Muskie Tournament takes place on ten Saint Germain Area Lakes which includes Little Saint Germain.

These intense public use opportunities most likely contributed to Little Saint Germain Lake becoming infested with AIS. Although many lakes in the region contain EWM, Little Saint Germain Lake is one of only eight lakes in Vilas County containing CLP with the next closest lake containing CLP being over 8 miles away (Mid Lake, Oneida County). The proposed project would be beneficial to the downstream Rainbow Flowage, which does not contain CLP. The proposed project would further educate stakeholders about AIS; and along with the Clean Boats Clean Waters program, help reduce new infestations to the lake and reduced the risk of AIS from Little Saint Germain Lake infecting other area lakes.

PROBLEM IDENTIFICATION

Figure 1 shows the acreages of colonized EWM within Little Saint Germain Lake mapped by Onterra from 2008 to 2013, and shows that colonized acreage of EWM has declined from a maximum of approximately 30.1 acres in 2010 to approximately 3.6 acres in 2013. Based upon qualitative evaluation, the EWM population of Little Saint Germain Lake overall has declined over this time period; however, most of this decline has occurred in West and South Bays, while EWM has increased over this time period within Lower East Bay. The 2013 treatment was considered successful, and strategies proposed for 2014 are designed to target the EWM within Lower East Bay.

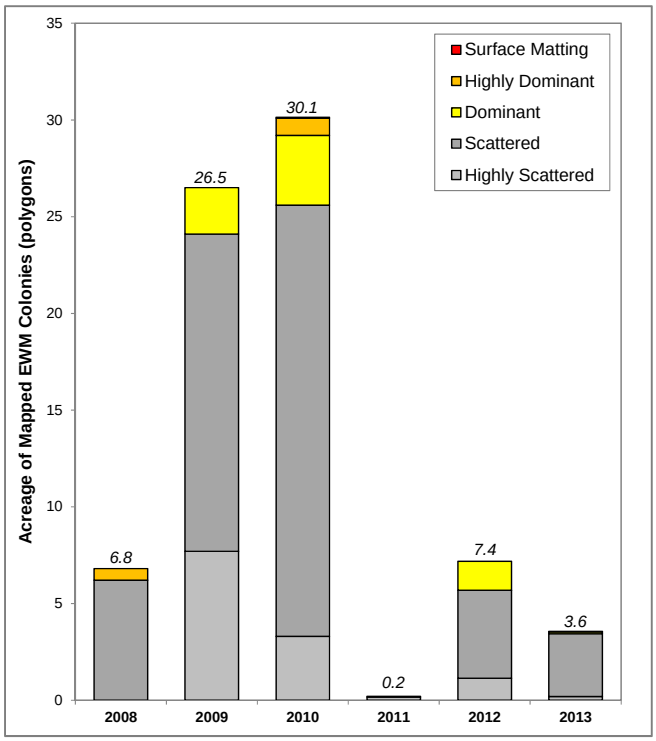


Figure 1. Acreage of mapped EWM colonies in Little Saint Germain Lake from 2008-2013.

Along with the amount of acreage treated each year, lake managers investigate the spatially-specific amount of acreage receiving treatment within a system. Over the course of the past five years, approximately 51 surface acres of Little Saint Germain Lake have been targeted for strategic control of CLP through herbicide treatments. As shown on the pie chart within Figure 2, the majority (46%) of this footprint consists of acreage that was treated for four years. Treatments occurring annually for multiple years to target CLP are a common strategy, and are done to continually deplete the turions that remain in the sediment. Acreage that was only

treated once or twice is likely the result of an effective treatment on a newly established area of CLP that did not establish a significant turion base.

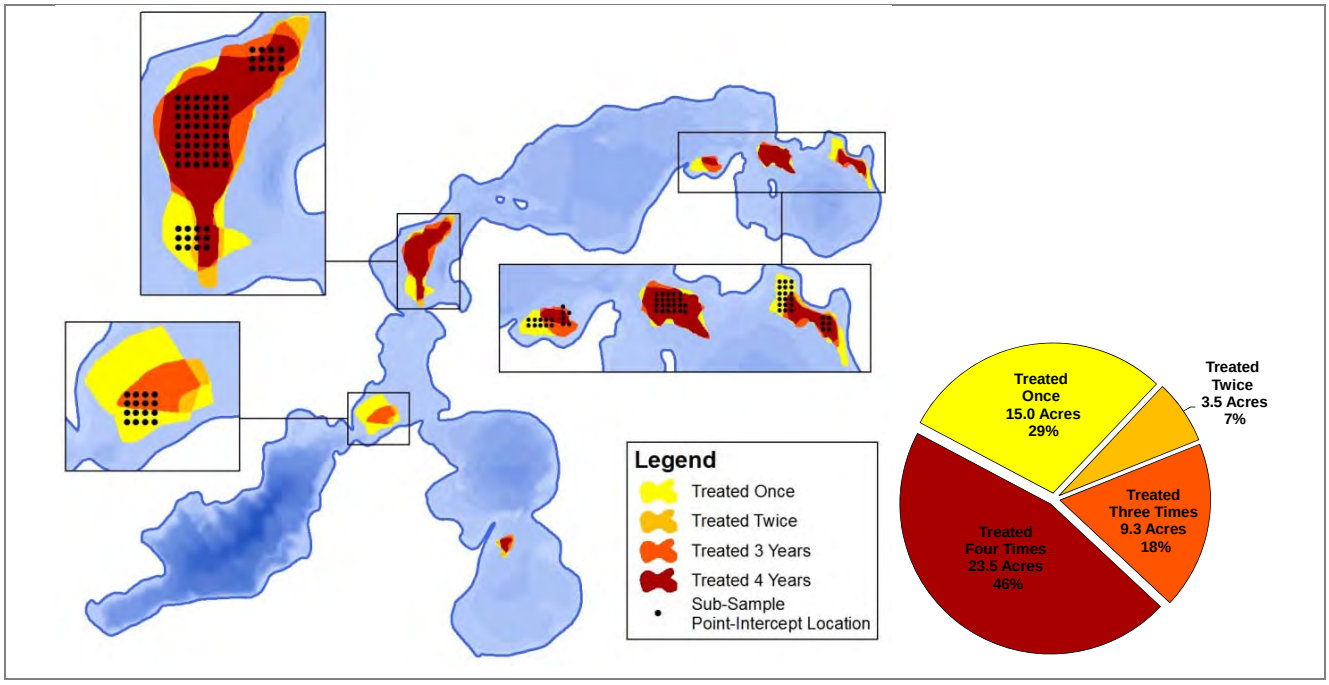


Figure 2. Surface acreage of CLP treated on Little Saint Germain Lake and quantitative monitoring plan.

As outlined within the final report for the project, the CLP control program carried out from 2009-2012 was highly successful at reducing CLP in No Fish Bay and East Bay. However, large colonies of CLP still persist within Lower East Bay and South Bay, largely in areas that have not been targeted for control in previous years. The district would like to continue objectively developing a successful AIS control strategy, building off past successes.

Numerous management options and alternatives have been, and continue to be, discussed by Onterra and the LSGLPRD. The 2014 preliminary control strategy outlines a whole-basin treatment strategy for Lower East Bay targeting both CLP and EWM using a combination of liquid endothall and 2,4-D (Map 2). In addition, spot treatments are proposed to occur over five areas; two of which are targeting both CLP and EWM and three targeting solely CLP. Areas targeting solely CLP are proposed to be treated with liquid endothall at a rate of 2.0 to 3.0 ppm ai depending on the size and depth of the treatment area. Combination endothall-2,4-D treatments targeting overlapping occurrences of EWM and CLP will utilize liquid 2,4-D at 2.0 ppm ae and liquid endothall at 1.5 ppm ai.

As elaborated on within each year's annual treatment report, having successful treatments when targeting small areas (< 5 acres) is difficult and inconsistent due to the rapid effects of dilution. The proposed project would utilize professional hand-harvesting services to strategically target AIS occurrences that fall into this category. The LSGLPRD has identified two firms that can be contracted with to carry out these services. Similar to the herbicide treatment sites, the professional hand-harvesting areas would be objectively monitored to understand success and limitations of this strategy, as well as the applicability of expansion to additional areas in the future.

PROJECT GOALS

The chief goal of this management project is bring AIS occurrences within Little Saint Germain to levels that minimally affect the aquatic ecosystem of the system. The impacts to native submersed species are believed to occur when the non-native species reaches an aerial coverage of approximately 50% (*dominant*). Therefore, by minimizing the occurrence of these dense stands, the exotic's impact on the lake's ecology would also be minimized. Because the primary goal is to better the lakes' ecological state, control actions must implemented to maximize impact on the target species while minimizing impacts on non-target, native species. Although all of the impacts are undesirable, the potential impacts to Little Saint Germain's native community is of special concern because of the high floristic quality (FQI=42.9) and large number of native species (N = 42, 49 including incidentals). To accomplish this, both target and non-target species must be monitored closely.

PROJECT 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				2016				2017				2018			
	W	Sp	Su	F	W	Sp	Su	F	W	Sp	Su	F	W	Sp	Su	F	W	Sp	Su	F
AIS-EPC Grant Application																				
Project Kick-off Meeting																				
AIS Pretreatment Survey																				
Quantitative Monitoring (PI Sub-sample)																				
CLP & EWM Treatment																				
Early Season AIS Survey																				
EWM Peak-biomass Survey																				
Annual Report																				
Whole-lake Point-intercept Survey																				
Community Mapping Survey																				
Shoreline & Course Woody Habitat Assessment																				
Stakeholder User Survey																				
Planning Committee Meeting																				
Aquatic Plant Mangement Plan Update - Draft																				
Aquatic Plant Mangement Plan Update - Final																				

PROJECT SCOPE

During this project, a general cycle of monitoring and reporting would be used to monitor target species as well as native species, and to develop and refine control strategies. The following cycle would be used annually during the duration of the project (Table 2).

Table 2. General cycle of monitoring and reporting

Task	Timeframe	Description
Spring Pretreatment Confirmation & Refinement Survey	Early spring prior to treatment	Survey confirms readiness of target species for treatment and provides information for final strategy refinements just prior to treatment
Herbicide Treatment	Water temps 50-55°F	Third party applicator conducts treatment per specification outlined
Early-Season AIS Survey	Late-June	Map CLP & EWM by density; used to evaluate and plan treatment strategy
Sub-sample Point-Intercept Survey	Early-spring/Late-summer	Grid-based survey to determine frequency of aquatic species; used to evaluate target and non-target impacts of treatment
EWM Peak-Biomass Survey	August/September	Map EWM by density while it is at its peak level of growth; used to evaluate and plan treatment strategy
Annual Letter Report	Winter	Delivers results of previous season's results and contains proposed treatment strategy for following spring

Spring Pretreatment Confirmation & Refinement Survey *(Early-Spring 2014-2018)*

A qualitative assessment would be completed prior to implementing the early-season herbicide treatment to verify treatment area extents and to inspect the condition of the target species. Proposed treatment areas would be verified through the use of a combination of surface surveys, rake tows, and submersible video monitoring.

Upon completion of the inspections, Onterra would provide a brief email letter report to the LSGLPRD and WDNR describing the results of the assessment and any recommended changes to that year's treatment strategy. If changes are suggested, Onterra would provide the updated treatment areas to the applicator once the updated strategy is approved by the WDNR and LSGLPRD.

Acoustic Survey *(Early-Spring 2014)*

A preliminary treatment strategy which includes a basin-wide treatment strategy for Lower East Bay is proposed for Little Saint Germain Lake in 2014. The success of this strategy relies upon accurate bathymetric (lake depth) information with which advanced water volume calculations are conducted. During the 2014 Spring Pretreatment Confirmation & Refinement Survey, Onterra would systematically collect continuous, advanced sonar data across Lower

East Bay, of which the data would be sent to a Minnesota-based firm for processing. The resulting data would produce an updated bathymetric map for Lower East Bay to allow for a more-accurate and updated dosing strategy to be developed for this treatment.

Chemical Applications *(Spring 2014-2018)*

It would be the responsibility of LSGLPRD 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* treatment of EWM per the specifications outlined on Map 2. The treatment would occur before June 1 and/or water temperatures reach 60°F, preferable closer to 55°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 2014 treatment costs are estimated at approximately $63,500. For budgeting purposes, the 2015 treatment would be the same as the 2014 treatment. Subsequent treatments (2016-2018) would decrease by 25% each year until the end of the project.

Early-Season AIS Survey *(Late-Spring 2014-2018)*

This survey would focus upon locating CLP, which has a very unusual life cycle compared to our native plants and is at peak biomass within Wisconsin lakes during late spring/early summer. Therefore, an inventory would be conducted during the early summer to map curly-leaf occurrences within the lake. Other AIS would also be mapped during this survey with specific notes being recorded as to whether finding should be revisited later in the summer. All areas found to contain EWM would be reassessed during the peak-biomass survey described below.

During these June surveys, the entire littoral zone of Little Saint Germain Lake would be searched for CLP and EWM. All incidences would be mapped with a sub-meter GPS data collector using either points or polygons, depending on the size of the finding. 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*.

Professional Hand-Harvesting *(Summer 2014-2018)*

The LSGPLRD has attempted to conduct volunteer-based hand harvesting in prior years, only to be met with insufficient volunteerism for a successful control effort to occur. The proposed project initiates professional hand-harvesting efforts throughout the course of this project. For budgeting purposes, the proposed project includes $3,000 worth of hand-harvesting each year. The amount of hand-harvesting effort will be dependent on the firm hired, the equipment used, and the number of divers in the water at a time.

EWM Peak-Biomass Survey *(Late-Summer 2014 & 2015)*

As the name implies, the EWM peak-biomass survey is completed when the plant is at its peak growth, allowing for a true assessment of the amount of this exotic within the waterbody. This survey would include a complete meander survey of the littoral zone by professional ecologists. All incidences would be mapped with a sub-meter GPS data collector using either points or polygons, depending on the size of the finding. 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 result of the EWM peak-biomass survey will be documentation of the EWM population with the lake each year. These data will be compared against those collected during the previous year to allow a qualitative understanding of how the EWM population changed within areas treated and not treated. Qualitatively, a successful treatment would include a reduction of EWM density within the treatment area as demonstrated by a decrease in two density ratings (e.g. *Highly Dominant* to *Scattered*).

Quantitative Aquatic Plant Monitoring *(Early-Spring 2014-2018 & Late-Summer 2014-2018)*

Throughout the proposed project quantitative treatment evaluations would be conducted using a modified point-intercept methodology consistent with the Appendix D of the WDNR Guidance Document, *Aquatic Plant Management in Wisconsin* (WDNR 2010). In general, a sub-sample point-intercept grid will be placed over the EWM and CLP treatment areas and monitored before and after the treatments.

In association with the basin-wide treatment of Lower East Bay, the whole-lake point-intercept sampling locations would be visited just prior to the treatment and during the late-summer following the treatment. These data will be compared to those collected during the late-summer of 2014 to understand treatment efficacy and selectivity.

Sub-sample locations within those areas targeting CLP would be sampled the spring (April-May) before the treatment (pretreatment) and the next spring following the treatment (post treatment). Because CLP normally dies back in early summer, it is impossible to determine if the treatment was successful based upon a post treatment survey completed during early summer. This is because it would remain unknown whether the observations were a result of the treatment or simply related to the normal life cycle of the plant. The frequency of CLP each spring will be a direct result of the turions that sprouted the previous fall/winter. If the control strategy is effectively killing CLP before it produces turions, a reduction in CLP sprouting from those turions should be apparent after a few years of control. It must be noted that only looking at this data within the confines of a single pre- and post treatment timeframe is problematic as it is suspected that the populations of CLP within some areas will be maintained for years from a large turion base that has built up over time.

Sub-sample locations within those areas targeting EWM would be sampled the summer before the treatment (pretreatment) and the summer following the treatment (post treatment), allowing an understanding of treatment efficacy and selectivity to be made. Quantitatively, a

successful EWM treatment would include a statistically valid reduction in EWM frequency following the treatments as exhibited by at least a 75% decrease in exotic frequency from the pre- and post-treatment point-intercept sampling.

Volunteer-based Herbicide Concentration Monitoring *(Spring 2014 & 2015)*

In conjunction with the WDNR and US Army Corps of Engineers (USACE), herbicide concentration monitoring at strategic locations throughout the system would take place to understand the concentration/exposure time of the herbicide at different time periods and locations following the treatment. This information would indicate whether or not the amount of herbicide applied is sufficient for causing AIS mortality and if any adjustments in treatment strategy need to be made in the future.

As has occurred in the past, water samples would be collected by trained volunteers from the LSGLPRD. The properly preserved samples would be sent to the USACE for laboratory analysis. Under the current program, there would be no analysis costs for the USACE to run the samples. Coupling the herbicide concentration data with the point-intercept data will be valuable for assessing the treatment strategies

The LSGLPRD would encourage the WDNR to continue monitoring herbicide pore-water concentrations within on Little Saint Germain Lake and would be willing to aid in that capacity as appropriate.

Volunteer EWM Surveillance Monitoring *(Summer 2014-2018)*

In lakes without AIS, early detection of pioneer colonies commonly leads to successful control and in cases of very small infestations, possibly even eradication. Even in lakes where these plants occur, monitoring for new colonies is essential to successful control. LSGLPRD members have been trained on AIS identification and surveillance monitoring strategies and have been carrying out these activities since 2002.

As discussed above, professional EWM surveys would be conducted annually during the late-summer. The LSGLPRD has purchased a hand-held GPS unit that is capable of supporting Onterra-created basemaps. Prior to the start of summer, the LSGLPRD's GPS would be loaded with basemaps of the previous summer's AIS locations as well as that year's treatment areas.

Volunteers will focus their survey efforts on parts of the system that did not contain AIS in the previous surveys. The volunteers would then provide locations of AIS species to Onterra via electronic format. These locations would be focused on during Onterra's subsequent survey making more efficient use of professional time while engaging stakeholders in the program.

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.

Aquatic Plant Management Plan Update

LSGLPRD's current management plan was completed by Onterra during December 2010, with the majority of the plant surveys occurring during the summer of 2008. At the end of the proposed 5-year project, the LSGLPRD would have an updated Aquatic Plant Management Plan as an aspect of this project. This would allow the LSGLPRD to integrate the successes/limitation learned during the course of this project into a revised implementation strategy. The following components are included within the proposed project to complete this task:

- Whole-lake point-intercept survey
- Floating-leaf and emergent plant community mapping survey
- Shoreland assessment and course woody habitat surveys
- Stakeholder user survey
- Planning Committee Meeting – Develop Implementation Plan

Point-intercept Survey Pretreatment Survey (Summer 2017)

The point-intercept method as described in Recommended Baseline Monitoring of Aquatic Plants in Wisconsin: Sampling Design, Field and Laboratory Procedures, Data Entry, and Analysis, and Applications (WDNR PUB-SS-1068 2010) would be used to complete this study. Based on guidance from the WDNR, a point spacing of 75 meters would be used resulting in approximately 699 sample locations.

The point-intercept survey would be completed during the summer of 2017 and would be compared to the 2004, 2008, and 2013 point-intercept surveys. A Chi-square distribution analysis (alpha = 0.05) would be used to determine which plant abundances are statistically different (increase or decrease) between the two surveys. The alpha value is set such that we consider the results statistically significant when the test is 95% confident that the results are truly different and non-random.

Community mapping survey (Summer 2017)

The point-intercept methodology is very useful for capturing the species richness and diversity of a submersed aquatic plant community. However, often the presence of emergent or floating-leaf vegetation is not adequately sampled with this survey type. Emergent and floating-leaf vegetation are often found within shallow reaches of a lake and thus can be hard to access in watercraft. To document the presence of these aquatic plant communities, a community mapping survey was conducted on Little Saint Germain Lake in 2004, 2008, and 2013. The proposed project would replicate this survey again in 2017. During the survey, emergent and floating-leaf aquatic plant communities would be documented with sub-meter accuracy GPS technology in two formats, point-based and polygon-based methods. A single GPS waypoint would be taken at the location of smaller communities (less than 40 ft diameter or length) while polygons would be delineated around larger communities. Species presence would also documented in order of most prevalent within the community to least prevalent.

Shoreland Condition & Course Woody Habitat Assessment (Fall 2017)

Using a GPS data collector with sub-meter accuracy, the immediate shoreline of Little Saint Germain Lake would be surveyed and classified based upon its potential to negatively impact the system due to shoreline development and other anthropogenic impacts. Examples of these

negative impacts include shoreland areas that are maintained in an unnatural manner and impervious surfaces.

The resulting map would delineate the lake's shoreline, from the water's edge to approximately 35-feet shoreward, into one of five categories ranging from "Urbanized" to "Natural/Undeveloped". Ultimately, the information would be used to prioritize areas for restoration and protection that would likely have a benefit to the Little Saint Germain Lake ecosystem.

During the shoreland condition survey, all incidences of course woody habitat extending at least 5 feet into the lake, in water depths exceeding 1 foot, and with trunk diameters exceeding 2 inches would be mapped and described based upon size and complexity. This type of structure is important habitat for fish and other aquatic organisms; therefore, this information would be useful in determining whether the lake management plan should include the enhancement of woody structure in the lake.

STAKEHOLDER PARTICIPATION

Partnerships

The Saint Germain Town Lakes Committee has been, and continues to be, a valuable partner to the LSGLPRD providing money and resources to AIS control and ecological habitat restoration on Little Saint Germain Lake.

Complementary Management Efforts

Watershed and Nutrient Loading Studies

The LSGPRD has worked intensively with the United States Geologic Society (USGS), Barr Engineering, and Foth & Van Dyke to discover the sources of internal and external nutrient sources for Little Saint Germain Lake. These advanced studies allow an understanding of the Little Saint Germain nutrient budget that surpasses the general understanding of lake nutrient dynamics that exists for most area lakes.

Restricted Use

Through the Township of Saint Germain, the LSGLPRD has implemented an ordinance that protects the integrity of valuable areas on Little Saint Germain Lake. Narrow and shallow constrictions between lake basins have been designated as slow-no-wake zones, marked with buoys, to increase public safety and decrease negative effects on near-shore areas. 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.

Shoreland Habitat Restoration

The LSGLPRD successfully secured a Lake Projection grant to conduct shoreland restoration work on Little Saint Germain. This project aims to 1) measure the value for riparian buffers restoration for fish and wildlife populations, 2) test the effectiveness of vegetated buffers to reduce overland runoff and nutrient loads from developed near shore lawns, and 3) develop best management practices for lakeshore restoration in Vilas County. Through the assistance

of Mike Meyers, WDNR research scientist, this project is currently underway with multiple properties involved.

Boat-washing Pull-over Station

Through the coordination of Dan Jacoby from the Northern Highland American Legion State Forest, a specific area has been constructed that allows departing boats to be cleaned and drained since the take-out area at the bottom of the hill isn't suitable (due to the slope) for safe and proper AIS cleaning. One sign was placed half-way up the steep boat landing ramp reminding boaters to remove all aquatic plants from their boats and trailers. Another sign was placed designating an area where stakeholders can pull over and conduct these activities. Placing signage of this nature at boat landings that contain AIS serve to help protect other uninfected lakes in the area and within the state.

Winter Aeration

Diminishment of dissolved oxygen levels during the winter in some parts of Little Saint were thought to be contributing to fish mortality and less than optimal fish reproduction according to a study conducted by the United States Geological Survey (USGS). Therefore 2 aeration systems were installed on Little Saint Germain Lake, one on Lower East Bay and one on South Bay.

Beaver Control and Muskellunge Creek Restoration Efforts

Prior to 2006, the Muskellunge Creek had accumulated approximately 40 years of beaver construction resulting in many impoundments where nutrients were allowed to be absorbed into the water. The District contracted with US Department of Agriculture in 2006 to remove dozens of dams and the beavers that built them. All impoundments were eliminated and the stream was restored to fast moving, cold water. The stream has been maintained in that condition since 2006 through ongoing annual contracts with US Department of Agriculture. The USGS is currently completing a multiyear study to determine to what extent stream restoration has benefitted the lake.

Clean Boats Clean Waters Program

The intent of the boat inspections would not only be to prevent additional invasives from entering the lake through its public access points, but also to prevent the infestation of other waterways with invasives that originated in Little Saint Germain Lake. The goal would be to cover the landing 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.

The main public boats landing on Little Saint Germain is monitored through training provided by the Clean Boats Clean Waters (CBCW) program. The LSGLPRD has applied for a stream-lined CBCW WDNR Grant to cover well 300 hours of watercraft inspections annually.

Planning Committee Meeting

Following the completion of the data collection during the summer of 2017 and subsequent analysis of that data, a single meeting would be held in order to present the project's results and preliminary recommendations to a sub-committee (Planning Committee) of the

LSGLPRD and to complete a prioritized implementation plan as it pertains to aquatic plant management and shoreland habitat protection. This would be a very important meeting because it would facilitate the combination of the technical aspects of the project and the prioritized goals of the lake stakeholders. The result of this combination would be the updated aquatic plant management plan for Little Saint Germain Lake (aquatic plant section, shoreland conditions section, and implementation plan section referring to these two components).

Because the planning meeting involves a smaller group of people, we suggest that these meetings be held during a weekday afternoon or evening, preferably Monday – Thursday. Often, these meetings are held on a Thursday afternoon at a residence or other location on or near the lake. Onterra would facilitate the meeting by making the necessary contacts and by supplying result summaries in the form of hardcopy maps and narratives along with projected presentations.

Kick-off Meeting *(Winter 2015)*

After the first year of the proposed project, a general public meeting would be held to inform stakeholders about the proposed AIS control project and its goals.

Committee-Level Meetings

An important component of the proposed project is to ensure a bi-directional flow of information occurs between Onterra ecologists and LSGLPRD Board Members. Up to three committee-level meetings are included within the proposed project with the sole intention of discussing components of the proposed project.

Stakeholder Survey *(2017*

Comments and opinions would be solicited from Little Saint Germain Lake stakeholders to gain important information regarding their understanding of the lake and thoughts on how it should be managed. The information would be collected through a written survey/comment form sent via mail to each member household.. This information would be critical to the development of a realistic plan by supplying an indication of the needs of the stakeholders and their perspective on the management of the lake. It would be the responsibility of the Planning Committee to prepare the survey mailing and collect and summarize the results. Onterra would create the survey content and lead the interpretation of the results. Below is an outline of these activities:

1. Onterra distributes standard survey to planning committee
2. Planning committee develops additional questions and options to be included within the survey
3. Onterra updates survey and submits to WDNR for approval
4. WDNR approved survey is provided to planning committee
5. Planning committee prints survey, stuffs surveys in envelopes, and mails out surveys to distribution list they develop
6. Completed surveys are returned to planning committee and then provided to third party contractor to tally survey results into an Onterra-provided Excel spreadsheet.
7. Excel spreadsheet of entered data is emailed to Onterra for analysis

PROJECT DELIVERABLES

Annual Reports

During the winter months following each year's control program, a report would be provided that would include an assessment of that year's control program as well as guidance for the following year. A map depicting the AIS survey results and recommended hand-harvesting and herbicide treatment areas would be included within the report. All reports would be presented in electronic format via email.

Little Saint Germain Aquatic Plant Management Plan Update

The final product for this project would be a single report that would include the methodologies and results of the tasks described above; a discussion concerning those results as they apply to the current health, rehabilitation, and protection of Little Saint Germain; and the full-color maps described in the Project Scope. Management, protection, enhancement alternatives and recommendations would be presented along with continued public education issues. The results of the planning committee meeting discussions would be incorporated into an updated Implementation Plan Section as it pertains to aquatic plant management on Little Saint Germain Lake. If the LSGLPRD decides to also update water quality and watershed, they would require additional funding through the WDNR Lake Planning Grant program or the AIS Education, Planning, and Protection program.

Upon finalization of the report and acceptance by the WDNR, two hard copies and two electronic copies on CD would be provided to the LSGLPRD. The report would be made available electronically via email or other suitable venue for the WDNR and other interested parties.

Stakeholder Participation

The LSGLPRD would be responsible for providing the necessary deliverables for those components listed within the Stakeholder Participation Section. The deliverables for these activities include entering the appropriate information within the WDNR's Surface Water Integrated Monitoring System (SWIMS).

TABLE 3. SUMMARIZED PROJECT COST BREAKDOWN

Monitoring and Stakeholder Participation	**Cash Costs**	**Donated Value**
Project Administration & Communication	$2,085.00	
2014 Treatment Monitoring (Year 1)	$8,515.00	
2015 Treatment Monitoring (Year 2)	$7,740.00	
2016 Treatment Monitoring (Year 3)	$7,740.00	
2017 Treatment Monitoring (Year 4)	$7,740.00	
2018 Treatment Monitoring (Year 5)	$7,740.00	
Aquatic Plant Management Plan Update - 2017/2018	$7,960.00	
Miscellaneous Items & Meetings	$1,950.00	
Travel - Mileage (0.58/mile)	$8,345.00	
Monitoring and Stakeholder Participation Subtotal	*$59,815.00*	*$0.00*
Herbicide Application and Related Fees		
T2014 Costs	$65,270.00	
T2015 Costs	$65,270.00	
T2016 Costs	$49,395.00	
T2017 Costs	$37,488.75	
T2018 Costs	$28,559.06	
Herbicide Application and Related Fees Subtotal	*$245,982.81*	*$0.00*
Professional Hand-Harvesting Services		
2014 Professional Hand-Harvesing (100 diver-hours)	$3,000.00	
2015 Professional Hand-Harvesing (100 diver-hours)	$3,000.00	
2016 Professional Hand-Harvesing (100 diver-hours)	$3,000.00	
2017 Professional Hand-Harvesing (100 diver-hours)	$3,000.00	
2018 Professional Hand-Harvesing (100 diver-hours)	$3,000.00	
Professional Hand-Harvesting Subtotal	*$15,000.00*	*$0.00*
Volunteer Efforts		
Volunteer Efforts Subtotal	*$500.00*	*$6,148.00*
Project Subtotals	***$321,297.81***	***$6,148.00***
Total Project	**$327,445.81**	
State Share Requested (50%)	**$163,722.91**	

TABLE 4. ITEMIZED PROJECT COST BREAKDOWN

	Cash Costs	Donated Value
Monitoring and Stakeholder Participation		
Project Administration & Communication	$2,085.00	
2014 Treatment Monitoring (Year 1)		
T2014 Pretreatment Confirmation & Refinement Survey - April/May	$975.00	
2014 Quantitative CLP Monitoring (Sub-sample PI Survey) - April/May	$840.00	
Acoustic Survey of Lower East Bay	$385.00	
T2014 Final Permit Map Creation & Spatial Data Transfer to Applicator	$155.00	
2014 Early-season AIS Survey - June	$1,945.00	
2014 EWM Peak-biomass Survey - August/September	$1,765.00	
2014 Quantitative EWM Monitoring (Sub-sample PI Survey) - April/May	$510.00	
T2014 Treatment Report (includes T2015 Planning) - Winter	$1,430.00	
Project Kick-off Meeting	$510.00	
2015 Treatment Monitoring (Year 2)		
T2015 Pretreatment Confirmation & Refinement Survey - April/May	$995.00	
2015 Quantitative CLP Monitoring (Sub-sample PI Survey) - April/May	$865.00	
T2015 Final Permit Map Creation & Spatial Data Transfer to Applicator	$155.00	
2015 Early-season AIS Survey - June	$1,970.00	
2015 EWM Peak-biomass Survey - August/September	$1,790.00	
2015 Quantitative EWM Monitoring (Sub-sample PI Survey) - April/May	$535.00	
T2015 Treatment Report (includes T2016 Planning) - Winter	$1,430.00	
2016 Treatment Monitoring (Year 3)		
T2016 Pretreatment Confirmation & Refinement Survey - April/May	$995.00	
2016 Quantitative CLP Monitoring (Sub-sample PI Survey) - April/May	$865.00	
T2016 Final Permit Map Creation & Spatial Data Transfer to Applicator	$155.00	
2016 Early-season AIS Survey - June	$1,970.00	
2016 EWM Peak-biomass Survey - August/September	$1,790.00	
2016 Quantitative EWM Monitoring (Sub-sample PI Survey) - April/May	$535.00	
T2016 Treatment Report (includes T2017 Planning) - Winter	$1,430.00	
2017 Treatment Monitoring (Year 4)		
T2017 Pretreatment Confirmation & Refinement Survey - April/May	$995.00	
2017 Quantitative CLP Monitoring (Sub-sample PI Survey) - April/May	$865.00	
T2017 Final Permit Map Creation & Spatial Data Transfer to Applicator	$155.00	
2017 Early-season AIS Survey - June	$1,970.00	
2017 EWM Peak-biomass Survey - August/September	$1,790.00	
2017 Quantitative EWM Monitoring (Sub-sample PI Survey) - April/May	$535.00	
T2017 Treatment Report (includes T2018 Planning) - Winter	$1,430.00	
2018 Treatment Monitoring (Year 5)		
T2018 Pretreatment Confirmation & Refinement Survey - April/May	$995.00	
2018 Quantitative CLP Monitoring (Sub-sample PI Survey) - April/May	$865.00	
T2018 Final Permit Map Creation & Spatial Data Transfer to Applicator	$155.00	
2018 Quantitative CLP Monitoring (Sub-sample PI Survey) - April/May	$1,970.00	
2018 Early-season AIS Survey - June	$1,790.00	
2018 EWM Peak-biomass Survey - August/September	$535.00	
T2018 Treatment Report (includes T2019 Planning) - Winter	$1,430.00	
Aquatic Plant Management Plan Update - 2017/2018		
Whole-lake Point-intercept Survey & Data Analysis	$1,905.00	
Communitiy Mapping Survey, Map Creation, & Data Analysis	$1,505.00	
Planning Meeting - Winter/Spring	$680.00	
Aquatic Plant Management Plan Update	$1,610.00	
Plant Specimen Preservation for Vouchering	$360.00	
Shoreline & Course Woody Habitat Assessment	$1,380.00	
Stakeholder Comment Survey	$520.00	
Committee-Level Meetings (up to 3)	$1,425.00	
Acoustic Data Processing	$300.00	
General Printing & Voucher Materials	$225.00	
Travel - Mileage (0.58/mile)	$8,345.00	
Monitoring and Stakeholder Participation Subtotal	*$59,815.00*	*$0.00*

Table continued on following page

Continued from previous page

Herbicide Application and Related Fees		
T2014 Costs		
Herbicide Application Costs (Product & Labor)	$63,500.00	
Applicator Mobilization	$500.00	
WDNR Permit Fees	$1,270.00	
T2015 Costs		
Herbicide Application Costs (Product & Labor)	$63,500.00	
Applicator Mobilization	$500.00	
WDNR Permit Fees	$1,270.00	
T2016 Costs		
Herbicide Application Costs (Product & Labor)	$47,625.00	
Applicator Mobilization	$500.00	
WDNR Permit Fees	$1,270.00	
T2017 Costs		
Herbicide Application Costs (Product & Labor)	$35,718.75	
Applicator Mobilization	$500.00	
WDNR Permit Fees	$1,270.00	
T2018 Costs		
Herbicide Application Costs (Product & Labor)	$26,789.06	
Applicator Mobilization	$500.00	
WDNR Permit Fees	$1,270.00	
Herbicide Application and Related Fees Subtotal	*$245,982.81*	*$0.00*
Professional Hand-Harvesting Services		
2014 Professional Hand-Harvesing (100 diver-hours)	$3,000.00	
2015 Professional Hand-Harvesing (100 diver-hours)	$3,000.00	
2016 Professional Hand-Harvesing (100 diver-hours)	$3,000.00	
2017 Professional Hand-Harvesing (100 diver-hours)	$3,000.00	
2018 Professional Hand-Harvesing (100 diver-hours)	$3,000.00	
Professional Hand-Harvesting Subtotal	*$15,000.00*	*$0.00*
Volunteer Efforts		
Herbicide Concentration Monitoring		
Volunteers (10 events @ 2hrs/event = 20hr x 2 yrs)		$480.00
Volunteer Watercraft Use (4 days @ $70/day x 2 yrs)		$560.00
Volunteer AIS Survelience Monitoring		
Volunteers (20 hrs x 5 yrs)		$1,200.00
Volunteer Watercraft Use (4 days @ $70/day x 5 yrs)		$1,400.00
Kick-off Meeting		
Volunteer Participation (30 people x 1.5 hrs)		$540.00
Planning Committee Meeting		
Volunteer Participation (8 people x 4 hrs)		$384.00
Stakeholder Survey		
Volunteer Participation (8 people x 4 hrs)		$384.00
Association Printing, Mailing, & Postage Costs	$500.00	
Grant Administration		
Volunteers (20 hrs x 5 yrs)		$1,200.00
Volunteer Efforts Subtotal	*$500.00*	*$6,148.00*
Project Subtotals	***$321,297.81***	***$6,148.00***
Total Project	**$327,445.81**	
State Share Requested (50%)	**$163,722.91**	

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: Little Saint Germain Lake Protection & Rehabilitation District

Waterbody Name: Little Saint Germain Lake

Project County/Township/Section/Range: Vilas/T40N//R08E/S35

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
Cheryl Kelsey	Tim Hoyman
Authorized Representative Title	**Project Contact Title**
Secretary	Aquatic Ecologist; Onterra, LLC
Address	**Address**
PO Box 129	815 Prosper Road
City / State / ZIP Code	**City / State / ZIP Code**
Saint Germain / WI / 54558	De Pere / WI / 54115
Daytime Phone (area code)	**Daytime Phone (area code)**
(715) 614-2323	920.338.8860
Evening Phone (area code)	**Evening Phone (area code)**
(715) 614-2323	
E-Mail Address	**E-Mail Address**
sellthenorthwoods@gmail.com	thoyman@onterra-eco.com

Mail Check to: (if different from applicant)

Name and Title	Address
Organization	City / State / ZIP Code

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
Little Saint Germain Lake AIS Control & Prevention Project: 2014-2018	June 30, 2019

Other Management Units	Letter of Support	Other Management Units	Letter of Support
1. Town of Saint Germain	☐	4.	☐
2. Vilas County Land and Water Conservation Dept.	☐	5.	☐
3.	☐	6.	☐

Section IV: Public Access

Number of Public Vehicle Trailer Parking Spaces Available at Public Access Sites: 30

Number of Public Access Sites Including Boat Launches and Walk-ins: 1 main landings with another access location

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	Project Costs: Column 2 Donated Value	*DNR Use Only*
1. Salaries, wages and employee benefits			
2. Consulting services (includes shipping/voucher materials)	$59,815.00		
3. Purchased services: Herbicide Applications	$239,632.81		
4. Other purchased services (specify) : WDNR Permit Fees	$6,350.00		
5. Plant material			
6. Supplies (specify): Stakeholder Printing & Mailing	$500.00		
7. Depreciation on equipment			
8. Hourly equipment use charges			
9. State Lab of Hygiene (SLOH) Costs			
10. Non-SLOH Lab Costs			
11. Other (specify): Professional Hand-harvesting/ Volunteer In-kind Labor	$15,000.00	$6,148.00	
12. **Subtotals** (Sum each column)	*$321,297.81*	*$6,148.00*	
13. **Total Project Cost Estimate** (sum of **column 1** plus sum of **column 2)**	**$327,445.81**		
14. **State Share Requested (up to 75% of total costs may be requested)**	**$163,722.91**		

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

50% Funding Level

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

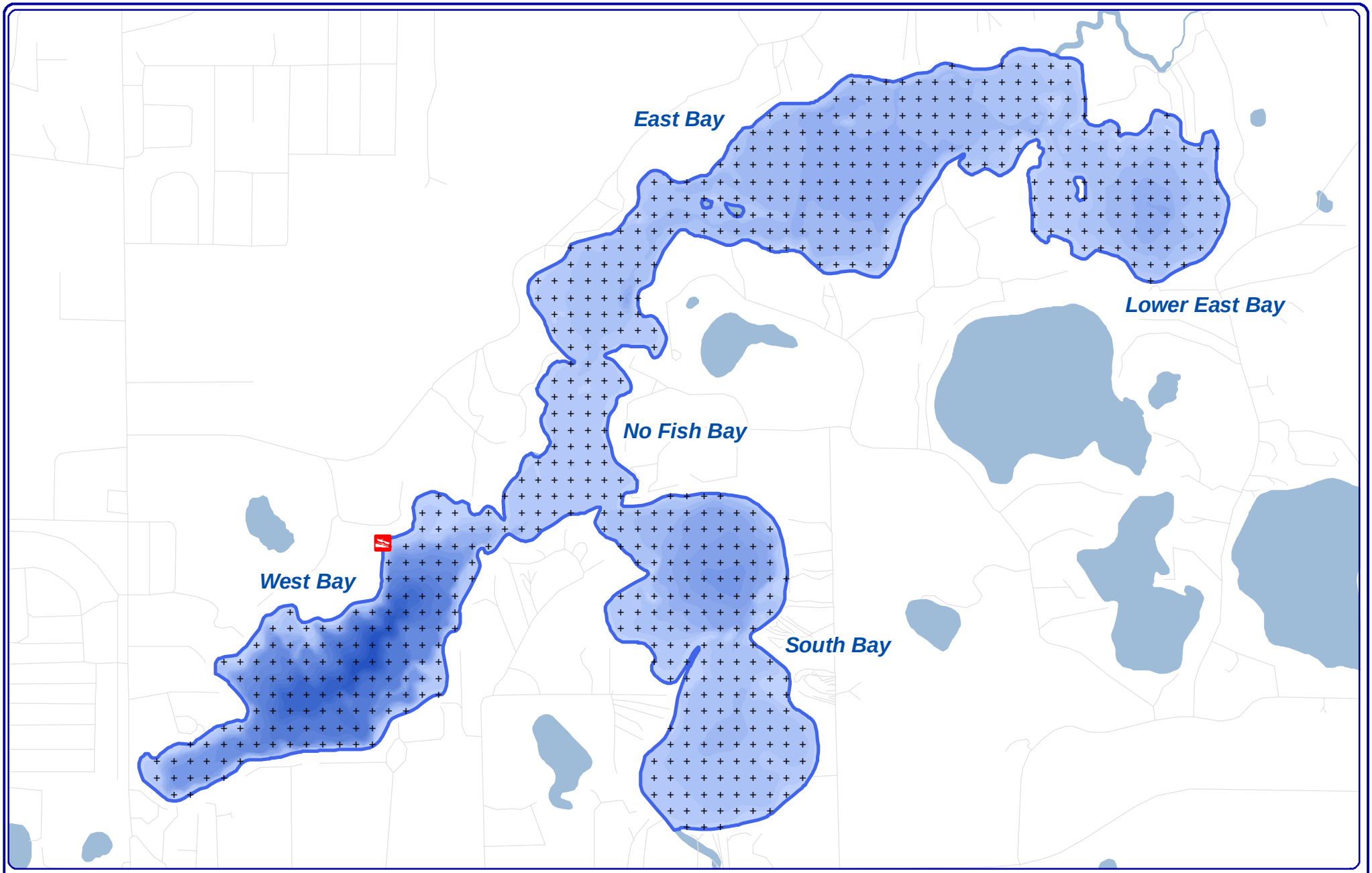
E. Established Infestation Control Projects:

- ☒ 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
Cheryl Kelsey	Secretary
Signature of Authorized Representative	Date Signed



N
W E
S

1,900
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
Bathymetry: WDNR, digitized by Onterra
Map Date: January 10, 2014
Filename: Map1_LSG_Location.mxd

Project Location in Wisconsin

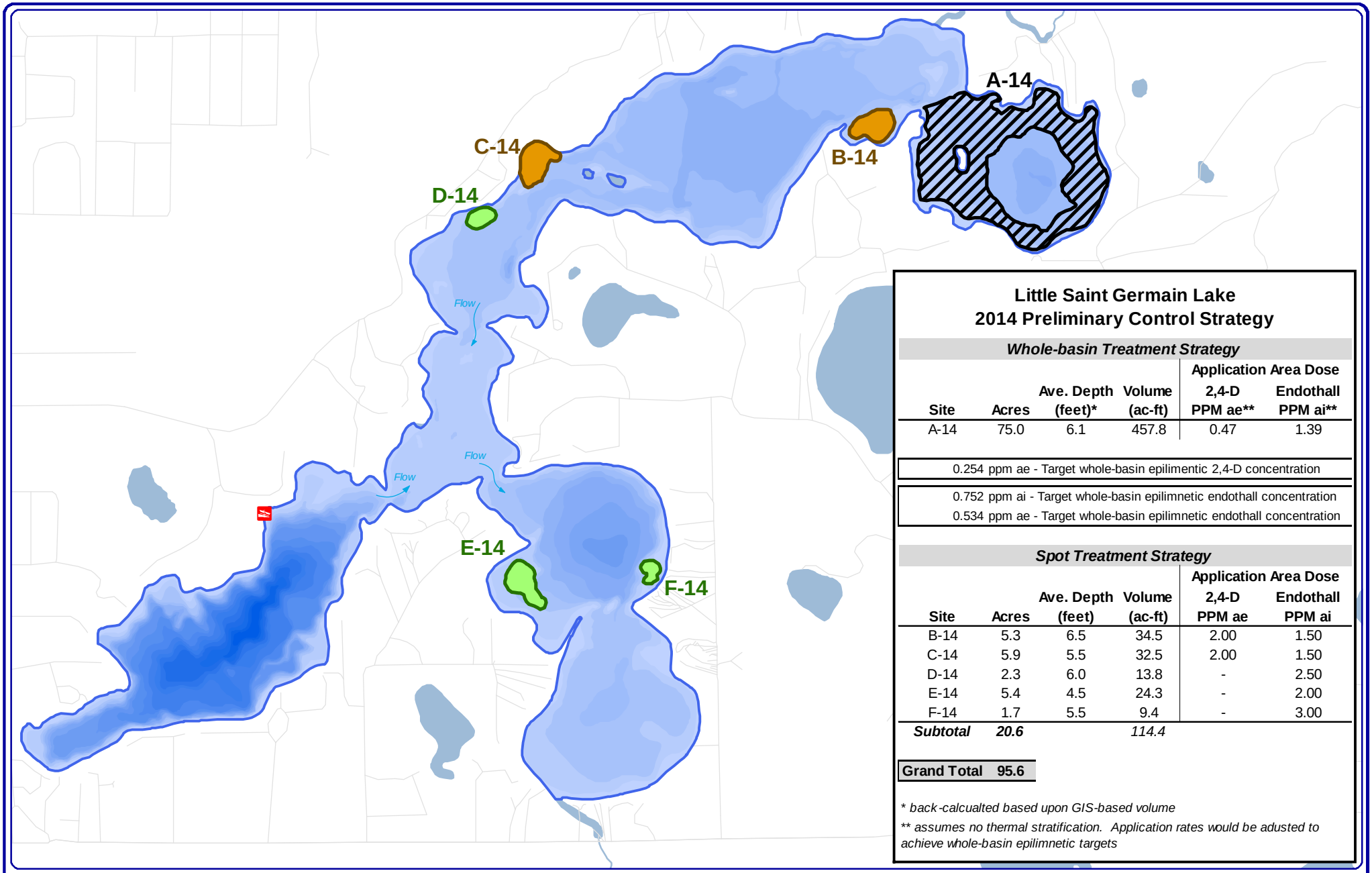
Legend

Little Saint Germain Lake ~980 acres
WDNR Definition

\+ Point-Intercept Survey Location
75-meter spacing, 699 total points

Public Access

Map 1
Little Saint Germain Lake
Vilas County, Wisconsin
Project Location & Lake Boundaries



Little Saint Germain Lake
2014 Preliminary Control Strategy

Whole-basin Treatment Strategy

Site	Acres	Ave. Depth (feet)*	Volume (ac-ft)	Application Area Dose 2,4-D PPM ae**	Application Area Dose Endothall PPM ai**
A-14	75.0	6.1	457.8	0.47	1.39

0.254 ppm ae - Target whole-basin epilimentic 2,4-D concentration

0.752 ppm ai - Target whole-basin epilimnetic endothall concentration
0.534 ppm ae - Target whole-basin epilimnetic endothall concentration

Spot Treatment Strategy

Site	Acres	Ave. Depth (feet)	Volume (ac-ft)	Application Area Dose 2,4-D PPM ae	Application Area Dose Endothall PPM ai
B-14	5.3	6.5	34.5	2.00	1.50
C-14	5.9	5.5	32.5	2.00	1.50
D-14	2.3	6.0	13.8	-	2.50
E-14	5.4	4.5	24.3	-	2.00
F-14	1.7	5.5	9.4	-	3.00
Subtotal	***20.6***		*114.4*		

Grand Total 95.6

** back-calcualted based upon GIS-based volume*

*** assumes no thermal stratification. Application rates would be adusted to achieve whole-basin epilimnetic targets*

N W E S

1,900
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
Bathymetry: WDNR, digitized by Onterra
Aquatic Plants: Onterra, 2013
Map Date: July 31, 2013
File Name: LSG_AIS_T2014Prelim1.mxd


Project Location in Wisconsin

Legend

- Whole-basin Strategy Targeting EWM and CLP *(Liquid 2,4-D + Endothall)*
- Spot Treatment Strategy Targeting EWM and CLP *(Liquid 2,4-D + Endothall)*
- Spot Treatment Strategy Targeting CLP *(Liquid Endothall)*

Map 2

Little Saint Germain Lake
Vilas County, Wisconsin

Preliminary 2014 AIS Treatment Strategy

Wisconsin Department of Natural Resources
Grant Project
Resolution

RESOLUTION OF Little Saint Germain Lake P&R District
Vilas County, Wisconsin

WHEREAS Little Saint Germain Lake, Vilas County, is an important resource used by the public for recreation and enjoyment of natural beauty; and

WHEREAS we recognize that a well-planned and holistic lake *and* aquatic invasive species management project will better the lake now and for future users, and

WHEREAS the control and prevention of aquatic invasive species are important to the health and well-being of the lake; and

WHEREAS we are qualified to carry out the responsibilities of the planning project

IT IS, THEREFORE, RESOLVED THAT:

The **Little Saint Germain Lake P&R District (LSGLPRD)** requests the funds and assistance available from the Wisconsin Department of Natural Resources under and

HEREBY AUTHORIZES **Cheryl Kelsey** to act on behalf of the **LSGLPRD** to: submit an application to the State of Wisconsin for financial aid for monitoring, planning and education purposes; sign documents; and take necessary action to undertake, direct, and complete an approved grant.

BE IT FURTHER RESOLVED THAT the **LSGLPRD** will meet the obligations of the planning project including timely publication of the results and meet the financial obligations under this grant including the prompt payment of our **50%** commitment to project costs.

We understand the importance of a continuing management program for **Little Saint Germain Lake** and intend to proceed on that course.

Adopted this _____ day of _____, 20____

By a vote of: _____ in favor _____ against _____ abstain

BY: _____
Dave O'Malley, District Chairman

Aquatic Invasive Species Control Grants **Established Population Control Ranking Questions** **36** Maximum Points	**Ranking Points**	**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	Streamlined WDNR CBCW Grant coordinated by Vilas County = 300 hrs annually
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	Boat Washing pull-over station has been created to allow proper AIS washing procedures are followed. Dan Jacoby of the NHAL coordinated this much needed enhancement
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	Volunteers have been trained in past by Onterra. This would be a coordinated program by Onterra with volunteers, association-owned GPS, and actions addressed within annual treatment report
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	got 1b	
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	4	Is greater than 500 acres and has adequate public access.
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 1b	
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 1b	
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 a restricted species, not a prohibited species
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 (plant) 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	0	
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 area or such an area owned/managed by a nonprofit conservation organization (e.g., Nature Conservancy).	1 point	1	high floristic quality (FQI=42.9) and large number of native species (N = 42, vasey's pondweed
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	EWM is below 1% LFOO
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	
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	Professional hand-harvesting along with herbicide treatments
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
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	1	Contains a very small water control structure, but wouldn't be considered an impoundment as only a small portion of its volume is caused by the dam. Upstream and downstream systems do not have EWM

Aquatic Invasive Species Control Grants **Established Population Control Ranking Questions** **36** Maximum Points	**Ranking Points**	**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 one access site with a total of more than 28 car-trailer parking spaces (1 per 35 open water 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	18 Resorts, two swimming beaches, 1 fishing pier, 1 ADA fishing pier
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 1point per action, provide documentation).			
Activity 1	1 point	1	Shoreland Habitat enhancement Protection Grant (M. Meyers project)
Activity 2	1 point	1	Worked w/ USGS, Barr Engineering, Foth & VanDyke to discover internal and external nutrient sources
Activity 3			Help increase disolved oxygen levels in East Bay using aeration system
Activity 4			Slow-no-wake zones marked with buoys to protect shorelines near constrictions between lake basins as well as near areas of high biodiveristy near islands in several of the lake basins
Activity 5			Beaver Control & Muskeullunge Creek Restoration Efforts
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 point)	1 point	0	
OR			
50% State Share (2 point)	2 points	2	Selects this lesser state share
2) The project has financial support from additional management units, interest groups or organizations committing > 10% of the **hard cash local match**.	1 point	??	Will be seeking assistance from Saint Germain Town Lakes Committee, but won't receive anything official until after Feb 1
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	2013 herbicide treatment was under an AIS Grant
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	This project is a continuation of a previously funded AIS Grant
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	Past & projected future participation within the USACE herbicide concentration monitoring project. Has third-party evaluation component.
		23	

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	4 / 7
The degree to which the project protects or improves the aquatic ecosystem's diversity, ecological stability or recreational uses.	C	1 / 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	4 / 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	2 / 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
		23 / 37

Vilas County Land & Water Conservation
330 Court Street • Eagle River, WI 5452
715-479-3747 • Fax: 715-479-19781 • http://www.vilasconservationr.org

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

January 29, 2014

Dear Mr. Gauthier:

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

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

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

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

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

Sincerely,

Ted Ritter

Vilas County Invasive Species Coordinator