WDNR Aquatic Invasive Species Control Grant Proposal

Established Population Control Projects

Lac Vieux Desert Aquatic Invasive Species Prevention and Control Project

Proposal Submitted To:

Wisconsin Department of Natural Resources

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Date: 1/31/2014

INTRODUCTION

This proposal seeks a Wisconsin Department of Natural Resources (WDNR) Aquatic Invasive Species Control Grant for Established Population Control Projects. The project period proposed is from 2014 to 2017. The Lac Vieux Desert Lake Association (LVDLA) is the sponsor and requesting a 50% State share. This proposal outlines an aquatic invasive species (AIS) control project that includes: annual monitoring and control of Eurasian watermilfoil (EWM), annual monitoring for curly leaf pondweed (CLP), strategies to prevent the introduction and spread of AIS to and from Lac Vieux Desert and activities that strengthen and promote lake stewardship. Aquatic invasive species known to occur in Lac Vieux Desert include: banded mystery snails, Chinese mystery snails, curly leaf pondweed, Eurasian watermillfoil, freshwater jellyfish, rusty crayfish and purple loosestrife (WDNR & Onterra, 2012).

The discovery of Eurasian watermilfoil in 2008 and the subsequent discovery of curly leaf pondweed in 2009 initiated efforts by the Lac Vieux Desert Lake Association (LVDLA) to support work to minimize the ecological and recreational impacts that these aquatic invasive species can have. In 2009, the LVDLA received a WDNR Aquatic Invasive Species Control Grant for Early Detection and Response to support efforts to control Eurasian watermilfoil. These monies funded efforts from 2009 to 2013. In addition, in 2009, the LVDLA began developing a comprehensive lake management plan for Lac Vieux Desert. This plan received WDNR approval in the fall of 2012.

Lac Vieux Desert supports a high degree of native biodiversity with 51 known aquatic native plant species and a calculated FQI of 43.8 (Onterra, 2012). Of the 17 miles of shoreline (excluding islands) a third is in public ownership by the USFS Ottawa and Chequamegon-Nicolet National Forests. Lac Vieux Desert is the site of an extensive wild rice restoration project by the Lac Vieux Desert Band of Superior Chippewa and supported in part by Circle of Flight, the USFS, Great Lakes Indian Fish and Wildlife Commission (GLIFWC) and USDA-NRCS (Midwest Region Accomplishment Report, 2013). Lac Vieux Desert's annual harvest of wild rice by the tribal community has been the highest of any Vilas County wild rice lake (David, 2010).

PROJECT AREA

Lac Vieux Desert, located in Vilas County, WI and Gogebic County, MI, is 4,247 acres and is the headwaters to the Wisconsin River (Onterra, 2012). Lac Vieux Desert is the largest lake in Vilas County and the second largest lake in Gogebic County, MI. Riparian ownership includes: USFS Ottawa National Forest, USFS Chequamegon-Nicolet National Forest, the Lac Vieux Desert Band of Lake Superior Chippewa, Michigan Department of Natural Resources (MDNR), WDNR, Wisconsin Valley Improvement Company and MI and WI riparians. Wisconsin Valley Improvement Company owns and operates a water level control structure at the outlet to the Wisconsin River.

The adjacent public lands and the vast open water vistas make Lac Vieux Desert a year round recreational attraction by locals and visitors alike. Five public access points allow for both boating and carry in access. These access points are owned and operated by the WDNR, MDNR, Wisconsin Valley Improvement, Lac Vieux Desert Band of Lake Superior Chippewa and the USFS Chequamegon-Nicolet National Forest. In addition, the USFS Chequamegon-Nicolet National Forest operates a campground with 31 campsites and a picnic and beach area. Wisconsin Valley Improvement Company has a park located at the headwaters of the Wisconsin River. In addition to public access, there is a private campground and six private resorts on Lac Vieux Desert.

Several fishing tournaments are held on Lac Vieux Desert annually and include: Promack-Wisconsin Musky Tour, Swen's Fishing Tournament, Hank's Fishing Tournament, Midwest Musky Classic, Phelp's Lions Club Ice Fishing Tournament and the Land O' Lakes Kid's Ice Fishing Tournament. Annually, these tournaments alone draw approximately 700 participants (personal com).

PROBLEM STATEMENT

There are ecological, recreational and culturally diverse interests associated with not only the variety of riparian ownership on Lac Vieux Desert, but also the surrounding community. Planning and management strategies involving multiple stakeholders and agencies need to be adaptive and transparent. Strategies adopted should facilitate a communal approach, underpinned in the intrinsic values and mission statements of the groups involved. Given the multiplicity of ownership, a collaborate effort diversifying resources necessary to meet the project goals and objectives is sought.

In 2012, a stakeholder partnership formally merged with the impetus to address EWM on Lac Vieux Desert. This partnership currently includes: the Invasive Species Control Coalition of Watersmeet (ISCCW), USFS Ottawa National Forest, GLIFWC, LVDLA, WDNR and the Lac Vieux Desert Band of Lake Superior Chippewa (See Supplemental Information). This collaboration seeks to facilitate resource sharing and input on aquatic invasive prevention and control strategies. Through dialog, a major concern addressed by stakeholders is non-target impacts that herbicides commonly used to manage AIS may have to wild rice (*Zizania palustris*). At this time, there is a mutual understanding that to provide added protection to wild rice, the management of aquatic invasive species on Lac Vieux Desert will not include the use of aquatic herbicides. The chosen strategy discussed and agreed upon by stakeholders is to manage EWM on Lac Vieux Desert with hand removal. This strategy is selective at removing the target species, consistent with management options detailed in the Lac Vieux Desert lake management plan, supported by the lake management plan stakeholder survey results (42%), and addresses concerns pertaining to the use of herbicides and non-target impacts to wild rice. At this time, hand removal efforts have and will continue to consist of the use of divers alone and Diver Assisted Suction Harvesting (DASH).

History of Management

The threshold defined by WDNR Aquatic Plant Treatment Evaluations that use a quantitative sampling design to evaluate aquatic plant response to manipulation/management has not been reached in Lac Vieux Desert to date. Monitoring and evaluation efforts to date are consistent with the Wisconsin's Rapid Response Framework for Aquatic Invasive Species (2012) and include qualitative survey methods that document the distribution and density of both CLP and EWM.

2008-2009

The initial discover of Eurasian watermilfoil in Lac Vieux Desert occurred near the Thunder Bay boat landing in 2008 and consisted of approximately seven locations of single to small clusters of plants. By 2009, several small yet contiguous colonies of EWM were identified in two areas and treated with herbicides. A treatment of 1.8 acres occurred in early summer, using granular 2,4-D at an application rate of 150 lbs./acre, which is the equivalent of 2.10 ppm (ae) based on an average depth of 5 feet (Onterra, 2012).

2010

Four locations of EWM were relocated within the 2009 treatment areas. Each of these locations consisted of a few individual plants and were hand removed. Lake wide monitoring efforts in May did not locate any additional occurrences of EWM or CLP on Lac Vieux Desert (Onterra, 2012).

2011

In September of 2011, three new EWM locations consisting of one plant each were located in a region of Lac Vieux Desert referred to as Slaughter Bay. These locations were hand removed by the USFS on September 26th 2011. Conditions during removal efforts were poor, with blowing wind and sleet. USFS botanist Ian Shackleford and John Pagel were able to re-locate and hand pull two of the three locations with somewhat success reported. The depth and weather conditions made hand removal that day difficult.

2012

By 2012, EWM expanded from its previously known locations within Thunder Bay and Slaughter Bay to several sites along Simpson's Point and into Rice Bay. On October 12th 2012, 33 locations of EWM were identified: 28 locations of single to few plants, 3 patchy locations, 1 20'x20' moderate dense colony and one 0.19 acre colony consisting of scattered plants (Onterra, 2012). During the summer months, EWM identified prior to the October survey was hand removed by the USFS Ottawa National Forest and the Lac Vieux Desert tribal youth program, 18 plants in total were removed.

Until 2012, no additional locations of CLP had been identified. The only occurrence of CLP known up to this time occurred during a point intercept survey completed by the WDNR in 2009. In 2012, CLP was identified at 12 locations. Eleven of these locations consisted of individual plants to small colonies, where as one location in Outlet Bay was a contiguous bed of 1.1 acres.

2013

In 2013, 143 locations of EWM were identified, all of these locations consisted of low to moderate dense EWM ranging from 5 to 30 plants at each site encompassing on average 40-foot diameter are or less. Of these 143 sites, two contiguous beds of EWM were delineated, one consisted of moderate EWM (~ 150-200 plants) at 0.47 acres, and one bed consisted of moderate to dense (75% EWM coverage) EWM at 0.15 acres. Curly leaf pondweed was found at six locations, three sites consisted of 1-10 plants; one site consisted of 50-100 plants and two small colonies measured at 0.18 and 0.07 acres.

Up until 2013, the only control efforts that took place on Lac Vieux Desert included the initial herbicide treatment and hand removal efforts by the USFS and the Lac Vieux Desert tribal youth program. Remaining WDNR Early Detection and Response monies were used to control EWM. All known EWM location had at a minimum one site visit, either using DASH or hand removal alone. Many sites, 2-3 return visits occurred.

Hand removal efforts totaled 119 dive hours and removed roughly 1,214 EWM plants weighing 1,016 pounds. DASH efforts included six sites in both Michigan and Wisconsin (MI Permit No. 13-27-0012-P and WI Permit # 1631900-13). In 17 hours of dive time a total of 1,033.5 pounds of EWM was removed.

An end of the year evaluation assessed hand removal and DASH sites. Eurasian watermilfoil is still present at and near several of the hand removal/DASH sites, however, all sites with the exception of a few are at lower densities prior to control efforts. A total of 70 EWM locations were documented at or in very close proximity to each managed site. Of these sites, 44 sites, only one plant was observed, at 21 sites, 2-8 plants were observed and at five sites, 10 to 20 plants were observed.

To improve the likelihood of long-term control, this project seeks to provide enough resources to continue management efforts at a similar level seen in 2013. This includes targeting all known locations of EWM with either hand removal or DASH, continued surveillance of these areas and continued management (follow up visits) as necessary.

The density and distribution of CLP in 2013 is less than what was documented in 2012. This is not to say, this species will continue to act in a non-nuisance level, nor will we be able to predict where and in what densities CLP may appear in Lac Vieux Desert in the future. This project will focus primarily on managing EWM, however will include continued annual monitoring of curly leaf pondweed to track whether the distribution of this species is expanding.

PROJECT GOALS AND OBJECTIVES

(1) Minimize negative impacts that aquatic invasive species can have to the ecological, recreational and culturally resources of Lac Vieux Desert.

Objective (1) Monitor Lac Vieux Desert for Eurasian watermilfoil and curly leaf pondweed.

Objective (2) Monitor and map the distribution of wild rice in Lac Vieux Desert.

Objective (3) Manage Eurasian watermilfoil with hand removal.

Objective (4) Evaluate management efforts.

Objective (5) Continue efforts that prevent the spread of AIS into (and out of) Lac Vieux Desert.

(2) Promote lake wide stewardship.

Objective (6) Support activities that protect ecosystem diversity and ecological stability.

Objective (7) Support activities that improves water quality and restores native plants to shorelands.

(3) Encourage outreach and support from additional management units, interest groups, and organizations.

Objective (8) Facilitate information and resource sharing amongst current stakeholders and seek continued partnerships and community support.

<u>Monitoring and Evaluation</u>

Each season, two lake-wide meander type surveys are scheduled for Lac Vieux Desert. For a meander search to be effective, relatively low wind and no precipitation is required because visual identification is the primary method used. In addition to visual identification, aqua scopes, underwater cameras and rake tosses are used. The location, extent, and estimated density of EWM and CLP is documented. Smaller sites will be geo-referenced with a GPS point. These sites are typically less than 40 foot in diameter. Larger sites will be circumvented and extent in acres is calculated. (The distribution of EWM in Lac Vieux Desert at this time does not qualify for quantitative evaluation metrics as defined by WDNR Aquatic Plant Treatment Evaluations.)

The first survey is timed to coincide with the early season phenology of CLP in addition to targeting EWM. The second survey is timed for mid to late summer, when EWM is most easily visible. At the end of the season, once all hand removal activities are completed, each managed site (hand removal and DASH) is assessed to determine effectiveness of management.

In 2013, the ISCCW and GLIFWC collaborated to complete the early season survey on Lac Vieux Desert. Both organizations have pledged support to continue early season surveying efforts. In 2013, the second mid-late season survey was completed by outside consultants and the intent at this time, is to continue to have this survey completed by outside consultants.

Direct impacts that AIS can potentially have on wild rice in Lac Vieux Desert is unknown. Eurasian watermilfoil can affect and displace aquatic native plant communities and wild rice would be no exception to this (Madsen, 1991). Both EWM and CLP have been documented in areas adjacent to the established wild rice beds. Efforts that continue to map the distribution of wild rice annually and add additional surveillance to immediate areas adjacent to the wild rice AIS will help us better understand if AIS impact wild rice. This survey will not only monitor the distribution of wild rice on Lac Vieux Desert but also detect any new occurrences' of AIS that is in close proximity to the wild rice. Last year, GLIFWC lead these efforts and found the closest known EWM location to wild rice located in Rice Bay.

Management-Control

As stated above, with input from the stakeholders, hand removal is the chosen control strategy for EWM on Lac Vieux Desert. This control strategy will employ multiples techniques including the use of snorkel/dive gear and DASH. To determine whether a site is controlled using hand removal alone versus DASH, several factors are considered. DASH improves the efficiency of hand removal at locations when multiple large to very large EWM plants exist (especially later in the season) and when larger continuous beds of EWM exist. Hand removal is preferred when locations consist of individual to low density EWM and when the set up, break down and relocation time is more effort than the actual time using DASH.

Hand removal and DASH efforts will commence once the early season survey is completed or when enough locations of EWM have been identified to commence efforts. Removal efforts will likely begin in June and continue through the beginning of October, depending on weather. Spreading efforts out throughout the entire season will improve the likelihood of long-term control. Spreading efforts throughout the entire season allows flexibility to address any new locations, allows re-visits to problematic areas and also improve the likelihood to visit each known identified location at least once. Any DASH efforts will require a WDNR Mechanical Harvesting Permit in Wisconsin and a joint permit from the Michigan Department of Environmental Quality (MDEQ) and the U.S. Army Corps of Engineers (USACE). Hand removal

alone (without DASH) also requires a MDEQ/USACE joint permit and written permission from adjacent riparian owners.

The USFS Ottawa National Forest invasive species program has assisted in hand removing EWM from Lac Vieux Desert since 2010. In 2013, locations, identified in the spring survey from the ISCCW and GLIFWC were provided to the USFS, and their weed crew with the volunteer assistance of LVDLA spent a whole day pulling EWM from those locations. The USFS Ottawa National Forest has pledge to continue these efforts from 2014-2017.

AIS Prevention

Lac Vieux Desert has a Clean Boats Clean Waters (CBCW) watercraft inspection program. The LVDLA sponsors a WDNR CBCW grant and contracts with the ISCCW who hires and oversees the watercraft inspector. In addition to watercraft inspection efforts, the ISCCW staffs the two most frequented boat landings (Misery Bay, MI & Thunder Bay, WI) on Lac Vieux Desert with portable boat washing stations. There is the option for boaters to have their boats wash prior to entering and leaving Lac Vieux Desert. These boat-washing efforts in 2013 washed 819 boats at the WDNR-Thunder Bay Launch alone.

Monitoring the entire littoral zone of Lac Vieux Desert is not a small undertaking. Lac Vieux Desert is shallow water lake with a maximum depth of 40 feet and supports aquatic vegetation to 19 feet. Based on a WDNR point intercept survey, approximately 91% of sampling sites can support aquatic vegetation (Onterra, 2012). Translating 91% to an approximate acreage, over 3,800 acres of Lac Vieux Desert can potentially support aquatic vegetation. Using the information collected during the open water-surveying season, the LVDLA is prepared to develop a volunteer lead surveillance/monitoring program to fill in any information gaps. Entities outlined in the lake management plan that could provide training include Vilas County Land and Water Conservation District, UW Extension and the ISCCW Lakeguards. Wisconsin Department of Natural Resource protocols will be upheld and information collected will be reported in SWIMS. The anticipated number of volunteer hours on Lac Vieux Desert will average 100 hours annually over the course of the project.

Lake Stewardship

Land use comprising ninety-nine percent of Lac Vieux Desert's watershed includes, forests, wetlands and the surface water of Lac Vieux Desert. This leaves actions that protect and improve Lac Vieux Desert's ecosystem limited to targeting the immediate developed shoreland areas (Onterra, 2012). To protect and improve Lac Vieux Desert's ecosystem, the LVDLA will look to its member to implement three actions. These actions include a riparian pledge not to use phosphorus, a riparian pledge not to remove aquatic vegetation below the ordinary high

water mark and encourage the use of native vegetation along the shoreland above the ordinary high water mark.

The LVDLA will initiate these efforts through an association wide mailing. The purpose of this mailing is threefold. One, the mailing will be educational, relaying the importance of how nutrient abatement, shoreline protection and restoration protects Lac Vieux Desert's ecosystem. Two, the mailing will contain a form and ask for a volunteer pledge not use lawn fertilizers that contain phosphorous and also a pledge not to remove rooted aquatic native vegetation below the ordinary high water mark. (Note: There is no Michigan counterpart to Wisconsin Act 9, all actions are voluntary.) All pledges will need to be signed and returned back to the association. The goal of this effort is to have 50 signed pledges by the first year, 75 total signed pledges by the second year, 100 total signed pledges by the third year and 125 total signed pledges by the fourth year.

The final purpose of the mailing will be to inform association member of a monetary match for planting native vegetation, with the primary intent to provided added protection to existing native vegetation, minimize erosion, establishing and/or improve existing shoreland buffers. The LVDLA is willing to provide $250.00 (annually) as a match towards these efforts. Property owner that are willing to spend a minimum of $100.00 towards the purchase of native vegetation will receive an additional $50.00 towards those purchases. Property owners that are willing to purchase $250.00 of native vegetation may receive the entire annual match of $250.00. The larger match is designed to target shorelands where obvious erosion is occurring and where there has been significant native vegetation loss. Again, the financial match that the LVDLA is able to provide annually is $250.00 and will be on a first come first serve basis. Vegetation must be native to Wisconsin (provenance may not be guaranteed) and planting recommendations will include the Vilas County Land and Water Conservation Department recommended species lists. Updates to these efforts will be made known to association member through the bi-annual LVDLA new letter.

PROJECT TASKS AND ACTIVITIES (To be repeated annually)

Objective (1) Monitor Lac Vieux Desert for Eurasian watermilfoil and curly leaf pondweed.

Task 1A: Conduct an early summer whole lake survey for EWM and CLP. (Information is incorporated into a GIS database system.)

Task 1B: Conduct a mid-late summer whole lake survey for EWM. (Information is incorporated into a GIS database system.)

Task 1C: Monitor adjacent waters to the wild rice beds for aquatic invasive species. (Information is incorporated into a GIS database system.)

Objective (2) Monitor and map the distribution of wild rice in Lac Vieux Desert.

Task 2A: Delineate wild rice beds. (Information is incorporated into a GIS database system.)

Objective (3) Manage Eurasian watermilfoil with hand removal techniques.

Task 3A: Manage EWM by using snorkel/divers to hand remove plants (Lumberjack and Golden Sands RC & D Councils, 2012). Daily logs document all snorkel/diver efforts including time/efforts spent, location information, and wet weights of material harvested.

Task 3B: Per specific permit requirements, manage EWM with DASH. Daily logs document all DASH efforts including time/efforts spent, location information and non-target impacts including wet weights of invasive species versus native species and a list of all non-target native species identified.

Objective (4) Evaluate management efforts.

Task 4A: Revisit all managed sites and assess effectiveness of control efforts. (Information is incorporated into a GIS database system.)

Objective (5) Promote strategies that prevent the spread of AIS into (and out of) Lac Vieux Desert.

Task 5A: Continue CBCW watercraft inspections.

Task 5B: Continue portable boat washing stations efforts.

Task 5C: Use volunteers to monitoring Lac Vieux Desert for AIS. (Information collected will be submitted to SWIMS.)

Objective (6) Support activities that protects ecosystem diversity and ecological stability.

Task 6A: Provide added protection to native aquatic plant species by requesting a volunteer pledge by association members not to remove rooted aquatic vegetation below the ordinary high water mark.

Objective (7) Support activities that improves water quality and restores native plant to shorelands.

Task 7A: Promote native vegetation along shorelands by providing a cost share opportunity to purchase native plant material.

Task 7B: Request a volunteer pledge by association members not to use fertilizer that contains phosphorous as a means to control nutrients entering into Lac Vieux Desert.

Objective (8) Facilitate information and resource sharing amongst current stakeholders and seek continued partnerships and community support.

Task 8A: Hold annual wrap up meetings to inform stakeholders of project results.

Task 8B: Use local media outlets to inform the community of project activities and highlights.

Task 8C: Appoint LVDLA members to be a liason's between the LVDLA and identified stakeholders.

PROJECT DELIVERABLES

Annual reports produced will synthesize all the information as itemized under the tasks above. Report will include consolidated maps of all stakeholders/partners findings, result summaries of hand removal and DASH efforts and maps overlaying AIS locations and surveyed wild rice beds.

TIMETABLE

Schedule of tasks, to be repeated annually.

	A (2014)	M	J	J	A	S	O	N	D	J (2015)	F
Task 1A											
Task 1B											
Task 1C											
Task 2A											
Task 3A											
Task 3B											
Task 4A											
Task 5A											
Task 5B											
Task 5C											
Task 6A											
Task 7A											
Task 8A											
Task 8B											
Task 8C											

Field tasks are tentative and may need to be adjusted annually due to weather.

PROJECT RESPONSIBILITIES

	ISCCW	USFS-Ottawa National Forest	LVDLA	GLIFWC	Many Waters
Task 1A					
Task 1B					
Task 1C					
Task 2A					
Task 3A					
Task 3B					
Task 4A					
Task 5A					
Task 5B					
Task 5C					
Task 6A					
Task 7A					
Task 8A					
Task 8B					
Task 8C					

PROPOSED BUDGET

	2014		2015		2016		2017	
	Cash Value	**Donated Value**	**Cash Value**	**Donated Value**	**Cash Value**	**Donated Value**	**Cash Value**	**Donated Value**
Early Season AIS Survey		$1,634.40		$1,634.40		$1,634.40		$1,634.40
Early Season AIS Survey/Wild Rice Mapping		$2,118.00		$2,118.00*		$2,118.00*		$2,118.00*
Mid-Late Summer Survey	$4,500.00		$4,500.00		$4,500.00		$4,500.00	
End of Year Evaluation	$900.00		$900.00		$900.00		$900.00	
Hand Removal ~10 days (Average 6 hrs/day diving @ $50 per person with 2 people diving) $50 boat usage/day $34.74 travel/trip $75 air/day $759.54 average per day	$7,000.00		$7,000.00		$7,000.00		$7,000.00	
DASH ~ 8 days Average 6 hr/day @ $150/hr) $40.30 travel/trip $75 air/day $1,015.30 average per day	$8,000.00		$8,000.00		$8,000.00		$8,000.00	
USFS Hand Removal		$773.49		$773.49		$773.49		$773.49
LVDLA Volunteer Assistance-Hand Removal Efforts (2 people/8 hrs)		$192.00		$192.00		$192.00		$192.00
WDNR Mechanical Harvesting Permit	$300.00 Max		$300.00 Max		$300.00 Max		$300.00 Max	
Final Reporting & Permit Application Preparation	$800.00		$800.00		$800.00		$800.00	
Project Administration-Volunteer (10 hrs)		$120.00		$120.00		$120.00		$120.00
End of the Year Meeting (13 people/3 hrs)		$468.00		$468.00		$468.00		$468.00
CBCW Inspection	Separate WDNR Grant		Separate WDNR Grant		Separate WDNR Grant		Separate WDNR Grant	
ISCCW Boat Washing Program 819 boat washes @ 10 min/wash = 136.50 hrs (DOT Rate $41.10/hr)		$5,610.15		$5,610.15		$5,610.15		$5,610.15
ISCCW Boat Washing Staff (136.50hrs @ 12.50/hr)		$1,706.25		$1,706.25		$1,706.25		$1,706.25
LVDLA Volunteer Monitoring (100 hrs)		$1,200.00		$1,200.00		$1,200.00		$1,200.00
Totals Annually	**$21,500.00**	**$13,822.29**	**$21,500.00**	**$13,822.29**	**$21,500.00**	**$13,822.29**	**$21,500.00**	**$13,822.29**
Total Project Cost-Annually	**$35,322.29**		**$35,322.29**		**$35,322.29**		**$35,322.29**	

* Contingent on continued funding

SUPLIMENTAL INFORMATION

ISCCW (Invasive Species Control Coalition of Watersmeet, MI) www.lakeuards.org

The ISCCW is a not for profit organization that is dedicated to the prevention of aquatic invasive species within the Watersmeet Township. Their approach includes education, monitoring and provides financial resources to lakes within the township that are managing for aquatic invasive species, primarily Eurasian watermilfoil. The ISCCW operates four portable boat washers that travel to lakes within the township. Annual operating cost for the ISCCW is based on seeking and receiving funding through grant, annual membership collection and donations. **The ISCCW has committed a 10% hard cash match to the local cost share of this project.**

USFS Ottawa National Forest

The USFS Ottawa National Forest is the primary landowner on Lac Vieux Desert in Michigan. The Ottawa National Forest invasive species program has assisted in hand removal efforts of EWM on Lac Vieux Desert since 2011. In the past, the Ottawa National Forest, the Lac Vieux Desert Band youth program and the USFS Chequamegon-Nicolet National Forest has jointly assisted in hand removal efforts. The USFS Ottawa National Forest has pledge continued support by assisting in hand removal efforts.

Great Lakes Indian Fish and Wildlife Commission (GLIFWC)

"GLIFWC provides natural resource management expertise, conservation enforcement, legal and policy analysis, and public information services in support of the exercise of treaty rights during well-regulated, off-reservation seasons throughout the treaty ceded territories." As part of their AIS program, GLIFWC is monitoring for AIS on water bodies that have significant traditional resources values to tribal communities. GLIFWC has committed a donated value to the project for 2014. The intent is to continue this support, however, this decision will have to be made annually and is based on monies available.

Lac Vieux Desert Band of Lake Superior Chippewa

The Lac Vieux Desert Band of Lake Superior Chippewa originally lived on the "South Island" of Lac Vieux Desert and around 1880 moved to the south shore. The Lac Vieux Desert Band has been involved in a wild rice restoration project that reestablished wild rice to Lac Vieux Desert. Tribal offices are located in Watersmeet, MI. The conservation and cultural committee is working with the ISCCW to pilot a youth core program that would include tribal and non-tribal youth to learn about aquatic invasive species including identification, monitoring and prevention. This program is in its infancy stages, however, one aim of this program is to build in an AIS monitoring component lead by youth on Lac Vieux Desert.

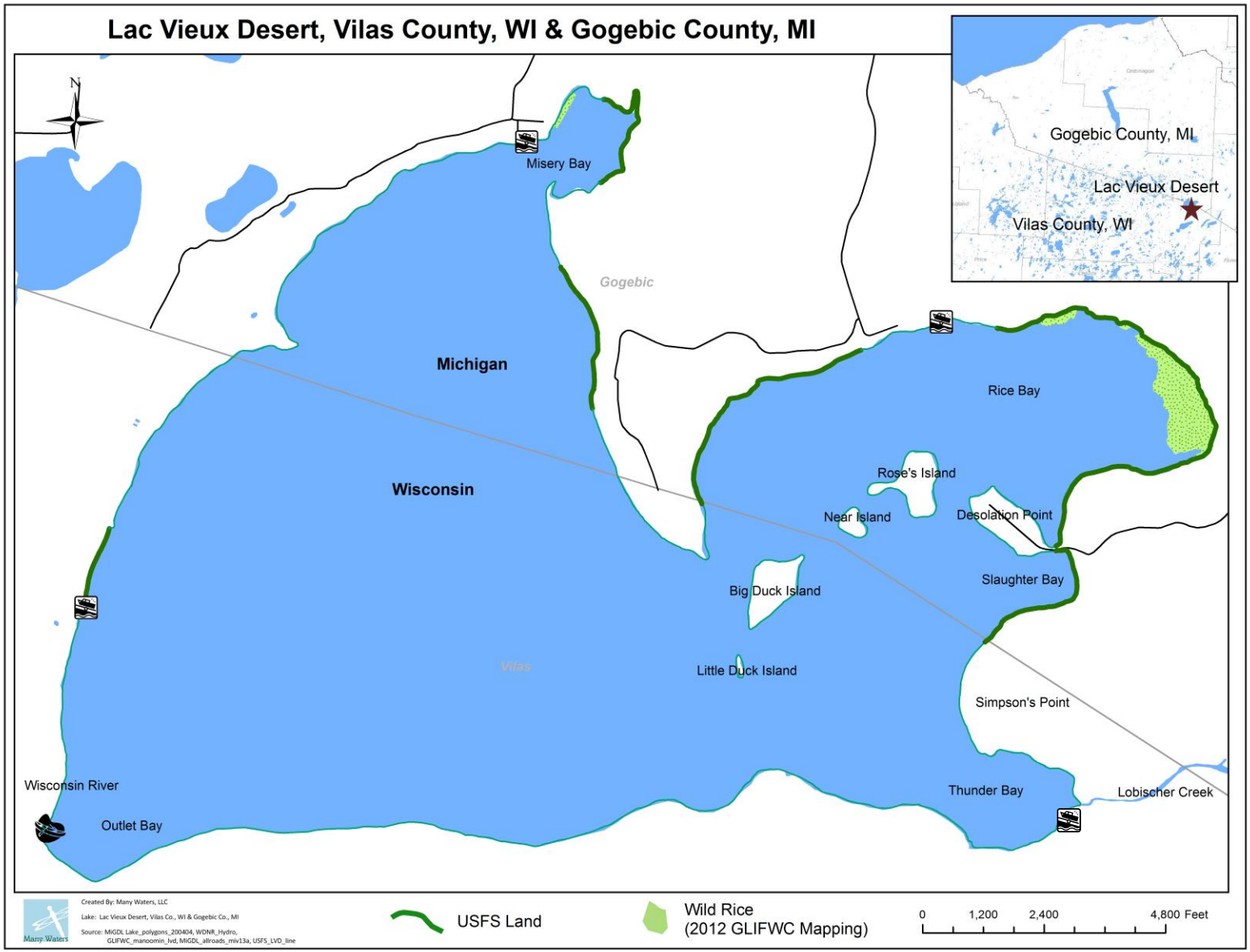
David, P. F. 2010. Wild Rice (Manoomin) Abundance and Harvest in Northern Wisconsin in 2009. Administrative Report 10-04. Great Lakes Indian Fish and Wildlife Commission-Biological Services Division.

Lumberjack Resources Conservation & Development Council, Inc. & Golden Sands Resource Conservation & Development Council, Inc., 2012. Eurasian Water Milfoil Manual Removal. http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5373240.pdf

Madsen, J.D., Sutherland, J.W., Bloomfield, J.A., Eichler, W., and Boylen, C.W. 1991. The Decline of Native Vegetation Under Dense Eurasian Watermilfoil Canopies. Journal of Aquatic Plant Management 29: 94-99.

Midwest Region, 2013. Tribal Habitat Restoration and Invasive Species Control-accomplishment report.

Onterra, 2012. Lac Vieux Desert Lake, Vilas County Wisconsin and Gogebic County, MI Comprehensive Management Plan. Lac Vieux Desert Lake Association WDNR Grant Program: LPL-1281-09 & LPL-1282-09


Lac Vieux Desert, Vilas County, WI & Gogebic County, MI
N
Misery Bay
Gogebic
Michigan
Wisconsin
Vilas
Rice Bay
Rose's Island
Near Island
Desolation Point
Slaughter Bay
Big Duck Island
Little Duck Island
Simpson's Point
Thunder Bay
Lobiscker Creek
Wisconsin River
Outlet Bay
Gogebic County, MI
Lac Vieux Desert
Vilas County, WI
Created By: Many Waters, LLC
Lake: Lac Vieux Desert, Vilas Co., WI & Gogebic Co., MI
Source: MiGDL Lake_polygons_200404, WDNR_Hydro, GLIFWC_manoomin_lvd, MiGDL_allroads_miv13a, USFS_LVD_line
Many Waters
USFS Land
Wild Rice
(2012 GLIFWC Mapping)
0
1,200
2,400
4,800 Feet