A

APPENDIX A

Public Participation Materials

Presentation Outline

- **Lake Management Planning Project Overview**
- **Study Results**
  - Water Quality
  - Watershed
  - Shoreland
  - Fishery
  - Aquatic Plants
  - AIS (Eurasian Water Milfoil)
- **"Big Picture"**

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Study and Plan Goals

- Collect & Analyze Data
- Construct Long-Term & Useable Plan

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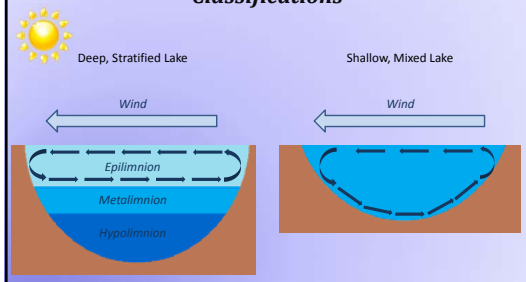
Wisconsin Lakes Natural Community Classifications



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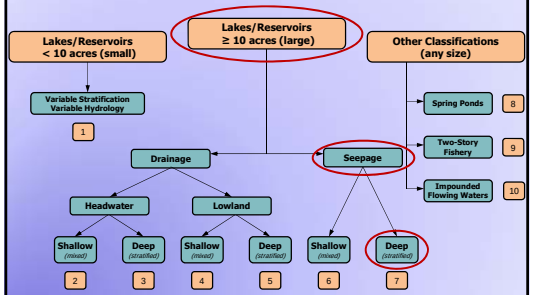
Wisconsin Lakes Natural Community Types



Wisconsin Ecoregions

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Water Quality

Phosphorus (Limiting Plant Nutrient)

Lake is P limited (N:P = 25:1)

Chlorophyll-*a* (Algal Abundance)

Low abundance

Water Clarity (Secchi Disk)

Good-Excellent water clarity

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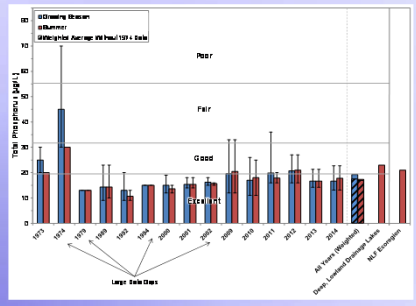
Big Sand Lake Average Annual Total Phosphorus



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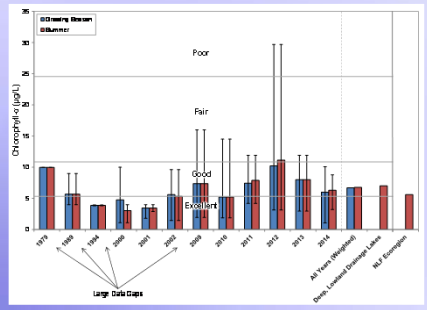
Big Sand Lake Average Annual Chlorophyll-α



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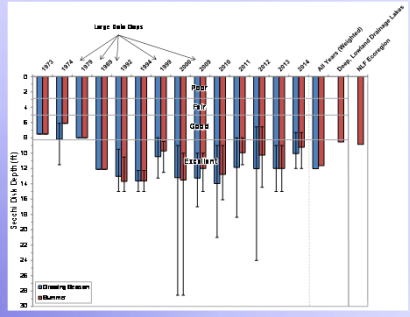
Big Sand Lake Average Annual Secchi Disk Clarity



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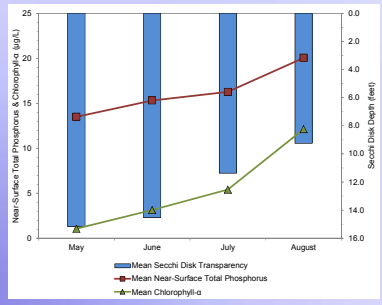
Big Sand Lake 2014 WQ Data by Month



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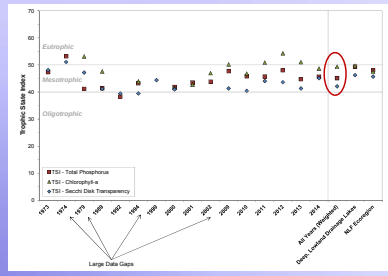
Big Sand Lake Trophic State Index



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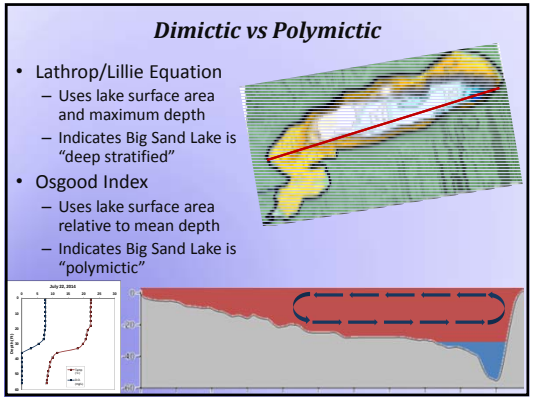
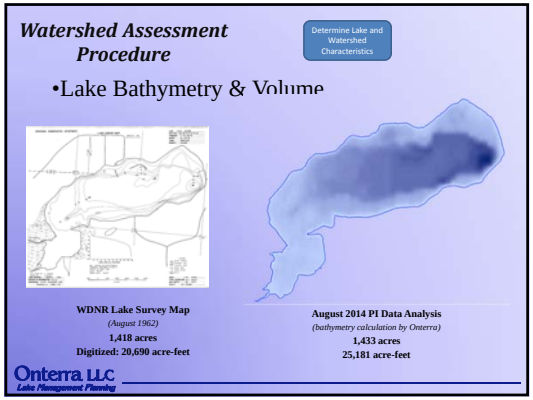

Dimictic vs Polymictic
• Lathrop/Lillie Equation
– Uses lake surface area and maximum depth
– Indicates Big Sand Lake is "deep stratified"
• Osgood Index
– Uses lake surface area relative to mean depth
– Indicates Big Sand Lake is "polymictic"


Watershed Assessment Procedure
Determine Lake and Watershed Characteristics
•Lake Bathymetry & Volume
WDNR Lake Survey Map
(August 1962)
1,418 acres
Digitized: 20,690 acre-feet
August 2014 PI Data Analysis
(bathymetry calculation by Onterra)
1,433 acres
25,181 acre-feet
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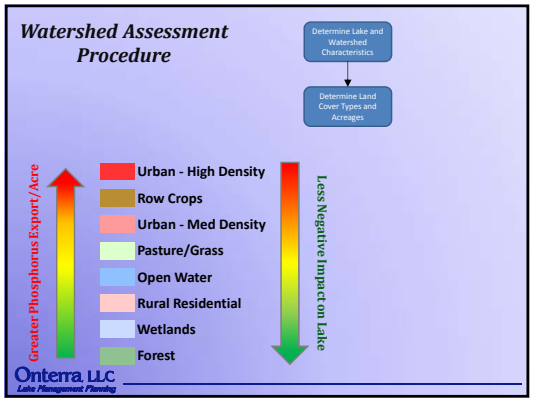
Watershed
Big Sand Lake Watershed
5,893 acres
WS:LA = 3:1
Residence Time: 3.3 yrs
Smoky WS: 1,686 Acres (29%)
Direct WS: 4,207 Acres (71%)


Watershed Assessment Procedure
Determine Lake and Watershed Characteristics
Determine Land Cover Types and Acreages
Greater Phosphorus Export/Acre
Less Negative Impact on Lake
Urban - High Density
Row Crops
Urban - Med Density
Pasture/Grass
Open Water
Rural Residential
Wetlands
Forest
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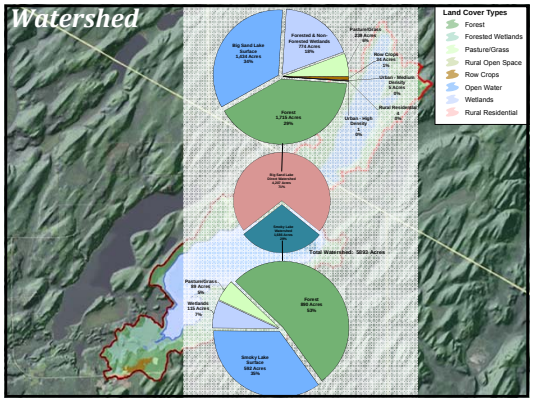
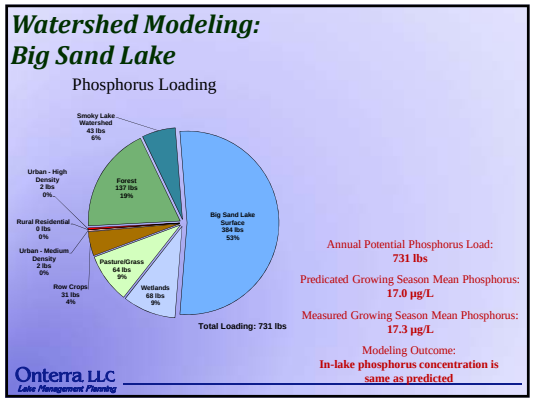

Watershed
Land Cover Types
Forest
Forested Wetlands
Pasture/Grass
Rural Open Space
Row Crops
Open Water
Wetlands
Rural Residential


Watershed Modeling:
Big Sand Lake
Phosphorus Loading
Total Loading: 731 lbs
Annual Potential Phosphorus Load:
731 lbs
Predicated Growing Season Mean Phosphorus:
17.0 µg/L
Measured Growing Season Mean Phosphorus:
17.3 µg/L
Modeling Outcome:
In-lake phosphorus concentration is same as predicted
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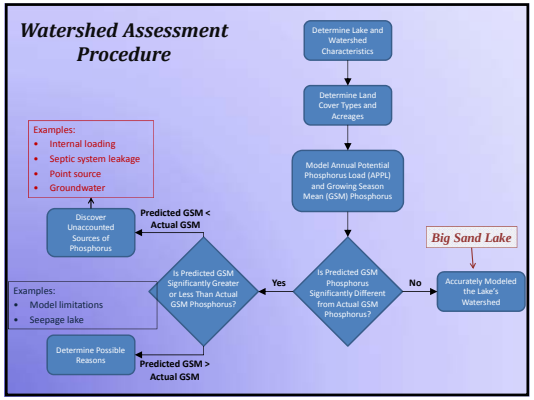
Watershed Assessment Procedure
Determine Lake and Watershed Characteristics
Determine Land Cover Types and Acreages
Model Annual Potential Phosphorus Load (APPL) and Growing Season Mean (GSM) Phosphorus
Is Predicted GSM Phosphorus Significantly Different from Actual GSM Phosphorus?
Yes
No
Big Sand Lake
Accurately Modeled the Lake's Watershed
Examples:
Internal loading
Septic system leakage
Point source
Groundwater
Discover Unaccounted Sources of Phosphorus
Predicted GSM < Actual GSM
Examples:
Model limitations
Seepage lake
Is Predicted GSM Significantly Greater or Less Than Actual GSM Phosphorus?
Determine Possible Reasons
Predicted GSM > Actual GSM


Shoreland Assessment
Shoreland area is important for buffering runoff and provides valuable habitat for aquatic and terrestrial wildlife.
It does not look at lake shoreline on a property-by-property basis.
Assessment ranks shoreland area from shoreline back 35 feet
Urbanized
Natural
Range
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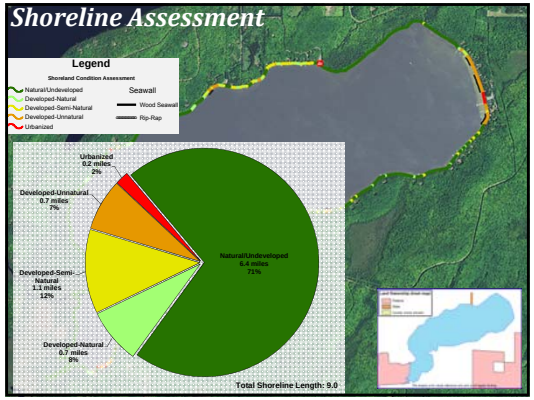
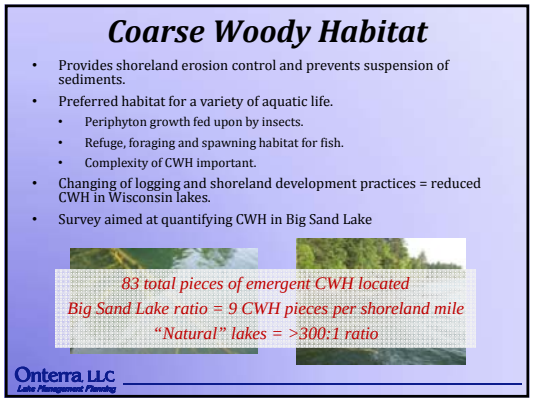

Shoreline Assessment
Legend
Shoreland Condition Assessment
Natural/Undeveloped
Developed-Natural
Developed-Semi-Natural
Developed-Unnatural
Urbanized
Seawall
Wood Seawall
Rip-Rap
Urbanized 0.2 miles 2%
Developed-Unnatural 0.7 miles 7%
Developed-Semi-Natural 1.1 miles 12%
Developed-Natural 0.7 miles 9%
Natural/Undeveloped 6.4 miles 71%
Total Shoreline Length: 9.0


Coarse Woody Habitat
Provides shoreland erosion control and prevents suspension of sediments.
Preferred habitat for a variety of aquatic life.
Periphyton growth fed upon by insects.
Refuge, foraging and spawning habitat for fish.
Complexity of CWH important.
Changing of logging and shoreland development practices = reduced CWH in Wisconsin lakes.
Survey aimed at quantifying CWH in Big Sand Lake
83 total pieces of emergent CWH located
Big Sand Lake ratio = 9 CWH pieces per shoreland mile
"Natural" lakes = >300:1 ratio
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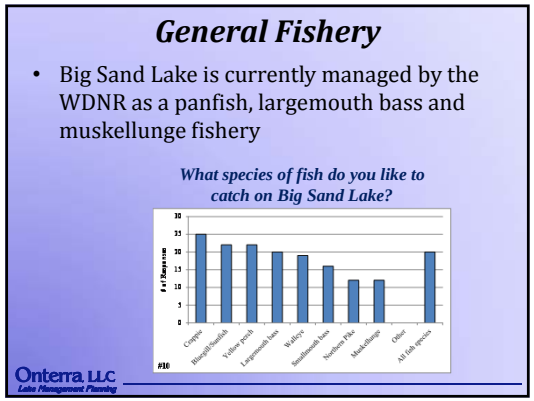
Fisheries


General Fishery
Big Sand Lake is currently managed by the WDNR as a panfish, largemouth bass and muskellunge fishery
What species of fish do you like to catch on Big Sand Lake?
Crappie
Bluegill/Sunfish
Yellow perch
Largemouth bass
Walleye
Smallmouth bass
Northern Pike
Muskellunge
Other
All fish species
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Muskellunge Fishery

- Minimal natural recruitment
- WDNR stocking again in 2015 at 0.25 fish/acre
- Managed as trophy fishery, primarily catch-and-release
- Minimal tribal open-water spearing

Year	Species	Age Class	# Stocked	Avg. Length (inches)
1974	Muskellunge	Fingerling	1,500	7
1977	Muskellunge	Fingerling	2,777	7
1984	Muskellunge	Fingerling	1,500	11
1985	Muskellunge	Fingerling	1,000	12
1990	Muskellunge	Fingerling	1,400	11
1991	Muskellunge	Fingerling	560	11
1992	Muskellunge	Fingerling	700	11
1993	Muskellunge	Fingerling	700	10
1996	Muskellunge	Fingerling	1,400	10.7
1998	Muskellunge	Large fingerling	1,400	12.3
2000	Muskellunge	Large fingerling	1,400	9.9
2013	Muskellunge	Large fingerling	352	9.2

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Walleye Fishery

- Minimal natural recruitment
- WDNR ceased stocking in 2005
- Consumptive fishery
- 2012 study showed adult walleye population to be 953 fish (0.7 fish per acre)
- Some tribal open-water spear harvest

Year	Species	Age Class	# Stocked	Avg. Length (inches)
1976	Walleye	Fingerling	13,500	3
1976	Walleye	Fingerling	15,000	3
1985	Walleye	Fingerling	72,380	2.33
1987	Walleye	Fingerling	210,000	2
1989	Walleye	Fingerling	90,075	2.33
1991	Walleye	Fingerling	35,152	2.2
1992	Walleye	Fry	37,284	2
1994	Walleye	Fry	400,000	0.2
1995	Walleye	Fingerling	70,944	2.38
1999	Walleye	Small fingerling	70,021	1.7
2001	Walleye	Small fingerling	70,044	1.85
2003	Walleye	Small fingerling	70,902	1.6
2005	Walleye	Small fingerling	35,200	1.6
2012	Walleye	6-7 inches	1,350	n/a
2013	Walleye	6-7 inches	2,750	n/a
2014	Walleye	6-7 inches	3,000	n/a

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Panfish Fishery

- Proposed new panfish regulations for Big Sand Lake:

A total of 25 panfish but no more than five of the sunfish (bluegill and pumpkinseed) may be over 7" (25/5 over 7").

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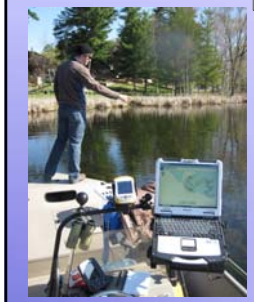
Early Season AIS Survey

Meander based survey – find AIS if it is present.

Onterra completed: June 18, 2014



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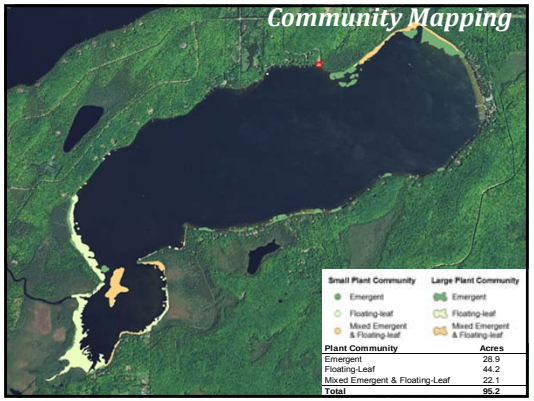
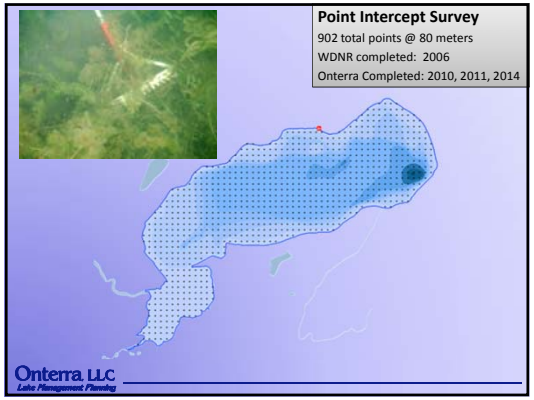


Plant Community	Acres
Emergent	28.9
Floating-Leaf	44.2
Mixed Emergent & Floating-Leaf	22.1
Total	95.2


Point Intercept Survey
902 total points @ 80 meters
WDNR completed: 2006
Onterra Completed: 2010, 2011, 2014
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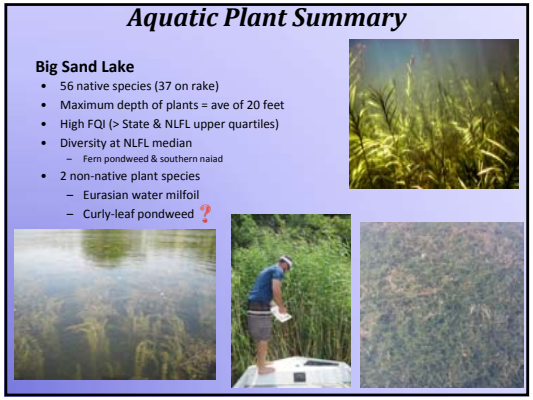
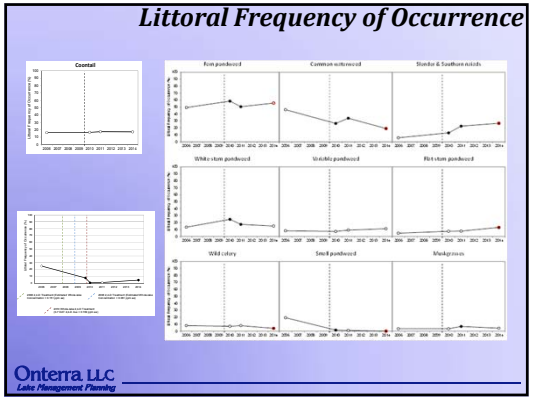

Aquatic Plant Summary
Big Sand Lake
56 native species (37 on rake)
Maximum depth of plants = ave of 20 feet
High FQI (> State & NLFL upper quartiles)
Diversity at NLFL median
Fern pondweed & southern naiad
2 non-native plant species
Eurasian water milfoil
Curly-leaf pondweed ?


Littoral Frequency of Occurrence
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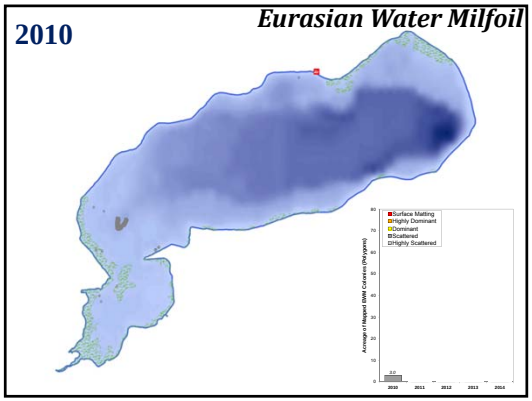
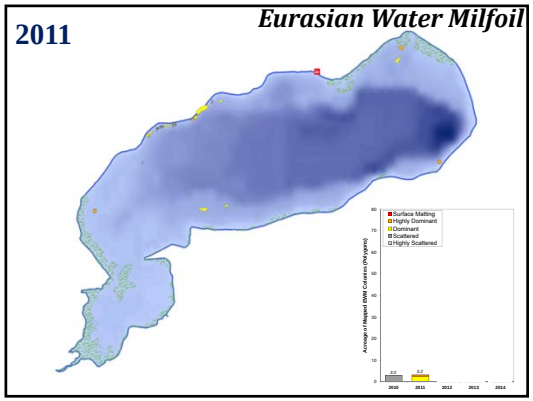
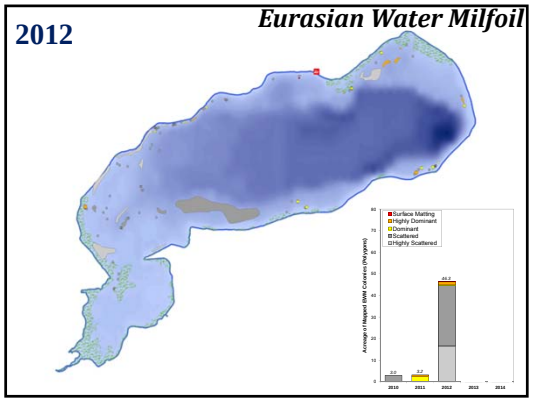
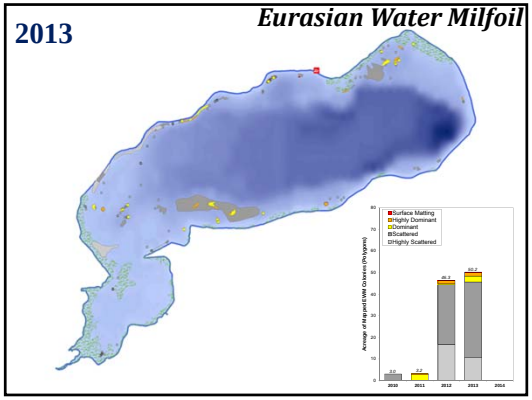
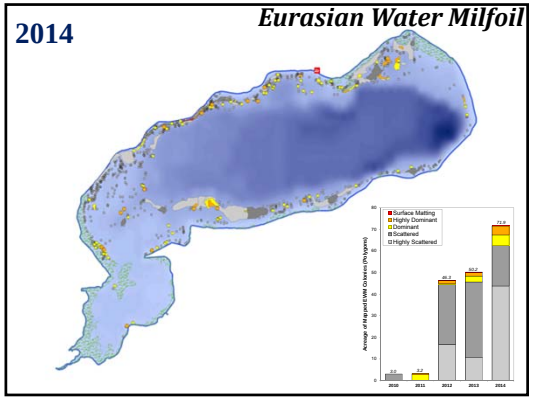
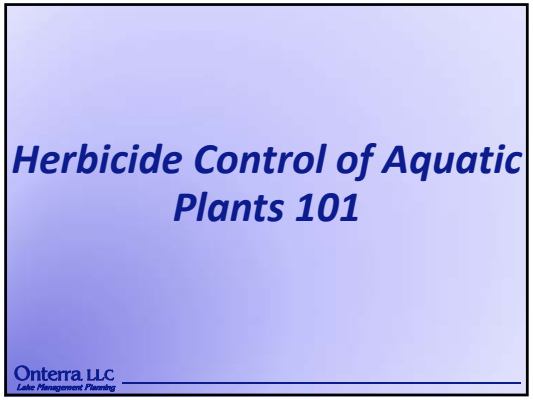

2010
Eurasian Water Milfoil
Surface Matting
Highly Dominant
Dominant
Scattered
Highly Scattered


2011
Eurasian Water Milfoil
Surface Matting
Highly Dominant
Dominant
Scattered
Highly Scattered


2012
Eurasian Water Milfoil
Surface Matting
Highly Dominant
Dominant
Scattered
Highly Scattered

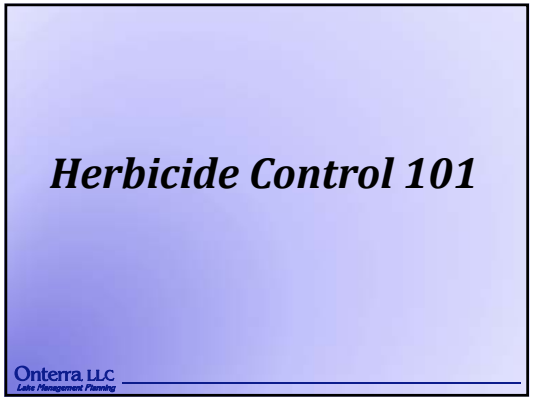


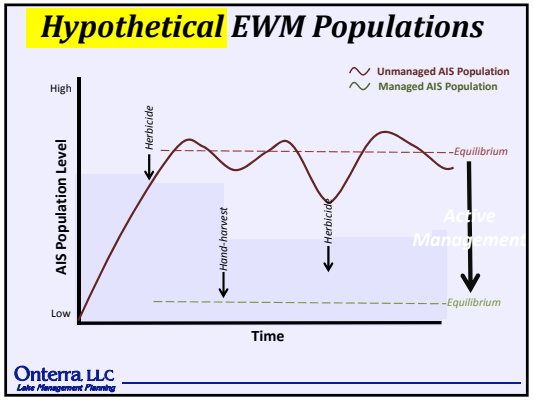




Active Management Discussion

Pros	Cons
• Keep AIS population low so native ecosystem can function as it did prior to AIS • Keep AIS population low so the lake is not a source population for other nearby lakes • Keep AIS population low so does not cause recreational, navigational, or aesthetic issues	• Management action itself may be ecological damaging to the lake, either through improper implementation or unintended/unknown impacts • Management action may not be fully supported by public • Equilibrium ***Unmanaged*** AIS population may be low enough to not cause large ecosystem or user conflicts





How do they work?

- **2,4-D –** absorbed by plant tissue; inhibits plant growth and cell division (auxin hormone mimic)
- **Triclopyr –** absorbed by plant tissue; inhibits plant growth and cell division(auxin hormone mimic)
- **Endothall –** commonly referred to as a contact herbicide, inhibits respiration and protein synthesis, disrupts cell membranes
- **Fluridone –** inhibits plant-specific enzyme (carotene) which protects chlorophyll from UV (sun) damage
- **Diquat –** Inhibits photosynthesis & destroys cell membranes

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Are herbicides "safe?"

Registration by the EPA does not mean that the use of the herbicide poses no risk to humans or the environment, only that the benefits have been determined to outweigh the risks.

Because product use is not without risk, the EPA does not define any pesticide as "safe."

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WDNR Administrative Code (NR 107):

Aquatic Plant Management Conditions

(1) The department may stop or limit the application of chemicals to a body of water if at any time it determines that chemical treatment will be ineffective, or will result in unreasonable restrictions on current water uses, or will produce unnecessary adverse side effects on non-target organisms.

(4) Treatment of areas containing high value species of aquatic plants shall be done in a manner which will not result in adverse long–term or permanent changes to a plant community in a specific aquatic ecosystem.

Underscores the importance of proper planning and monitoring

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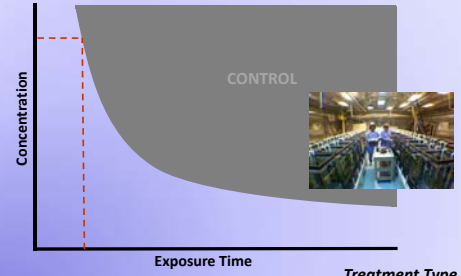
Early-season Herbicide Control Strategy

- Exotic species are small, actively growing, and most vulnerable
- Many native species are dormant
- Cool water temperatures result in slower microbial degradation
- Minimize biomass decomposition

Herbicide Use Patterns

- **Dissipation: horizontal and vertical movement of herbicide within the water column**
  - Water flow
  - Wind
  - Treatment area relative to lake
  - Water depth
- **Degradation: physical breakdown of herbicide into inert components**
  - Microbial
  - Photolytic

Herbicide Use Patterns



Treatment Type

Spot

High Concentration ► Short Exposure Time

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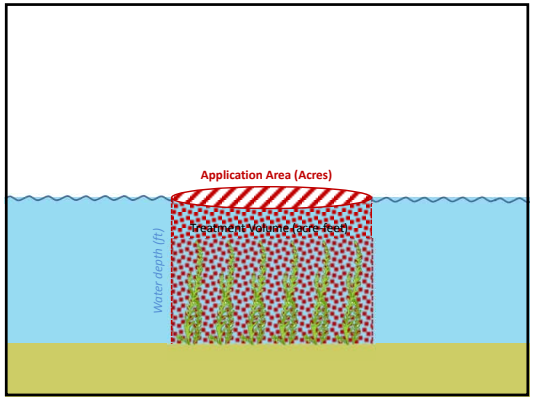
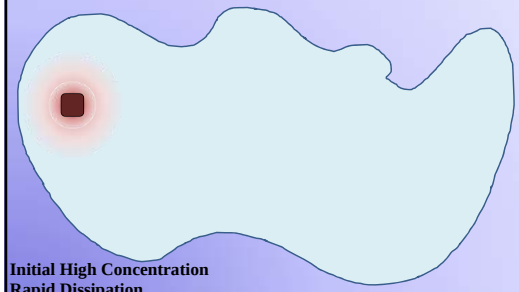


Spot Treatment Use Pattern

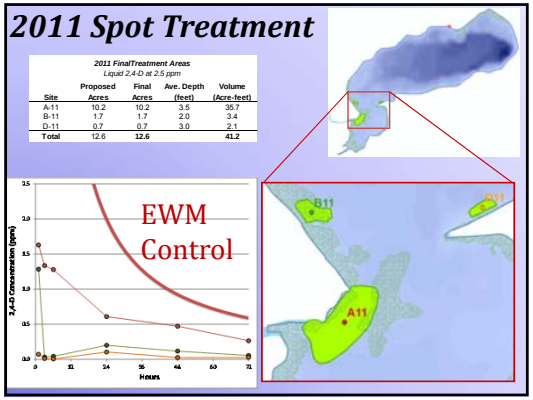


Initial High Concentration
Rapid Dissipation
Herbicide concentrations too low outside of Treatment Area to cause impact

2011 Spot Treatment

2011 FinalTreatment Areas
Liquid 2,4-D at 2.5 ppm

Site	Proposed Acres	Final Acres	Ave. Depth (feet)	Volume (Acre-feet)
A-11	10.2	10.2	3.6	36.7
B-11	1.7	1.7	2.0	3.4
D-11	0.7	0.7	3.0	2.1
Total	12.6	12.6		41.2



Factors that Result in Increased CET for Spot Treatments

- **Large Treatment Sites**
  - Especially over 5 acres
- **Broad-shaped Sites**
  - Long, skinny shapes act like small sites
- **Physical Barriers**
  - Dilution doesn't occur in all directions
  - Eddy effects
- **Low Water Exchange**
  - Flow
  - Wave-action

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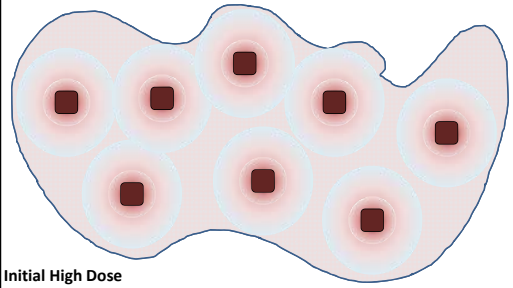
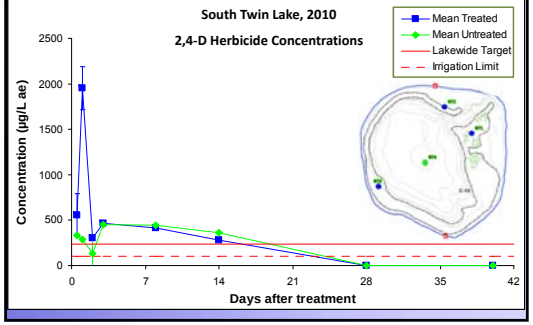
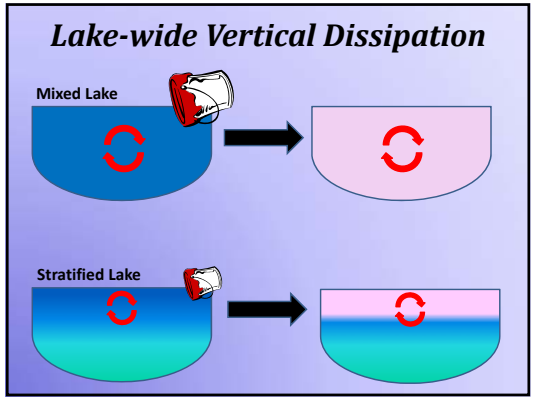
Whole-lake Use Pattern

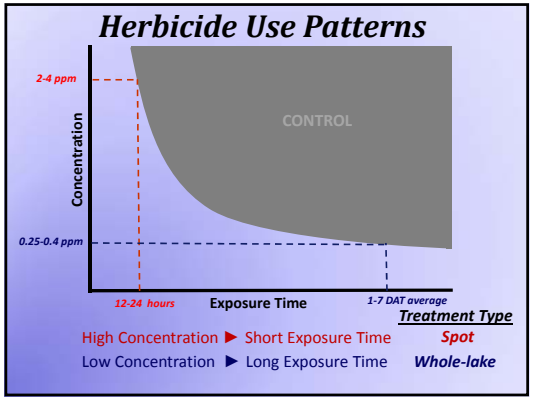


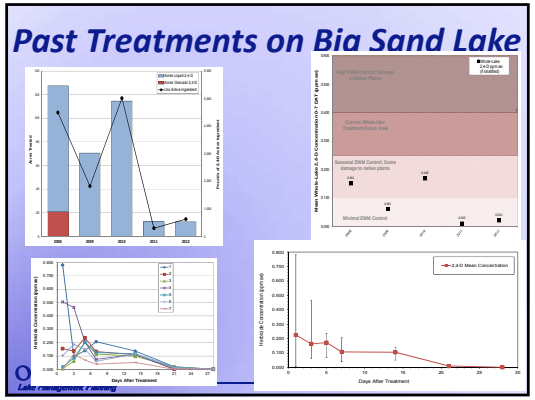
Initial High Dose
Rapid Dissipation
Low-dose lake-wide concentration significant to cause impact (control)

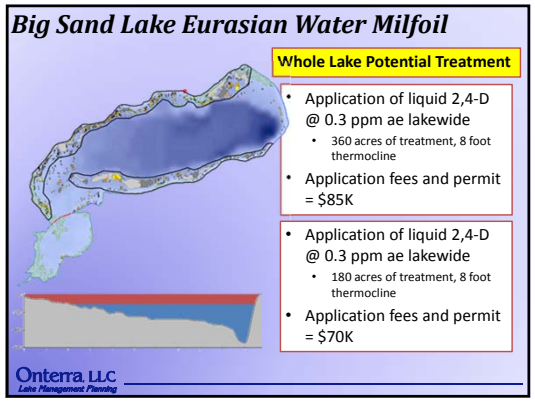
Lake-wide Horizontal Dissipation

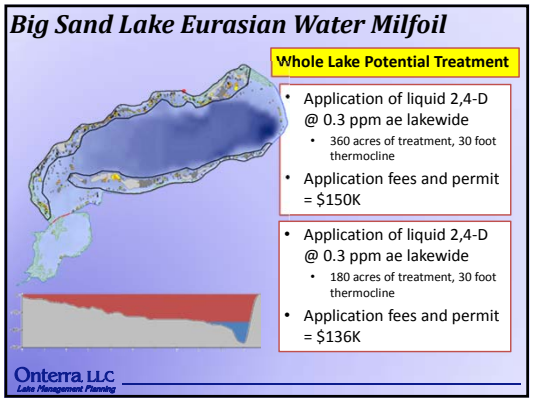












Conclusions

- Water quality is excellent
  - Low phosphorus, low algae, high water clarity
- Overall, watershed is in great condition
  - Land cover exports minimal phosphorus
  - Shoreland habitat mostly natural
- Aquatic plant community
  - Based upon standard analysis, native community is of high quality
  - Plant community contains a high number of native species and has moderate species diversity
  - Plant community has maintained quality over the course of EWM control program

B

APPENDIX B

Stakeholder Survey Response Charts and Comments

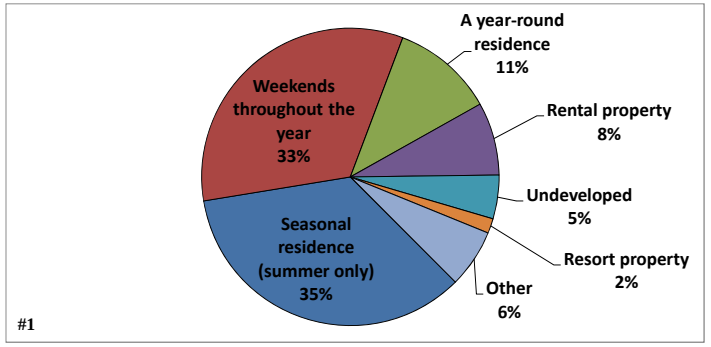
Big Sand Lake Stakeholder Survey Results

Returned Surveys	62
Sent Surveys	177
Response Rate (%)	35.0

Big Sand Lake Property

#1 How is your property on Big Sand Lake utilized?

	Total	%
Seasonal residence (summer only)	22	*34.9*
Weekends throughout the year	21	*33.3*
A year-round residence	7	*11.1*
Rental property	5	*7.9*
Undeveloped	3	*4.8*
Resort property	1	*1.6*
Other	4	*6.3*
I am a renter and do not own the property	0	*0.0*
	63	*100.0*

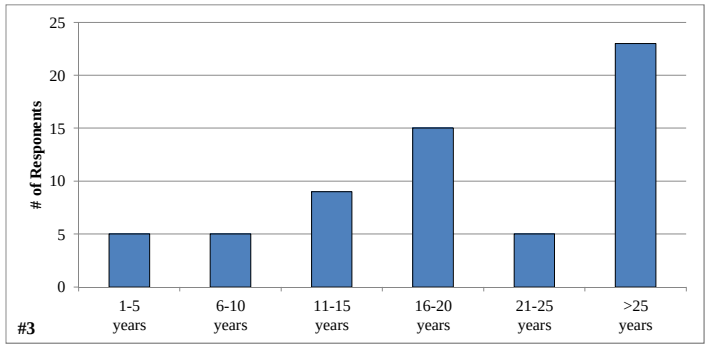


#2 How many days each year is your property used by you or others?

Answered Question	61
Average	108.0
Standard deviation	99.8

#3 How long have you owned or rented your property on Big Sand Lake?

	Total	%
1-5 years	5	*8.1*
6-10 years	5	*8.1*
11-15 years	9	*14.5*
16-20 years	15	*24.2*
21-25 years	5	*8.1*
>25 years	23	*37.1*
	62	*100.0*

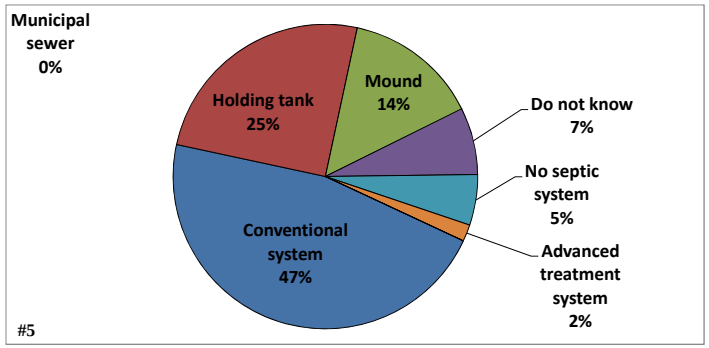


#4 Is your property located on the shoreline of Big Sand Lake (lakefront property), or not located on the lake's shoreline (not lakefront property)?

	Total	%
Lakefront property	56	*94.9*
Not lakefront property	3	*5.1*
	59	*100.0*

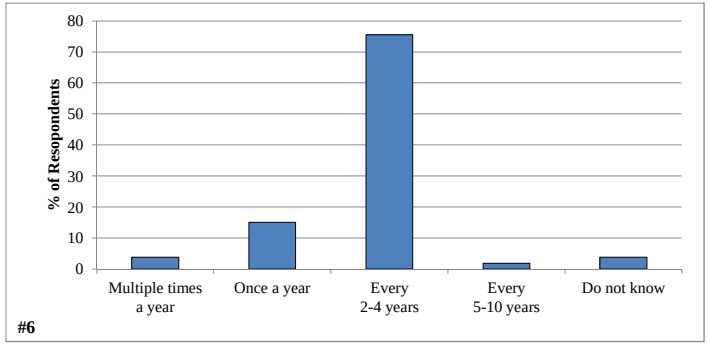
#5 What type of septic system does your property utilize?

	Total	%
Conventional system	26	*46.4*
Holding tank	14	*25.0*
Mound	8	*14.3*
Do not know	4	*7.1*
No septic system	3	*5.4*
Advanced treatment system	1	*1.8*
Municipal sewer	0	*0.0*
	56	*100.0*



#6 How often is the septic tank on your property pumped?

	Total	%
Multiple times a year	2	*3.8*
Once a year	8	*15.1*
Every 2-4 years	40	*75.5*
Every 5-10 years	1	*1.9*
Do not know	2	*3.8*
	53	*100.0*



Recreational Activity on Big Sand Lake

#7 How many years ago did you first visit Big Sand Lake?

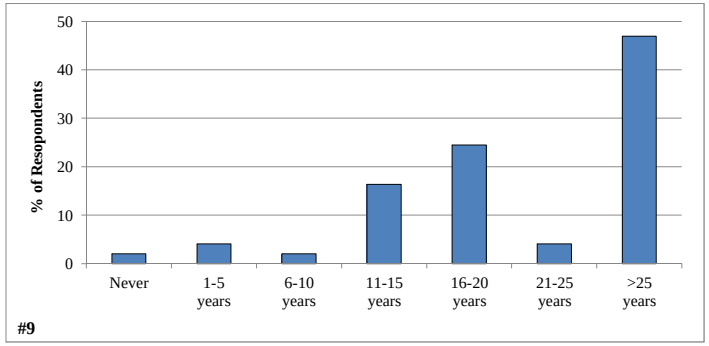
Answered Question	61
Average	36.1
Standard deviation	20.3

#8 Have you personally fished on Big Sand Lake in the past three years?

	Total	%
Yes	50	*80.6*
No	12	*19.4*
	62	*100.0*

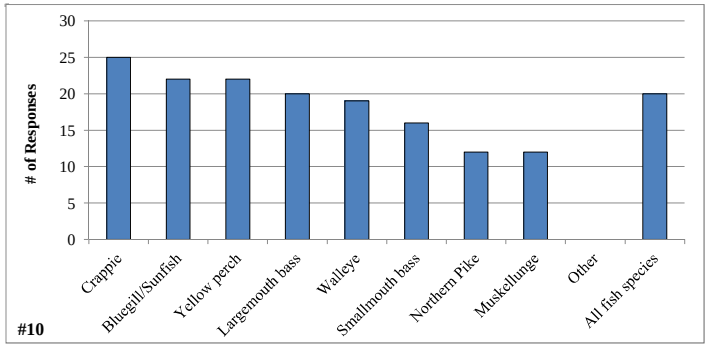
#9 For how many years have you fished Big Sand Lake?

	Total	%
Never	1	*2.0*
1-5 years	2	*4.1*
6-10 years	1	*2.0*
11-15 years	8	*16.3*
16-20 years	12	*24.5*
21-25 years	2	*4.1*
>25 years	23	*46.9*
	49	*100.0*



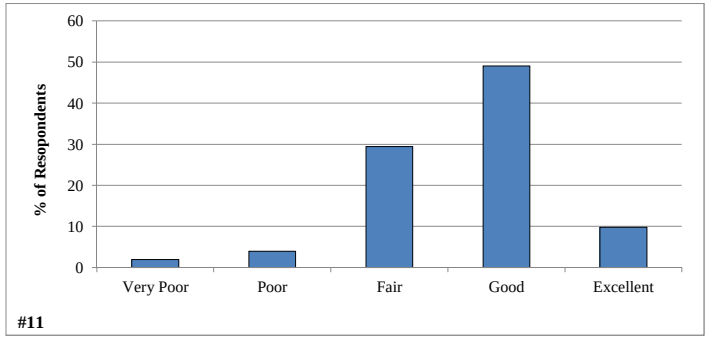
#10 What species of fish do you like to catch on Big Sand Lake?

	Total
Crappie	25
Bluegill/Sunfish	22
Yellow perch	22
Largemouth bass	20
Walleye	19
Smallmouth bass	16
Northern Pike	12
Muskellunge	12
Other	0
All fish species	20



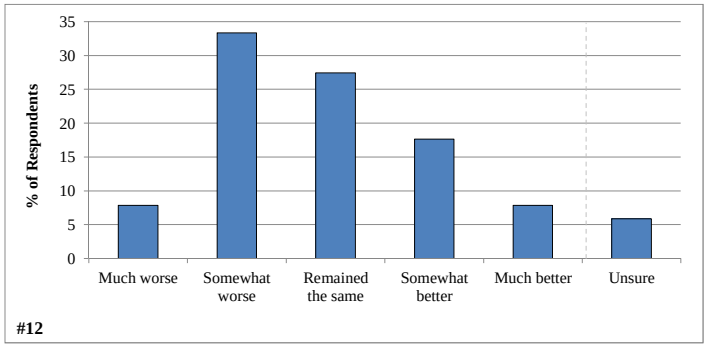
#11 How would you describe the current quality of fishing on Big Sand Lake?

	Total	%
Very Poor	1	*2.0*
Poor	2	*3.9*
Fair	15	*29.4*
Good	25	*49.0*
Excellent	5	*9.8*
Unsure	3	*5.9*
	51	*100.0*



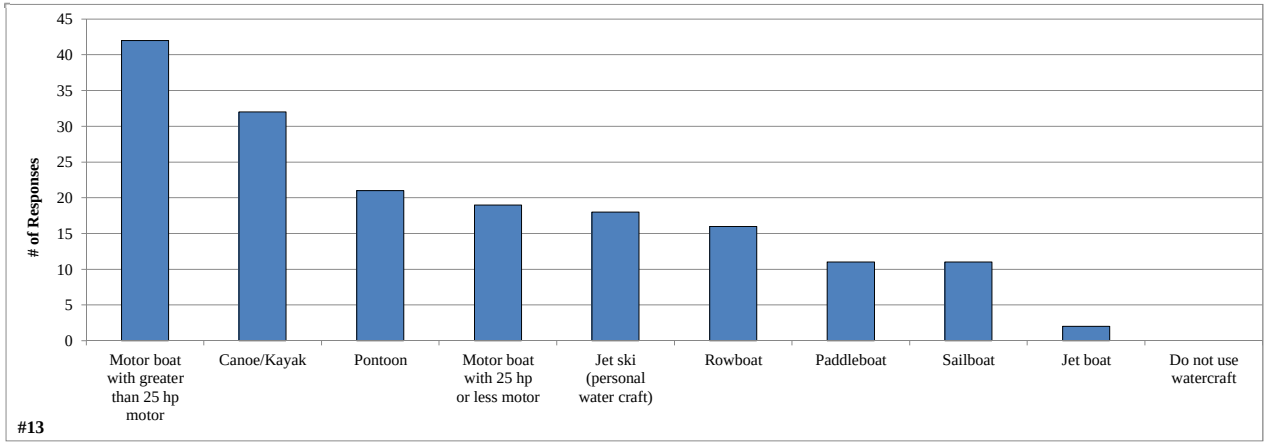
#12 How has the quality of fishing changed since you started fishing on the lake?

	Total	%
Much worse	4	*7.8*
Somewhat worse	17	*33.3*
Remained the Same	14	*27.5*
Somewhat better	9	*17.6*
Much better	4	*7.8*
Unsure	3	*5.9*
	51	*100.0*



#13 What types of watercraft do you currently use on the lake?

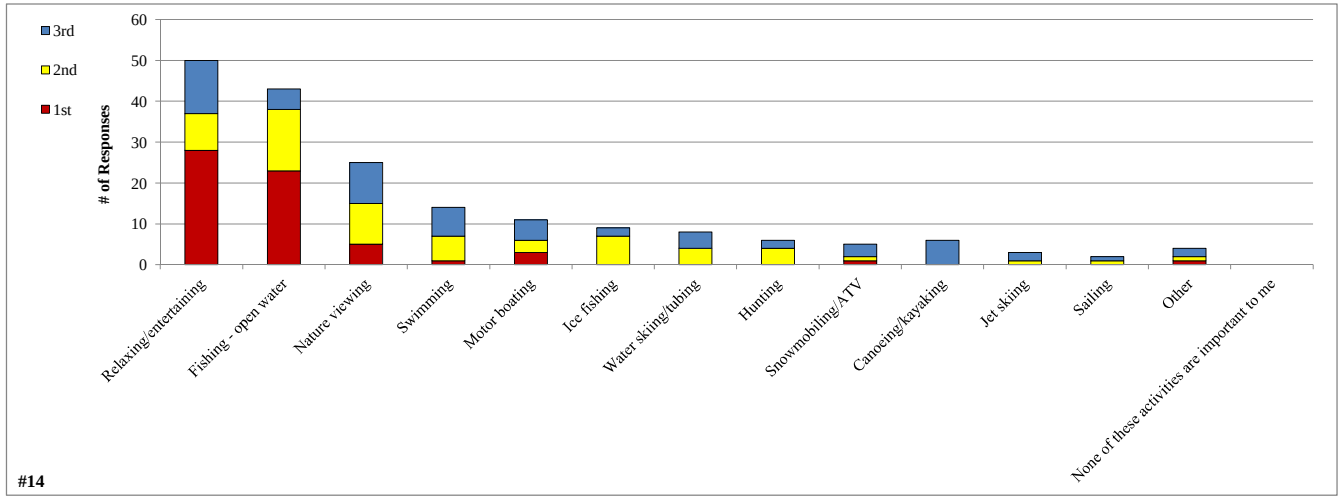
	Total
Motor boat with greater than 25 hp motor	42
Canoe/Kayak	32
Pontoon	21
Motor boat with 25 hp or less motor	19
Jet ski (personal water craft)	18
Rowboat	16
Paddleboat	11
Sailboat	11
Jet boat	2
Do not use watercraft	0



#14 Please rank up to three activities that are important reasons for owning your property on or near the lake.

	Responses				
	1st	**2nd**	**3rd**	*% response*	*% ranked**
Relaxing/entertaining	28	9	13	*26.9*	*30.9*
Fishing - open water	23	15	5	*23.1*	*28.0*
Nature viewing	5	10	10	*13.4*	*12.1*
Swimming	1	6	7	*7.5*	*5.9*
Motor boating	3	3	5	*5.9*	*5.4*
Ice fishing	0	7	2	*4.8*	*4.3*
Water skiing/tubing	0	4	4	*4.3*	*3.2*
Hunting	0	4	2	*3.2*	*2.7*
Snowmobiling/ATV	1	1	3	*2.7*	*2.2*
Canoeing/kayaking	0	0	6	*3.2*	*1.6*
Jet skiing	0	1	2	*1.6*	*1.1*
Sailing	0	1	1	*1.1*	*0.8*
Other	1	1	2	*2.2*	*1.9*
None of these activities are important to me	0	0	0	*0.0*	*0.0*
	62	62	62	*100.0*	*100.0*

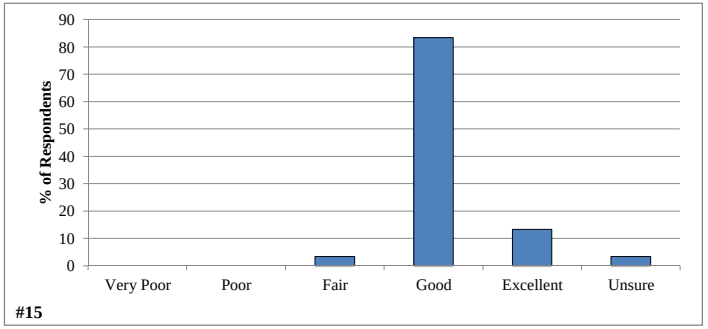
**Responses assigned scores of:*
1st response = "3"
2nd response = "2"
3rd response = "1"
and ranked according to response totals



Big Sand Lake Current and Historic Condition, Health and Management

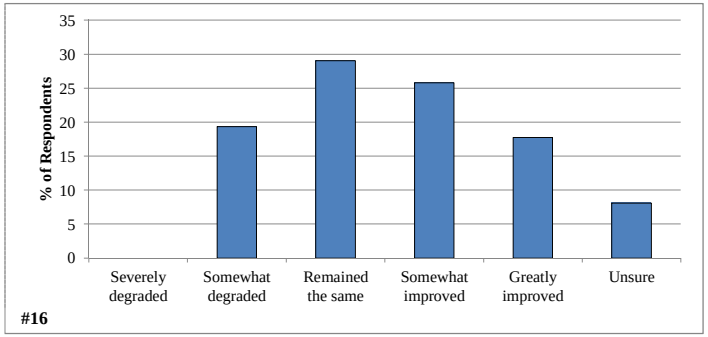
#15 How would you describe the current water quality of Big Sand Lake?

	Total	%
Very Poor	0	*0.0*
Poor	0	*0.0*
Fair	2	*3.3*
Good	50	*83.3*
Excellent	8	*13.3*
Unsure	2	*3.3*
	60	*100.0*



#16 How has the water quality changed in Big Sand Lake since you first visited the lake?

	Total	%
Severely degraded	0	*0.0*
Somewhat degraded	12	*19.4*
Remained the same	18	*29.0*
Somewhat improved	16	*25.8*
Greatly improved	11	*17.7*
Unsure	5	*8.1*
	62	*100.0*



#17 Have you ever heard of aquatic invasive species?

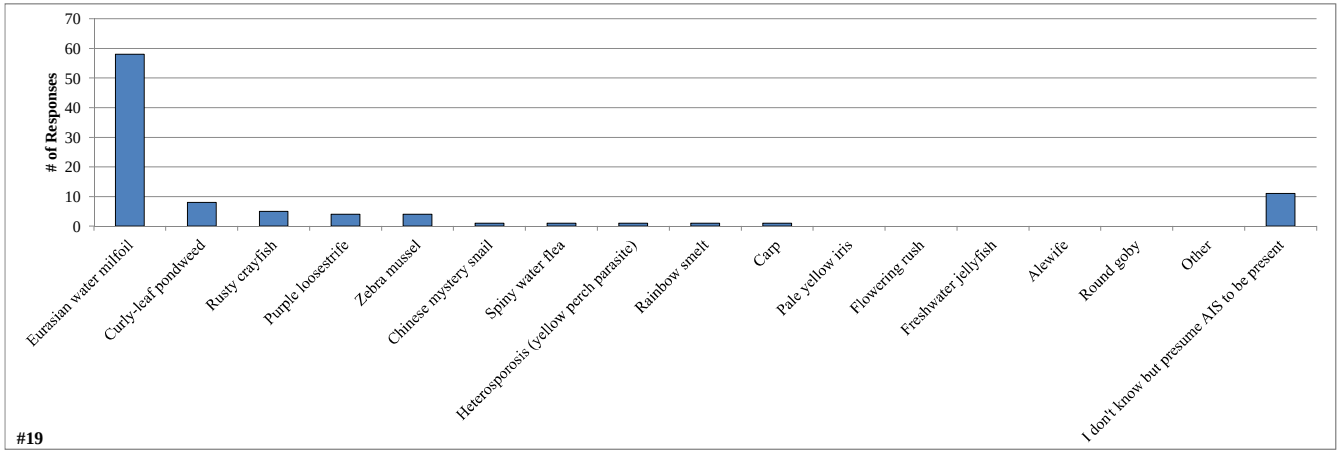
	Total	%
Yes	60	*93.8*
No	4	*6.3*
	64	*100.0*

#18 Are you aware of aquatic invasive species in the lake?

	Total	%
Yes	60	*100.0*
No	0	*0.0*
	60	*100.0*

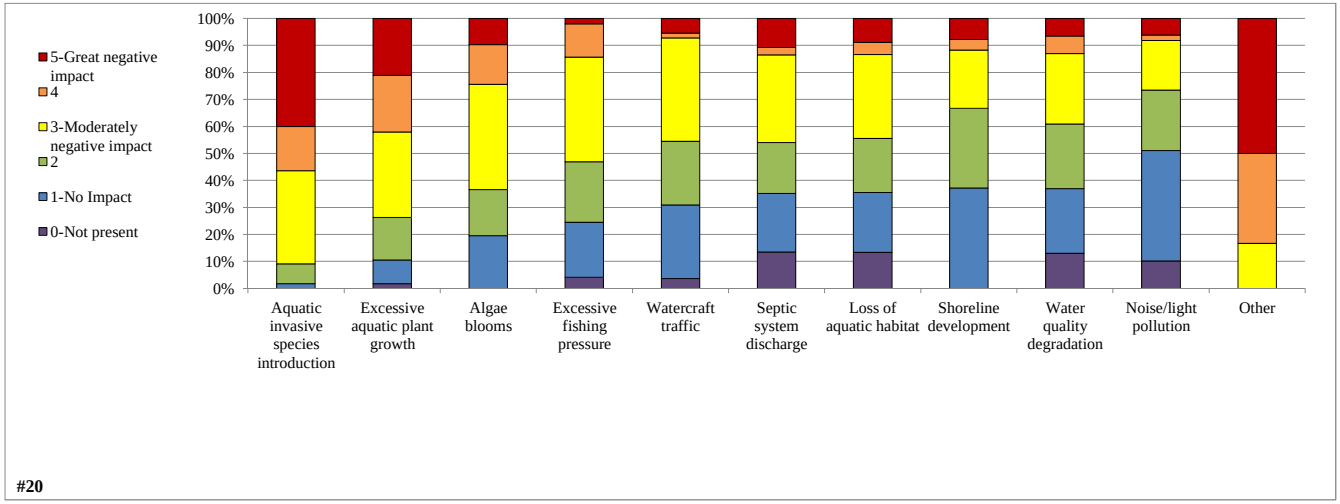
#19 Which aquatic invasive species are you aware of in the lake?

	Total
Eurasian water milfoil	58
Curly-leaf pondweed	8
Rusty crayfish	5
Purple loosestrife	4
Zebra mussel	4
Chinese mystery snail	1
Spiny water flea	1
Heterosporosis (yellow perch parasite)	1
Rainbow smelt	1
Carp	1
Pale yellow iris	0
Flowering rush	0
Freshwater jellyfish	0
Alewife	0
Round goby	0
Other	0
I don't know but presume AIS to be present	11



#20 To what level do you believe each of the following factors may be negatively impacting Big Sand Lake?

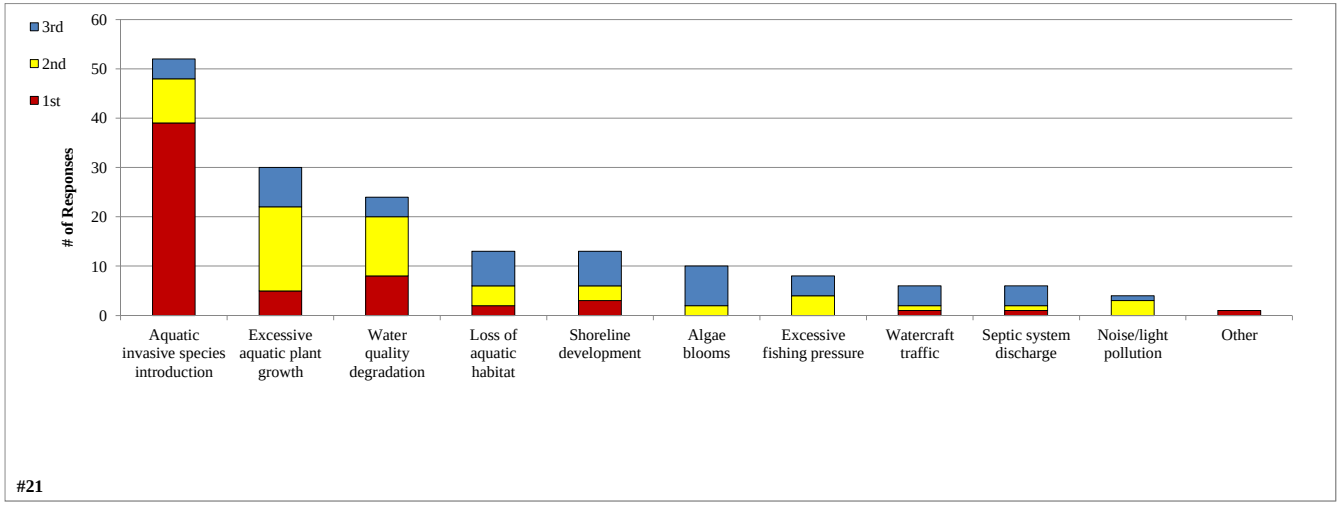
	0-Not present	1-No Impact	2	3-Moderately negative impact	4	5-Great negative impact	Unsure	*Total*	*Average*
Aquatic invasive species introduction	0	1	4	19	9	22	3	*55*	*3.9*
Excessive aquatic plant growth	1	5	9	18	12	12	3	*56*	*3.2*
Algae blooms	0	8	7	16	6	4	15	*41*	*2.8*
Excessive fishing pressure	2	10	11	19	6	1	8	*47*	*2.4*
Watercraft traffic	2	15	13	21	1	3	2	*53*	*2.2*
Septic system discharge	5	8	7	12	1	4	21	*32*	*2.2*
Loss of aquatic habitat	6	10	9	14	2	4	9	*39*	*2.2*
Shoreline development	0	19	15	11	2	4	6	*51*	*2.2*
Water quality degradation	6	11	11	12	3	3	11	*40*	*2.1*
Noise/light pollution	5	20	11	9	1	3	7	*44*	*1.8*
Other	0	0	0	1	2	3	0	*6*	*4.3*



#20

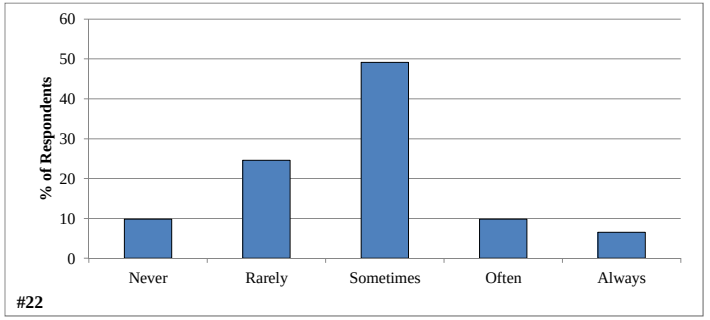
#21 From the list below, please rank your top three concerns regarding Big Sand Lake.

	1st	2nd	3rd	*% Ranked*
Aquatic invasive species introduction	39	9	4	*31.1*
Excessive aquatic plant growth	5	17	8	*18.0*
Water quality degradation	8	12	4	*14.4*
Loss of aquatic habitat	2	4	7	*7.8*
Shoreline development	3	3	7	*7.8*
Algae blooms	0	2	8	*6.0*
Excessive fishing pressure	0	4	4	*4.8*
Watercraft traffic	1	1	4	*3.6*
Septic system discharge	1	1	4	*3.6*
Noise/light pollution	0	3	1	*2.4*
Other	1	0	0	*0.6*
	60	56	51	*100.0*



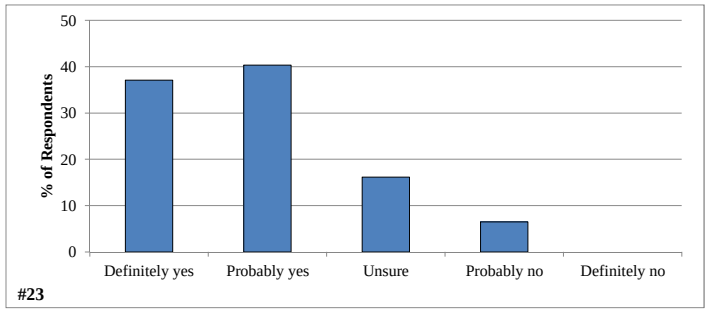
#22 During open water season how often does aquatic plant growth, including algae, negatively impact your enjoyment of the lake?

	Total	*%*
Never	6	*9.8*
Rarely	15	*24.6*
Sometimes	30	*49.2*
Often	6	*9.8*
Always	4	*6.6*
	61	*100.0*



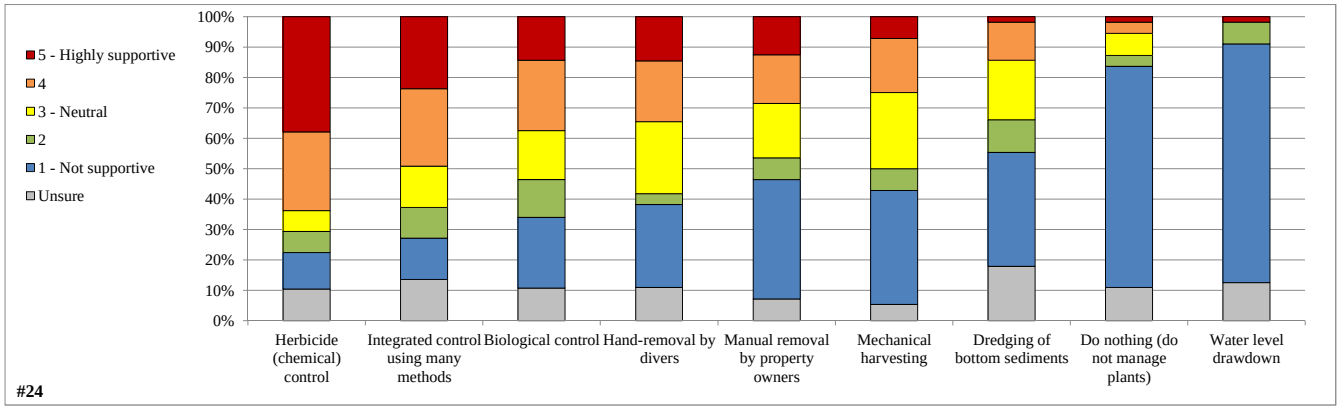
#23 Considering your answer to the question #22, do you believe aquatic plant control is needed on Big Sand Lake?

	Total	%
Definitely yes	23	*37.1*
Probably yes	25	*40.3*
Unsure	10	*16.1*
Probably no	4	*6.5*
Definitely no	0	*0.0*
	62	*100.0*



#24 Aquatic plants can be professionally managed using many techniques. What is your level of support for the responsible use of the following techniques on Big Sand Lake?

	1 - Not supportive	2	3 - Neutral	4	5 - Highly supportive	Unsure	Total	Average
Herbicide (chemical) control	7	4	4	15	22	6	*52*	*3.8*
Integrated control using many methods	8	6	8	15	14	8	*51*	*3.4*
Biological control	13	7	9	13	8	6	*50*	*2.9*
Hand-removal by divers	15	2	13	11	8	6	*49*	*2.9*
Manual removal by property owners	22	4	10	9	7	4	*52*	*2.5*
Mechanical harvesting	21	4	14	10	4	3	*53*	*2.5*
Dredging of bottom sediments	21	6	11	7	1	10	*46*	*2.2*
Do nothing (do not manage plants)	40	2	4	2	1	6	*49*	*1.4*
Water level drawdown	44	4	0	0	1	7	*49*	*1.2*



#25 From 2008 to 2012, aquatic herbicides have been used to control Eurasian water milfoil on Big Sand Lake. Professional monitoring of the aquatic plant community has also occurred during this time. Prior to reading this information, did you know that aquatic herbicides were being applied in Big Sand Lake to help control Eurasian water milfoil?

	Total	%
Yes	57	*100.0*
I think so but cannot say for certain	0	*0.0*
No	0	*0.0*
	57	*100.0*

#26 How do you feel about the past use of herbicides to treat Eurasian water milfoil in 2008-2012?

	Total	%
Completely support	33	*55.0*
Moderately support	19	*31.7*
Unsure/Neutral	2	*3.3*
Moderately oppose	3	*5.0*
Completely oppose	3	*5.0*
	60	*100.0*

#27 What is your level of support or opposition for <u>future</u> aquatic herbicide use to target Eurasian water milfoil in Big Sand Lake?

	Total	%
Completely support	29	*49.2*
Moderately support	19	*32.2*
Unsure/Neutral	6	*10.2*
Moderately oppose	3	*5.1*
Completely oppose	2	*3.4*
	59	*100.0*

#28 <u>If you selected "Moderately oppose" or "Completely oppose" on Question #27</u>, what is the reason or reasons you oppose the future use of aquatic herbicides to target Eurasian water milfoil in Big Sand Lake?
Select all that apply

Despite being asked to respond to Question #28 only if opposition was expressed in Question #27, several respondents selected answers even if they were in support of herbicide treatments or neutral. Their responses are included for informative purposes only.

<u>Question #27 "Moderately or Completely opposed" responses</u>

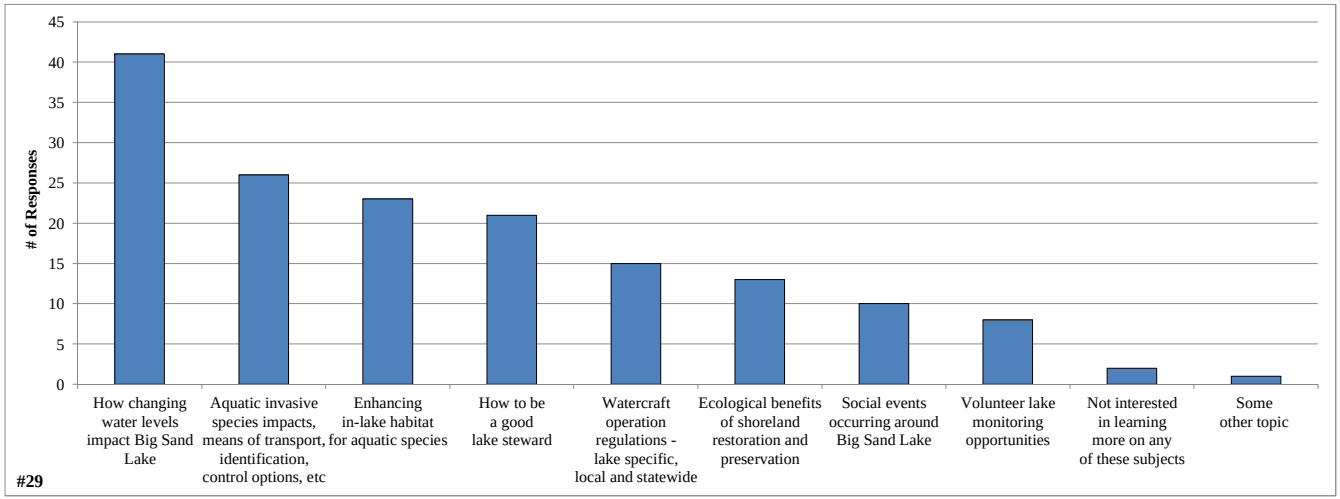
	Total	%
Cost of treatment too high	1	*7.1*
Potential impacts to native aquatic plant species	4	*28.6*
Potential impacts to other native (non-plant) species	4	*28.6*
Potential impacts to human health	4	*28.6*
Other	1	*7.1*
	14	*100.0*

<u>Additional responses from those who support herbicide use (Question #27)</u>

	Total	%
Cost of treatment too high	4	*28.6*
Potential impacts to native aquatic plant species	2	*14.3*
Potential impacts to other native (non-plant) species	5	*35.7*
Potential impacts to human health	6	*42.9*
Other	2	*14.3*
	19	*135.7*

#29 Which of these subjects would you like to learn more about?

	Total
How changing water levels impact Big Sand Lake	41
Aquatic invasive species impacts, means of transport, identification, control options, etc	26
Enhancing in-lake habitat (not shoreland or adjacent wetlands) for aquatic species	23
How to be a good lake steward	21
Watercraft operation regulations - lake specific, local and statewide	15
Ecological benefits of shoreland restoration and preservation	13
Social events occurring around Big Sand Lake	10
Volunteer lake monitoring opportunities	8
Not interested in learning more on any of these subjects	2
Some other topic	1



Big Sand Lake Property Owners Association (BSLPOA)

#30 Before receiving this mailing, have you ever heard of the Big Sand Lake Property Owners Association?

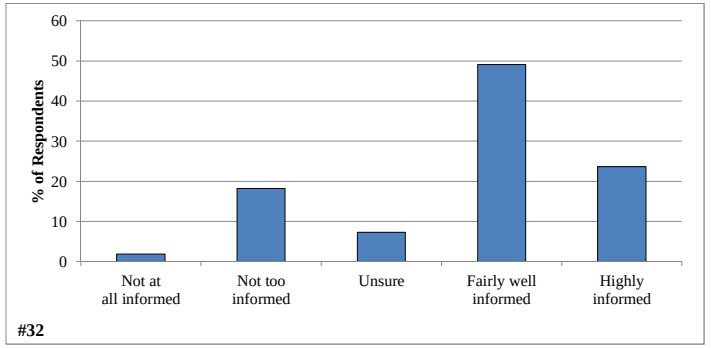
	Total	%
Yes	58	*100.0*
No	0	*0.0*
	58	*100.0*

#31 What is your membership status with the Big Sand Lake Property Owners Association?

	Total	%
Current member	53	*94.6*
Former member	0	*0.0*
Never been a member	3	*5.4*
	56	*100.0*

#32 How informed has the Big Sand Lake Lake Association kept you regarding issues with the lake and its management?

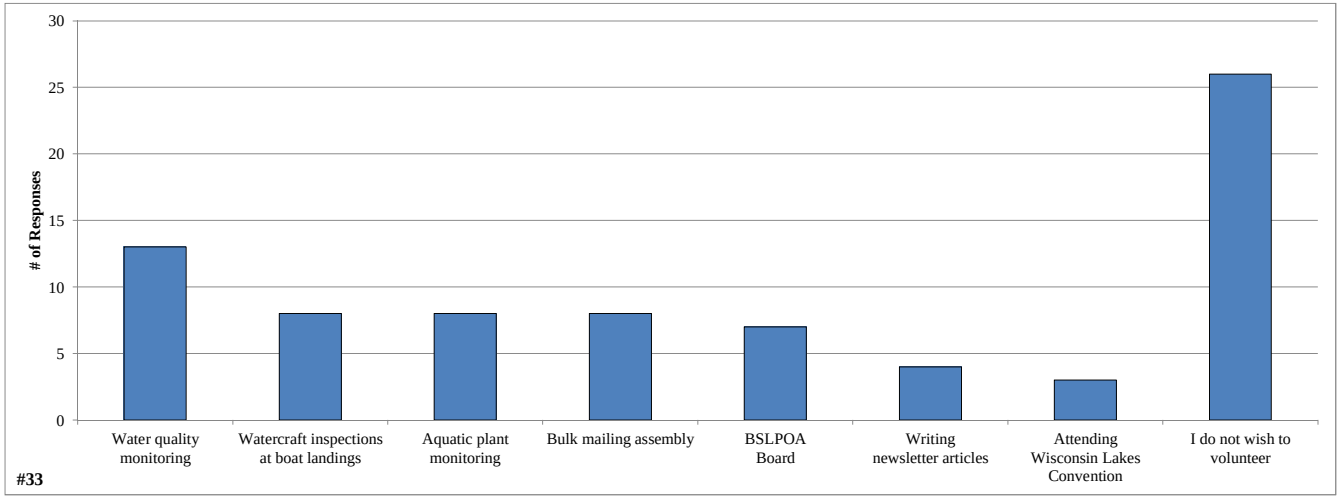
	Total	%
Not at all informed	1	*1.8*
Not too informed	10	*18.2*
Unsure	4	*7.3*
Fairly well informed	27	*49.1*
Highly informed	13	*23.6*
	55	*100.0*



#32

#33 Please circle the activities you would be willing to participate in if the BSLPOA requires additional assistance.

	Total
Water quality monitoring	13
Watercraft inspections at boat landings	8
Aquatic plant monitoring	8
Bulk mailing assembly	8
BSLPOA Board	7
Writing newsletter articles	4
Attending Wisconsin Lakes Convention	3
I do not wish to volunteer	26



C

APPENDIX C

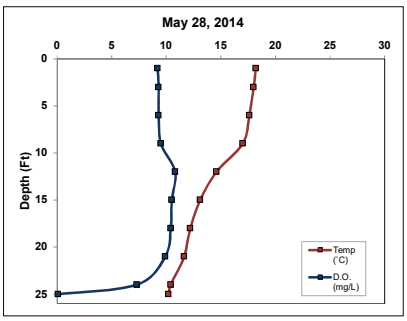
Water Quality Data

Big Sand Lake

Date: 5/28/2014
Time: 11:05
Weather: 25% clouds, 66F, slight breeze
Entry: EEH

Max Depth: 26.2
BSLS Depth (ft): 3.0
BSLB Depth (ft): 24.0
Secchi Depth (ft): 12.0

Depth (ft)	Temp (˚C)	D.O. (mg/L)	pH	Sp. Cond. (µS/cm)
1	18.2	9.2		
3	18.0	9.3	10.1	
6	17.6	9.3		
9	17.0	9.5		
12	14.6	10.8	10.2	
15	13.1	10.5		
18	12.2	10.4		
21	11.6	9.9		
24	10.4	7.3	8.7	
25	10.2	0.1		



Parameter	BSLS	BSLB
Total P (µg/L)	15.80	118.00
Dissolved P (µg/L)	ND	ND
Chl-a (µg/L)	1.05	NA
TKN (µg/L)	453.00	995.00
$NO_3 + NO_2$-N (µg/L)	ND	ND
NH_3-N (µg/L)	ND	ND
Total N (µg/L)	453.00	995.00
Lab Cond. (µS/cm)	74.10	73.50
Lab pH	7.72	7.13
Alkalinity (mg/L $CaCO_3$)	35.00	34.40
Total Susp. Solids (mg/L)	ND	48.30
Calcium (mg/L)	8.62	NA
Magnesium (mg/L)	3.33	NA
Hardness (mg/L)	35.20	NA
Color (SU)	5.00	NA
Turbidity (NTU)	NA	NA

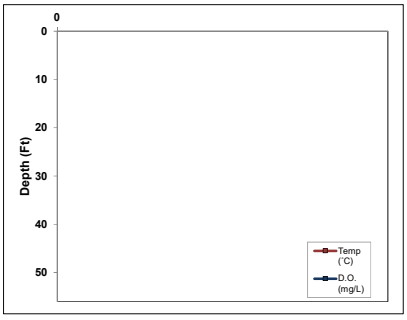
Data collected by EAT, SDF, and EEH (Onterra)

Big Sand Lake

Date: 6/29/2014
Time: 13:15
Weather: 25.67 C, 50% clouds
Entry: EEH

Max Depth:
BSLS Depth (ft): 6.0
BSLB Depth (ft):
Secchi Depth (ft): 12.0

Depth (ft)	Temp (˚C)	D.O. (mg/L)	pH	Sp. Cond. (µS/cm)



Parameter	BSLS	BSLB
Total P (µg/L)	NA	NA
Dissolved P (µg/L)	NA	NA
Chl-a (µg/L)	NA	NA
TKN (µg/L)	381.00	NA
$NO_3 + NO_2$-N (µg/L)	ND	NA
NH_3-N (µg/L)	ND	NA
Total N (µg/L)	381.00	NA
Lab Cond. (µS/cm)	.	NA
Lab pH	NA	NA
Alkalinity (mg/L $CaCO_3$)	NA	NA
Total Susp. Solids (mg/L)	NA	NA
Calcium (mg/L)	NA	NA
Magnesium (mg/L)	NA	NA
Hardness (mg/L)	NA	NA
Color (SU)	NA	NA
Turbidity (NTU)	NA	NA

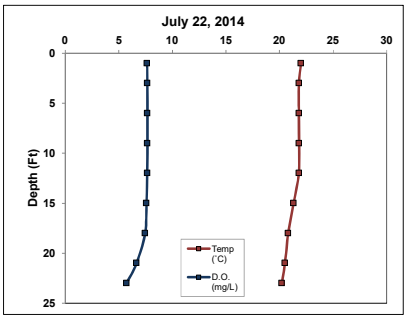
Data collected by CLMN volunteer

Big Sand Lake

Date: 7/22/2014
Time: 8:45
Weather: High 70s, Overcast
Entry: EEH

Max Depth: 25.5
BSLS Depth (ft): 3.0
BSLB Depth (ft): 23.0
Secchi Depth (ft): 7.3

Depth (ft)	Temp (˚C)	D.O. (mg/L)	pH	Sp. Cond. (µS/cm)
1	22.0	7.6		
3	21.8	7.7		
6	21.8	7.7		
9	21.8	7.7		
12	21.8	7.7		
15	21.3	7.6		
18	20.8	7.5		
21	20.5	6.7		
23	20.2	5.7		



Parameter	BSLS	BSLB
Total P (µg/L)	16.90	23.40
Dissolved P (µg/L)	NA	NA
Chl-a (µg/L)	6.89	NA
TKN (µg/L)	424.00	NA
$NO_3 + NO_2$-N (µg/L)	ND	NA
NH_3-N (µg/L)	ND	NA
Total N (µg/L)	424.00	NA
Lab Cond. (µS/cm)	76.30	74.80
Lab pH	7.71	7.42
Alkalinity (mg/L $CaCO_3$)	35.70	35.30
Total Susp. Solids (mg/L)	NA	NA
Calcium (mg/L)	NA	NA
Magnesium (mg/L)	NA	NA
Hardness (mg/L)	NA	NA
Color (SU)	10.00	NA
Turbidity (NTU)	NA	NA

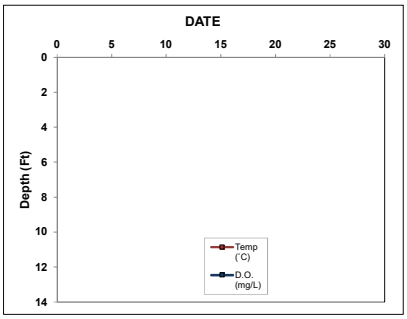
Data collected by TWH and SDF (Onterra)

Big Sand Lake

Date: 8/26/2014
Time: 13:00
Weather: Sunny, moderate breeze, 68F, 10% cloud
Entry: EEH

Max Depth:
BSLS Depth (ft):
BSLB Depth (ft):
Secchi Depth (ft): 10.1

Depth (ft)	Temp (˚C)	D.O. (mg/L)	pH	Sp. Cond. (µS/cm)
	21.2			
	21.1			
	21.1			
	21.1			
	21.1			
	21.1			
	21.1			
	21.0			
	21.0			
	10.3			
	8.0			
	7.8			



Parameter	BSLS	BSLB
Total P (µg/L)	NA	NA
Dissolved P (µg/L)	NA	NA
Chl-a (µg/L)	NA	NA
TKN (µg/L)	526.00	NA
$NO_3 + NO_2$-N (µg/L)	ND	NA
NH_3-N (µg/L)	ND	NA
Total N (µg/L)	526.00	NA
Lab Cond. (µS/cm)	NA	NA
Lab pH	NA	NA
Alkalinity (mg/L $CaCO_3$)	NA	NA
Total Susp. Solids (mg/L)	NA	NA
Calcium (mg/L)	NA	NA
Magnesium (mg/L)	NA	NA
Hardness (mg/L)	NA	NA
Color (SU)	NA	NA
Turbidity (NTU)	NA	NA

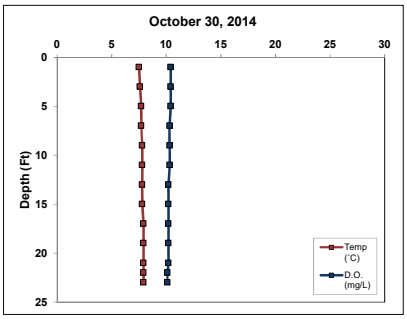
Data collected by CLMN volunteer

Big Sand Lake

Date: 10/30/2014
Time: 10:15
Weather: 100% clouds, 36F, light wind
Entry: EEH

Max Depth: 25.3
BSLS Depth (ft): 3.0
BSLB Depth (ft): 22.0
Secchi Depth (ft): 11.0

Depth (ft)	Temp (˚C)	D.O. (mg/L)	pH	Sp. Cond. (µS/cm)
1	7.5	10.4		
3	7.6	10.4		
5	7.7	10.4		
7	7.7	10.3		
9	7.8	10.3		
11	7.8	10.3		
13	7.8	10.2		
15	7.8	10.2		
17	7.9	10.2		
19	7.9	10.2		
21	7.9	10.2		
22	7.9	10.1		
23	7.9	10.1		



Parameter	BSLS	BSLB
Total P (µg/L)	16.30	16.90
Dissolved P (µg/L)	NA	NA
Chl-a (µg/L)	10.10	NA
TKN (µg/L)	NA	NA
$NO_3 + NO_2$-N (µg/L)	NA	NA
NH_3-N (µg/L)	NA	NA
Total N (µg/L)	NA	NA
Lab Cond. (µS/cm)	NA	NA
Lab pH	NA	NA
Alkalinity (mg/L $CaCO_3$)	NA	NA
Total Susp. Solids (mg/L)	2.00	ND
Calcium (mg/L)	NA	NA
Magnesium (mg/L)	NA	NA
Hardness (mg/L)	NA	NA
Color (SU)	NA	NA
Turbidity (NTU)	NA	NA

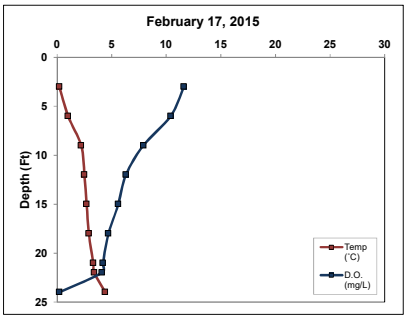
Data collected by TWH (Onterra)

Big Sand Lake

Date: 2/17/2015
Time: 13:55
Weather: 4F, light breeze, 75% clouds
Entry: EEH

Max Depth: 25.1
BSLS Depth (ft): 3.0
BSLB Depth (ft): 22.0
Secchi Depth (ft): 16.4

Depth (ft)	Temp (˚C)	D.O. (mg/L)	pH	Sp. Cond. (µS/cm)
1				
3	0.2	11.6		
6	1.0	10.4		
9	2.2	7.9		
12	2.5	6.3		
15	2.7	5.6		
18	2.9	4.7		
21	3.3	4.2		
22	3.4	4.1		
24	4.4	0.2		



Parameter	BSLS	BSLB
Total P (µg/L)	14.80	21.90
Dissolved P (µg/L)	4.30	5.00
Chl-a (µg/L)	NA	NA
TKN (µg/L)	525.00	343.00
$NO_3 + NO_2$-N (µg/L)	20.80	154.00
NH_3-N (µg/L)	70.40	69.20
Total N (µg/L)	545.80	497.00
Lab Cond. (µS/cm)	NA	NA
Lab pH	NA	NA
Alkalinity (mg/L $CaCO_3$)	NA	NA
Total Susp. Solids (mg/L)	NA	NA
Calcium (mg/L)	NA	NA
Magnesium (mg/L)	NA	NA
Hardness (mg/L)	NA	NA
Color (SU)	NA	NA
Turbidity (NTU)	NA	NA

Data collected by TWH and EEH (Onterra). Ice thickness: 1.8 feet.

Water Quality Data

2014-2015	Surface		Bottom	
Parameter	Count	Mean	Count	Mean
Secchi Depth (feet)	6	11.5	NA	NA
Total P (µg/L)	4	16.0	4	45.1
Dissolved P (µg/L)	2	4.3	2	5.0
Chl a (µg/L)	3	6.0	0	NA
TKN (µg/L	5	461.8	2	669.0
NO3+NO2-N (µg/L)	5	20.8	2	154.0
NH3-N (µg/L)	5	70.4	2	69.2
Total N (µg/L)	5	466.0	2	746.0
Lab Cond. (µS/cm)	2	75.2	2	74.2
Lab pH	2	7.7	2	7.3
Alkal (mg/l CaCO3)	2	35.4	2	34.9
Total Susp. Solids (mg/l)	2	2.0	2	48.3
Calcium (µg/L)	1	8.6	0	NA
Magnesium (mg/L)	1	3.3	0	NA
Hardness (mg/L)	1	35.2	0	NA
Color (SU)	2	7.5	0	NA
Turbidity (NTU)	0	NA	0	NA

Morphological / Geographical Data

Parameter	Value
Acreage	
Volume (acre-feet)	
Perimeter (miles)	
Shoreland Developmetnt Factor	
Maximum Depth (feet)	
County	
WBIC	
Lillie Mason Region (1983)	NLF Ecoregion
Nichols Ecoregion (1999)	NLFL

Trophic State Index (TSI)

Year	TP	Chl-a	Secchi
1973	47.3		48.1
1974	53.2		51.1
1975			
1979	41.1	53.1	47.2
1989	42.5	47.6	41.2
1992	38.3		39.4
1994	43.2	43.9	39.5
1999			44.4
2000	41.9	41.5	39.6
2001	43.5	42.7	
2002	43.8	47.0	
2009	47.7	50.2	41.3
2010	45.8	46.8	40.4
2011	45.7	50.9	44.0
2012	48.1	54.3	43.6
2013	44.7	51.0	41.3
2014	45.7	48.7	45.1
All Years (Weighted)	45.3	49.3	41.8
Deep, Lowland Drainage Lakes	49.4	49.7	46.2
NLF Ecoregion	48.1	47.5	45.7

	Secchi (feet)				Chlorophyll-*a* (µg/L)				Total Phosphorus (µg/L)			
	Growing Season		Summer		Growing Season		Summer		Growing Season		Summer	
Year	Count	Mean	Count	Mean	Count	Mean	Count	Mean	Count	Mean	Count	Mean
1973	2	7.5	1	7.5					2	25.0	1.0	20.0
1974	3	8.2	1	6.1					4	45.0	1.0	30.0
1975												
1979	1	8.0	1	8.0	1	10.0	1	10.0	1	13.0	1.0	13.0
1989	1	12.1	1	12.1	3	5.7	3	5.7	3	14.3	3.0	14.3
1992	12	13.0	8	13.7					4	13.0	3.0	10.7
1994	2	13.6	2	13.6	2	3.9	2	3.9	1	15.0	1.0	15.0
1999	10	10.5	5	9.7								
2000	18	13.2	10	13.5	4	4.8	3	3.0	4	15.0	3.0	13.7
2001					2	3.5	2	3.5	3	15.3	3.0	15.3
2002					4	5.6	3	5.3	4	16.3	3.0	15.7
2009	4	13.3	3	12.0	3	7.4	3	7.4	5	19.6	4.0	20.5
2010	7	14.0	6	12.8	6	5.2	6	5.2	7	17.0	6.0	18.0
2011	7	11.9	5	9.9	7	7.5	6	7.9	8	19.9	6.0	17.8
2012	9	12.0	6	10.2	7	10.2	6	11.1	7	20.7	6.0	21.0
2013	4	12.0	4	12.0	3	8.0	3	8.0	4	16.7	4.0	16.7
2014	7	10.1	4	9.2	5	6.0	3	6.3	7	16.6	4.0	17.8
All Years (Weighted)		12.0		11.6		6.7		6.8		19.2		17.3
Deep, Lowland Drainage Lakes				8.5				7.0				23.0
NLF Ecoregion				8.9				5.6				21.0

July 2014 N:	424.0
July 2014 P:	16.9
Summer 2014 N:P	25 :1

D

APPENDIX D

Watershed Analysis WiLMS Results

Date: 10/7/2014 Scenario: Big Sand Lake Watershed Current

Lake Id: BigSand_WS_Current

Watershed Id: 0

Hydrologic and Morphometric Data

Tributary Drainage Area: 2772.0 acre
Total Unit Runoff: 14.00 in.
Annual Runoff Volume: 3234.0 acre-ft
Lake Surface Area <As>: 1434.0 acre
Lake Volume <V>: 17882.0 acre-ft
Lake Mean Depth <z>: 12.5 ft
Precipitation - Evaporation: 5.5 in.
Hydraulic Loading: 5439.7 acre-ft/year
Areal Water Load <qs>: 3.8 ft/year
Lake Flushing Rate <p>: 0.30 1/year
Water Residence Time: 3.29 year
Observed spring overturn total phosphorus (SPO): 18.0 mg/m^3
Observed growing season mean phosphorus (GSM): 17.3 mg/m^3
% NPS Change: 0%
% PS Change: 0%

NON-POINT SOURCE DATA

Land Use	Acre	Low	Most Likely	High	Loading %	Low	Most Likely	High
	(ac)	Loading (kg/ha-year)				Loading (kg/year)		
Row Crop AG	34.0	0.50	1.00	3.00	4.1	7	14	41
Mixed AG	0.0	0.30	0.80	1.40	0.0	0	0	0
Pasture/Grass	239.0	0.10	0.30	0.50	8.7	10	29	48
HD Urban (1/8 Ac)	1.0	1.00	1.50	2.00	0.2	0	1	1
MD Urban (1/4 Ac)	5.0	0.30	0.50	0.80	0.3	1	1	2
Rural Res (>1 Ac)	4.0	0.05	0.10	0.25	0.0	0	0	0
Wetlands	774.0	0.10	0.10	0.10	9.4	31	31	31
Forest	1715.0	0.05	0.09	0.18	18.8	35	62	125
Lake Surface	1434.0	0.10	0.30	1.00	52.4	58	174	580

POINT SOURCE DATA

Point Sources	Water Load (m^3/year)	Low (kg/year)	Most Likely (kg/year)	High (kg/year)	Loading %
Smoky Lake	1910000.0	0.0	19.5	0.0	5.9

SEPTIC TANK DATA

Description	Low	Most Likely	High	Loading %
Septic Tank Output (kg/capita-year)	0.30	0.50	0.80	
# capita-years	0.0			
% Phosphorus Retained by Soil	98.0	90.0	80.0	
Septic Tank Loading (kg/year)	0.00	0.00	0.00	0.0

TOTALS DATA

Description	Low	Most Likely	High	Loading %
Total Loading (lb)	312.4	731.8	1827.8	100.0
Total Loading (kg)	141.7	331.9	829.1	100.0
Areal Loading (lb/ac-year)	0.22	0.51	1.27	
Areal Loading (mg/m^2-year)	24.42	57.20	142.86	
Total PS Loading (lb)	0.0	43.0	0.0	5.9
Total PS Loading (kg)	0.0	19.5	0.0	5.9
Total NPS Loading (lb)	184.5	305.0	548.3	94.1
Total NPS Loading (kg)	83.7	138.3	248.7	94.1

Phosphorus Prediction and Uncertainty Analysis Module

Date: 10/7/2014 Scenario: Big Sand Lake Watershed Current
Observed spring overturn total phosphorus (SPO): 18.0 mg/m^3
Observed growing season mean phosphorus (GSM): 17.3 mg/m^3
Back calculation for SPO total phosphorus: 0.0 mg/m^3
Back calculation GSM phosphorus: 0.0 mg/m^3
% Confidence Range: 70%
Nurenberg Model Input - Est. Gross Int. Loading: 0 kg

Lake Phosphorus Model	Low Total P (mg/m^3)	Most Likely Total P (mg/m^3)	High Total P (mg/m^3)	Predicted -Observed (mg/m^3)	% Dif.
Walker, 1987 Reservoir	10	24	60	7	40
Canfield-Bachmann, 1981 Natural Lake	9	17	32	0	0
Canfield-Bachmann, 1981 Artificial Lake	10	17	30	0	0
Rechow, 1979 General	2	4	11	-13	-75
Rechow, 1977 Anoxic	13	29	73	12	69
Rechow, 1977 water load<50m/year	4	9	23	-8	-46
Rechow, 1977 water load>50m/year	N/A	N/A	N/A	N/A	N/A
Walker, 1977 General	9	20	51	2	11
Vollenweider, 1982 Combined OECD	8	16	34	-2	-11
Dillon-Rigler-Kirchner	5	12	30	-6	-33
Vollenweider, 1982 Shallow Lake/Res.	6	13	28	-5	-28
Larsen-Mercier, 1976	8	18	44	0	0
Nurnberg, 1984 Oxic	5	11	27	-6	-35

Lake Phosphorus Model	Confidence Lower Bound	Confidence Upper Bound	Parameter Fit?	Back Calculation (kg/year)	Model Type
Walker, 1987 Reservoir	13	48	Tw	0	GSM
Canfield-Bachmann, 1981 Natural Lake	5	49	FIT	1	GSM
Canfield-Bachmann, 1981 Artificial Lake	5	49	FIT	1	GSM
Rechow, 1979 General	2	9	L	0	GSM
Rechow, 1977 Anoxic	17	57	FIT	0	GSM
Rechow, 1977 water load<50m/year	5	18	FIT	0	GSM
Rechow, 1977 water load>50m/year	N/A	N/A	N/A	N/A	N/A
Walker, 1977 General	10	42	FIT	0	SPO
Vollenweider, 1982 Combined OECD	8	31	FIT	0	ANN
Dillon-Rigler-Kirchner	7	24	L qs	0	SPO
Vollenweider, 1982 Shallow Lake/Res.	6	25	FIT	0	ANN
Larsen-Mercier, 1976	11	35	P Pin	0	SPO
Nurnberg, 1984 Oxic	6	22	FIT	0	ANN

E

APPENDIX E

Aquatic Plant Survey Data

Point Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	ID	Lake Name	County	Date	Field Crew	Point Number	Depth (ft)	Sediment	Pole; Rope	Comments	Notes	Nuisance	Total Rake Fullness	Myriophyllum spicatum	Brasenia schreberi	Bidens beckii	Ceratophyllum demersum	Chara spp.	Eleocharis acicularis	Eleocharis palustris	Elodea canadensis	Eriocaulon aquaticum	Heteranthera dubia	Isoetes spp.	Juncus pelocarpus	Myriophyllum sibiricum	Myriophyllum tenellum	Najas flexilis	Najas guadalupensis	Nuphar variegata	Nymphaea odorata	Potamogeton amplifolius	Potamogeton berchtoldii	Potamogeton foliosus	Potamogeton gramineus	Potamogeton illinoensis	Potamogeton praelongus	Potamogeton richardsonii	Potamogeton robbinsii	Potamogeton spirillus	Potamogeton strictifolius	Potamogeton zosteriformis	Sagittaria sp. (rosette)	Schoenoplectus acutus	Schoenoplectus tabernaemontani	Sparganium fluctuans	Utricularia intermedia	Utricularia vulgaris	Vallisneria americana	Potamogeton amplifolius x praelongus	Potamogeton praelongus x illinoensis	Aquatic moss
1	46.045146	-89.007679	145	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	1	0			NONNAVIGABLE (PLANTS)																																													
2	46.058815	-89.006399	426	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	2	3	Muck	Pole	SAMPLED			1				1												1	1																1	1						
3	46.058096	-89.006412	427	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	3	0			NONNAVIGABLE (PLANTS)																																													
4	46.047297	-89.006606	162	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	4	0			NONNAVIGABLE (PLANTS)																																													
5	46.046577	-89.006619	153	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	5	0			NONNAVIGABLE (PLANTS)																																													
6	46.045857	-89.006632	146	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	6	0			NONNAVIGABLE (PLANTS)																																													
7	46.060246	-89.005340	424	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	7	3	Muck	Pole	SAMPLED			3	1																											3												
8	46.059526	-89.005352	425	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	8	4	Muck	Pole	SAMPLED			2																											2												
9	46.058806	-89.005365	428	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	9	4	Muck	Pole	SAMPLED			2																											2												
10	46.058087	-89.005378	429	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	10	4	Muck	Pole	SAMPLED			2																	1										2												
11	46.057367	-89.005391	430	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	11	3	Muck	Pole	SAMPLED			3																											3												
12	46.056647	-89.005404	431	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	12	0			NONNAVIGABLE (PLANTS)																																													
13	46.050167	-89.005520	188	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	13	0			NONNAVIGABLE (PLANTS)																																													
14	46.049448	-89.005533	187	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	14	3	Rock	Pole	SAMPLED			3				1	2												1		1															1						
15	46.048728	-89.005546	186	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	15	4	Muck	Pole	SAMPLED			3				1				2																	2								1						
16	46.048008	-89.005559	163	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	16	3	Muck	Pole	SAMPLED			2																	2		1								2												
17	46.047288	-89.005572	161	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	17	0			NONNAVIGABLE (PLANTS)																																													
18	46.046568	-89.005585	152	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	18	0			NONNAVIGABLE (PLANTS)																																													
19	46.045848	-89.005598	149	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	19	0			NONNAVIGABLE (PLANTS)																																													
20	46.061677	-89.004280	423	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	20	3	Sand	Pole	SAMPLED			1	1																1																	1						
21	46.060957	-89.004292	422	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	21	4	Muck	Pole	SAMPLED			2								1																	2												
22	46.060237	-89.004305	421	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	22	4	Muck	Pole	SAMPLED			3								1																	2												
23	46.059517	-89.004318	420	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	23	4	Muck	Pole	SAMPLED			3	3															1										1												
24	46.058797	-89.004331	419	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	24	5	Muck	Pole	SAMPLED			2																							1		1												
25	46.058078	-89.004344	418	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	25	4	Muck	Pole	SAMPLED			3																									3												
26	46.057358	-89.004357	417	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	26	5	Muck	Pole	SAMPLED			3																									3												
27	46.056638	-89.004370	416	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	27	4	Sand	Pole	SAMPLED			1						1																			1												
28	46.055918	-89.004383	415	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	28	3	Sand	Pole	SAMPLED			1						1		1																														
29	46.051598	-89.004461	210	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	29	4	Muck	Pole	SAMPLED			2																	2																						
30	46.050878	-89.004474	209	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	30	4	Muck	Pole	SAMPLED			0																																						
31	46.050158	-89.004487	189	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	31	3	Muck	Pole	SAMPLED			1																									1												
32	46.049439	-89.004499	184	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	32	4	Muck	Pole	SAMPLED			2								1								1										2												
33	46.048719	-89.004512	185	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	33	4	Muck	Pole	SAMPLED			2								1								1		1								2												
34	46.047999	-89.004525	164	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	34	3	Muck	Pole	SAMPLED			2																							1		2												
35	46.047279	-89.004538	160	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	35	3	Muck	Pole	SAMPLED			3								1					1												3								1				
36	46.046559	-89.004551	151	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	36	2	Muck	Pole	SAMPLED			2								1									1								1								1				
37	46.045839	-89.004564	148	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	37	0			NONNAVIGABLE (PLANTS)																																													
38	46.062388	-89.003232	404	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	38	4	Muck	Pole	SAMPLED			2								1																	1												
39	46.061668	-89.003245	405	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	39	5	Muck	Pole	SAMPLED			2	1																									1												
40	46.060948	-89.003258	406	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	40	5	Muck	Pole	SAMPLED			2								1																	2									1			
41	46.060228	-89.003271	407	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	41	5	Muck	Pole	SAMPLED			2																									2												
42	46.059508	-89.003284	408	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	42	5	Muck	Pole	SAMPLED			2	V																									2												
43	46.058788	-89.003297	409	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	43	5	Muck	Pole	SAMPLED			2																									2												
44	46.058068	-89.003310	410	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	44	6	Muck	Pole	SAMPLED			3								1																	3												
45	46.057349	-89.003323	411	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	45	5	Muck	Pole	SAMPLED			3								1															1		2												
46	46.056629	-89.003336	412	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	46	4	Muck	Pole	SAMPLED			2																									2												
47	46.055909	-89.003349	413	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	47	4	Muck	Pole	SAMPLED			3	V																									3												
48	46.055189	-89.003362	414	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	48	3	Sand	Pole	SAMPLED			1	1	1																				1																
49	46.054469	-89.003375	432	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	49	2	Sand	Pole	SAMPLED			1																	1																						
50	46.051589	-89.003427	211	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	50	4	Muck	Pole	SAMPLED			3																	3										1												
51	46.050869	-89.003440	208	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	51	4	Muck	Pole	SAMPLED			3								1									3										2												
52	46.050149	-89.003453	190	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	52	4	Muck	Pole	SAMPLED			2																	2										2												
53	46.049430	-89.003466	183	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	53	4	Muck	Pole	SAMPLED			2								1									1										2												
54	46.048710	-89.003479	182	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	54	4	Muck	Pole	SAMPLED			3								1									1										2								1				
55	46.047990	-89.003491	165	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	55	4	Muck	Pole	SAMPLED			3																	1										3												
56	46.047270	-89.003504	159	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	56	4	Muck	Pole	SAMPLED			3								1									1										3												
57	46.046550	-89.003517	154	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	57	3	Muck	Pole	SAMPLED			2								1									1										2												
58	46.045830	-89.003530	147	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	58	4	Muck	Pole	SAMPLED			0																																							
59	46.063099	-89.002185	403	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	59	4	Muck	Pole	SAMPLED			2																							1		2												
60	46.062379	-89.002198	402	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	60	5	Muck	Pole	SAMPLED			3																									3												
61	46.061659	-89.002211	401	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	61	5	Muck	Pole	SAMPLED			3																							1		3												
62	46.060939	-89.002224	400	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	62	5	Muck	Pole	SAMPLED			2																							1		2									1			
63	46.060219	-89.002237	399	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	63	5	Muck	Pole	SAMPLED			3																									3												
64	46.059499	-89.002250	398	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	64	5	Muck	Pole	SAMPLED			3																									3												
65	46.058779	-89.002263	397	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	65	5	Muck	Pole	SAMPLED			3			1					1									1										3												
66	46.058059	-89.002276	396	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	66	7	Muck	Pole	SAMPLED			3																									3												
67	46.057340	-89.002289	395	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	67	5	Muck	Pole	SAMPLED			1																									1												
68	46.056620	-89.002302	394	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	68	5	Muck	Pole	SAMPLED			3																							2		1												
69	46.055900	-89.002315	393	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	69	4	Muck	Pole	SAMPLED			3																									3												
70	46.055180	-89.002328	392	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	70	4	Muck	Pole	SAMPLED			2																									2												

Point Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	ID	Lake Name	County	Date	Field Crew	Point Number	Depth (ft)	Sediment	Pole; Rope	Comments	Notes	Nuisance	Total Rake Fullness	Myriophyllum spicatum	Brasenia schreberi	Bidens beckii	Ceratophyllum demersum	Chara spp.	Eleocharis acicularis	Eleocharis palustris	Elodea canadensis	Eriocaulon aquaticum	Heteranthera dubia	Isoetes spp.	Juncus pelocarpus	Myriophyllum sibiricum	Myriophyllum tenellum	Najas flexilis	Najas guadalupensis	Nuphar variegata	Nymphaea odorata	Potamogeton amplifolius	Potamogeton berchtoldii	Potamogeton foliosus	Potamogeton gramineus	Potamogeton illinoensis	Potamogeton praelongus	Potamogeton richardsonii	Potamogeton robbinsii	Potamogeton spirillus	Potamogeton strictifolius	Potamogeton zosteriformis	Sagittaria sp. (rosette)	Schoenoplectus acutus	Schoenoplectus tabernaemontani	Sparganium fluctuans	Utricularia intermedia	Utricularia vulgaris	Vallisneria americana	Potamogeton amplifolius x praelongus	Potamogeton praelongus x illinoensis	Aquatic moss
71	46.054460	-89.002341	433	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	71	3	Sand	Pole	SAMPLED			1																									1																
72	46.053740	-89.002354	448	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	72	2	Sand	Pole	SAMPLED			1		1																																							
73	46.053020	-89.002367	449	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	73	2	Sand	Pole	SAMPLED			2								1								1										1						1								
74	46.052300	-89.002380	465	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	74	4	Muck	Pole	SAMPLED			2								1								2										1														
75	46.051580	-89.002393	212	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	75	4	Muck	Pole	SAMPLED			2																2										1														
76	46.050860	-89.002406	207	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	76	4	Muck	Pole	SAMPLED			3								1								3								1		1														
77	46.050140	-89.002419	191	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	77	5	Muck	Pole	SAMPLED			3								2																		3														
78	46.049421	-89.002432	180	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	78	4	Muck	Pole	SAMPLED			3								1								1										3												1		
79	46.048701	-89.002445	181	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	79	4	Muck	Pole	SAMPLED			3								1								2									1	3														
80	46.047981	-89.002458	166	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	80	4	Muck	Pole	SAMPLED			3								1								1										3													1	
81	46.047261	-89.002471	158	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	81	3	Muck	Pole	SAMPLED			3																2										3										1				
82	46.046541	-89.002483	155	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	82	3	Muck	Pole	SAMPLED			2								1								1										2														
83	46.045821	-89.002496	150	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	83	0			NONNAVIGABLE (PLANTS)																																												
84	46.064530	-89.001125	143	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	84	2	Sand	Pole	SAMPLED			1																										1														
85	46.063810	-89.001138	144	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	85	4	Muck	Pole	SAMPLED			2																										2														
86	46.063090	-89.001151	380	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	86	5	Muck	Pole	SAMPLED			3								1																		3														
87	46.062370	-89.001164	381	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	87	5	Muck	Pole	SAMPLED			2																										2														
88	46.061650	-89.001177	382	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	88	5	Muck	Pole	SAMPLED			1																										1												1		
89	46.060930	-89.001190	383	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	89	5	Muck	Pole	SAMPLED			1																										1														
90	46.060210	-89.001203	384	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	90	5	Muck	Pole	SAMPLED			1																										1														
91	46.059490	-89.001216	385	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	91	5	Muck	Pole	SAMPLED			2																										2														
92	46.058770	-89.001229	386	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	92	8	Muck	Pole	SAMPLED			2	V				1																				1				1										
93	46.058050	-89.001242	387	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	93	10	Muck	Pole	SAMPLED			2																										1				2										
94	46.057331	-89.001255	388	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	94	7	Muck	Pole	SAMPLED			3					1																				1		2														
95	46.056611	-89.001268	389	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	95	5	Muck	Pole	SAMPLED			1																										1														
96	46.055891	-89.001281	390	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	96	5	Muck	Pole	SAMPLED			3								1																1		3														
97	46.055171	-89.001294	391	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	97	4	Muck	Pole	SAMPLED			2																										2														
98	46.054451	-89.001307	434	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	98	4	Muck	Pole	SAMPLED			1																										1														
99	46.053731	-89.001320	447	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	99	5	Sand	Pole	SAMPLED			0																																							
100	46.053011	-89.001333	450	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	100	4	Sand	Pole	SAMPLED			1						1										1										1				1										
101	46.052291	-89.001346	464	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	101	2	Sand	Pole	SAMPLED			1									1																				1														
102	46.051571	-89.001359	213	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	102	3	Sand	Pole	SAMPLED			3																										3														
103	46.050851	-89.001372	206	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	103	4	Muck	Pole	SAMPLED			2								1																		2														
104	46.050131	-89.001385	192	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	104	5	Muck	Pole	SAMPLED			2								1								1										2														
105	46.049411	-89.001398	179	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	105	4	Muck	Pole	SAMPLED			3								1								1										3														
106	46.048692	-89.001411	178	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	106	4	Muck	Pole	SAMPLED			3																3										2														
107	46.047972	-89.001424	167	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	107	4	Muck	Pole	SAMPLED			2																1										2														
108	46.047252	-89.001437	157	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	108	4	Muck	Pole	SAMPLED			3																3										1														
109	46.046532	-89.001450	156	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	109	3	Muck	Pole	SAMPLED			2								2								1										2														
110	46.064521	-89.000091	142	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	110	3	Sand	Pole	SAMPLED			1																							1												1				
111	46.063801	-89.000104	141	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	111	5	Muck	Pole	SAMPLED			2								1																		2														
112	46.063081	-89.000117	379	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	112	5	Muck	Pole	SAMPLED			3								2																		2														
113	46.062361	-89.000130	378	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	113	5	Muck	Pole	SAMPLED			3																										3												1		
114	46.061641	-89.000143	377	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	114	5	Muck	Pole	SAMPLED			2								1																		2														
115	46.060921	-89.000156	376	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	115	5	Muck	Pole	SAMPLED			2																								1		1														
116	46.060201	-89.000169	375	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	116	6	Muck	Pole	SAMPLED			2								1																1		2				1										
117	46.059481	-89.000182	374	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	117	8	Muck	Pole	SAMPLED			3																										2				1										
118	46.058761	-89.000195	373	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	118	12	Muck	Pole	SAMPLED			2																													2										
119	46.058041	-89.000208	372	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	119	6	Muck	Pole	SAMPLED			2																										2														
120	46.057321	-89.000221	371	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	120	5	Muck	Pole	SAMPLED			3								2																		2														
121	46.056602	-89.000234	370	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	121	4	Muck	Pole	SAMPLED			3																								1		1												1		
122	46.055882	-89.000247	369	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	122	5	Muck	Pole	SAMPLED			2																								1		1														
123	46.055162	-89.000260	368	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	123	4	Muck	Pole	SAMPLED			3																1										3														
124	46.054442	-89.000273	435	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	124	5	Muck	Pole	SAMPLED			2																1										2														
125	46.053722	-89.000286	446	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	125	3	Sand	Pole	SAMPLED			1					1								1																1										
126	46.053002	-89.000299	451	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	126	3	Sand	Pole	SAMPLED			1								1								1										1														
127	46.052282	-89.000312	463	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	127	2	Sand	Pole	SAMPLED			1																		1									1														
128	46.051562	-89.000325	214	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	128	4	Muck	Pole	SAMPLED			2																										2														
129	46.050842	-89.000338	205	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	129	4	Muck	Pole	SAMPLED			2								1																1		2														
130	46.050122	-89.000351	193	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	130	4	Muck	Pole	SAMPLED			3								2								1										3														
131	46.049402	-89.000364	177	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	131	4	Muck	Pole	SAMPLED			2																2										1														
132	46.048683	-89.000377	169	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	132	3	Muck	Pole	SAMPLED			3																2										3														
133	46.047963	-89.000390	168	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	133	4	Muck	Pole	SAMPLED			0																																							
134	46.064512	-88.999057	139	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	134	6	Muck	Pole	SAMPLED			3								1																		3														
135	46.063792	-88.999070	140	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	135	5	Muck	Pole	SAMPLED			3								3																		3														
136	46.063072	-88.999083	356	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	136	6	Muck	Pole	SAMPLED			2								1																		1												1		
137	46.062352	-88.999096	357	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	137	7	Muck	Pole	SAMPLED			3																										3														
138	46.061632	-88.999109	358	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	138	7	Muck	Pole	SAMPLED			2																										2														
139	46.060912	-88.999122	359	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	139	8	Muck	Pole	SAMPLED			3																										2						1								
140	46.060192	-88.999135	360	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	140	9	Muck	Pole	SAMPLED			2					1																			1					2										

Point Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	ID	Lake Name	County	Date	Field Crew	Point Number	Depth (ft)	Sediment	Pole; Rope	Comments	Notes	Nuisance	Total Rake Fullness	Myriophyllum spicatum	Brasenia schreberi	Bidens beckii	Ceratophyllum demersum	Chara spp.	Eleocharis acicularis	Eleocharis palustris	Elodea canadensis	Eriocaulon aquaticum	Heteranthera dubia	Isoetes spp.	Juncus pelocarpus	Myriophyllum sibiricum	Myriophyllum tenellum	Najas flexilis	Najas guadalupensis	Nuphar variegata	Nymphaea odorata	Potamogeton amplifolius	Potamogeton berchtoldii	Potamogeton foliosus	Potamogeton gramineus	Potamogeton illinoensis	Potamogeton praelongus	Potamogeton richardsonii	Potamogeton robbinsii	Potamogeton spirillus	Potamogeton strictifolius	Potamogeton zosteriformis	Sagittaria sp. (rosette)	Schoenoplectus acutus	Schoenoplectus tabernaemontani	Sparganium fluctuans	Utricularia intermedia	Utricularia vulgaris	Vallisneria americana	Potamogeton amplifolius x praelongus	Potamogeton praelongus x illinoensis	Aquatic moss
141	46.059472	-88.999148	361	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	141	9	Muck	Pole	SAMPLED			3																							1					2														
142	46.058752	-88.999161	362	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	142	6	Muck	Pole	SAMPLED			3								1																	3			1												
143	46.058032	-88.999174	363	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	143	6	Muck	Pole	SAMPLED			1																									1														
144	46.057312	-88.999187	364	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	144	5	Muck	Pole	SAMPLED			2																									2														
145	46.056593	-88.999200	365	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	145	5	Muck	Pole	SAMPLED			1																									1														
146	46.055873	-88.999213	366	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	146	5	Muck	Pole	SAMPLED			1																									1														
147	46.055153	-88.999226	367	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	147	5	Muck	Pole	SAMPLED			2																									2														
148	46.054433	-88.999239	436	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	148	4	Sand	Pole	SAMPLED			2																1									2														
149	46.053713	-88.999252	445	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	149	5	Sand	Pole	SAMPLED			1																									1														
150	46.052993	-88.999265	452	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	150	4	Muck	Pole	SAMPLED			2																1									1														
151	46.052273	-88.999278	462	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	151	3	Sand	Pole	SAMPLED			2								1																	1														
152	46.051553	-88.999291	215	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	152	4	Muck	Pole	SAMPLED			1								1																	1														
153	46.050833	-88.999304	204	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	153	4	Muck	Pole	SAMPLED			1																									1														
154	46.050113	-88.999317	194	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	154	4	Muck	Pole	SAMPLED			2																1									2												1		
155	46.049393	-88.999330	176	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	155	4	Muck	Pole	SAMPLED			3																									3														
156	46.048674	-88.999343	170	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	156	0			NONNAVIGABLE (PLANTS)																																											
157	46.065222	-88.998009	138	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	157	7	Muck	Pole	SAMPLED			3	V			2																			1		2														
158	46.064502	-88.998023	137	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	158	7	Muck	Pole	SAMPLED			2								1																	1														
159	46.063783	-88.998036	136	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	159	8	Muck	Pole	SAMPLED			3				1				1															2		2														
160	46.063063	-88.998049	355	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	160	10	Muck	Pole	SAMPLED			3				2																			1		1				1								
161	46.062343	-88.998062	354	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	161	10	Muck	Pole	SAMPLED			2				1																					2														
162	46.061623	-88.998075	353	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	162	10	Muck	Pole	SAMPLED			3																							1		2			1									
163	46.060903	-88.998088	352	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	163	10	Muck	Pole	SAMPLED			3				3																			1		1														
164	46.060183	-88.998101	351	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	164	12	Muck	Pole	SAMPLED			3				1																					1			2									
165	46.059463	-88.998114	350	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	165	8	Muck	Pole	SAMPLED			3								1																	2														
166	46.058743	-88.998127	349	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	166	6	Muck	Pole	SAMPLED			2																									2														
167	46.058023	-88.998140	348	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	167	5	Muck	Pole	SAMPLED			2																1									2														
168	46.057303	-88.998153	347	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	168	5	Muck	Pole	SAMPLED			1								1															1		1														
169	46.056583	-88.998166	346	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	169	5	Muck	Pole	SAMPLED			3																									3														
170	46.055864	-88.998179	345	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	170	5	Muck	Pole	SAMPLED			2																									2														
171	46.055144	-88.998192	344	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	171	6	Muck	Pole	SAMPLED			3																1									3														
172	46.054424	-88.998205	437	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	172	4	Sand	Pole	SAMPLED			3																1								1	2														
173	46.053704	-88.998218	444	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	173	4	Muck	Pole	SAMPLED		YES	3								1																	1														
174	46.052984	-88.998231	453	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	174	4	Muck	Pole	SAMPLED			1								1																																
175	46.052264	-88.998244	461	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	175	4	Muck	Pole	SAMPLED			0																																						
176	46.051544	-88.998257	216	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	176	4	Muck	Pole	SAMPLED			1																									1														
177	46.050824	-88.998270	203	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	177	4	Muck	Pole	SAMPLED			1								1								1									1														
178	46.050104	-88.998283	195	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	178	4	Muck	Pole	SAMPLED			1																1									1														
179	46.049384	-88.998296	175	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	179	3	Muck	Pole	SAMPLED			3																2									2														
180	46.048664	-88.998309	171	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	180	2	Muck	Pole	SAMPLED			2								1																	2		1												
181	46.066653	-88.996949	131	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	181	3	Rock	Pole	SAMPLED			0																																						
182	46.065933	-88.996962	132	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	182	9	Muck	Pole	SAMPLED			3				1																					3														
183	46.065213	-88.996975	133	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	183	9	Muck	Pole	SAMPLED			3				1																					3							2						
184	46.064493	-88.996988	134	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	184	11	Muck	Pole	SAMPLED			3																							1		1					2							
185	46.063773	-88.997001	135	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	185	12	Muck	Pole	SAMPLED			2				2																					1														
186	46.063054	-88.997014	333	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	186	11	Muck	Pole	SAMPLED			3				1																										2							
187	46.062334	-88.997027	334	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	187	13	Muck	Pole	SAMPLED			2								1																	2														
188	46.061614	-88.997040	335	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	188	13	Muck	Pole	SAMPLED			2																								1	1							1						
189	46.060894	-88.997053	336	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	189	14	Muck	Pole	SAMPLED			2				1																					1							1						
190	46.060174	-88.997067	337	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	190	10	Muck	Pole	SAMPLED			3	2			2																										1							
191	46.059454	-88.997080	338	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	191	8	Muck	Pole	SAMPLED			2								1																	1							1						
192	46.058734	-88.997093	339	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	192	5	Muck	Pole	SAMPLED			2								1																	2							1						
193	46.058014	-88.997106	340	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	193	5	Muck	Pole	SAMPLED			1																									1														
194	46.057294	-88.997119	341	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	194	4	Muck	Pole	SAMPLED			1								1																	1														
195	46.056574	-88.997132	342	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	195	5	Muck	Pole	SAMPLED			2								1																	2														
196	46.055854	-88.997145	343	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	196	5	Muck	Pole	SAMPLED			3																									3														
197	46.054415	-88.997171	438	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	197	5	Muck	Pole	SAMPLED			2																									2														
198	46.053695	-88.997184	443	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	198	4	Muck	Pole	SAMPLED			2																									1														
199	46.052975	-88.997197	454	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	199	4	Muck	Pole	SAMPLED																																									
200	46.052255	-88.997210	460	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	200	3	Muck	Pole	SAMPLED			2																									2														
201	46.051535	-88.997223	469	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	201	2	Muck	Pole	SAMPLED			2																									1												1		
202	46.050815	-88.997236	202	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	202	3	Muck	Pole	SAMPLED			2																									2														
203	46.050095	-88.997249	196	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	203	3	Muck	Pole	SAMPLED			0																																						
204	46.049375	-88.997262	174	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	204	3	Muck	Pole	SAMPLED			2																									2														
205	46.048655	-88.997275	172	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	205	3	Muck	Pole	SAMPLED			2																1		1							2												1		
206	46.066644	-88.995915	130	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	206	9	Muck	Pole	SAMPLED			2				1												1									1														
207	46.065924	-88.995928	129	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	207	10	Muck	Pole	SAMPLED			2																									2		1												
208	46.065204	-88.995941	128	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	208	14	Muck	Pole	SAMPLED			3				2																					2			1									
209	46.064484	-88.995954	127	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	209	14	Muck	Pole	SAMPLED			2				1																					1			2									
210	46.063764	-88.995967	126	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	210	14	Muck	Pole	SAMPLED			2				1																					2			1									

Point Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	ID	Lake Name	County	Date	Field Crew	Point Number	Depth (ft)	Sediment	Pole; Rope	Comments	Notes	Nuisance	Total Rake Fullness	Myriophyllum spicatum	Brasenia schreberi	Bidens beckii	Ceratophyllum demersum	Chara spp.	Eleocharis acicularis	Eleocharis palustris	Elodea canadensis	Eriocaulon aquaticum	Heteranthera dubia	Isoetes spp.	Juncus pelocarpus	Myriophyllum sibiricum	Myriophyllum tenellum	Najas flexilis	Najas guadalupensis	Nuphar variegata	Nymphaea odorata	Potamogeton amplifolius	Potamogeton berchtoldii	Potamogeton foliosus	Potamogeton gramineus	Potamogeton illinoensis	Potamogeton praelongus	Potamogeton richardsonii	Potamogeton robbinsii	Potamogeton spirillus	Potamogeton strictifolius	Potamogeton zosteriformis	Sagittaria sp. (rosette)	Schoenoplectus acutus	Schoenoplectus tabernaemontani	Sparganium fluctuans	Utricularia intermedia	Utricularia vulgaris	Vallisneria americana	Potamogeton amplifolius x praelongus	Potamogeton praelongus x illinoensis	Aquatic moss
211	46.063044	-88.995980	332	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	211	14	Muck	Pole	SAMPLED			3				2																			1				1													
212	46.062325	-88.995993	331	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	212	11	Muck	Pole	SAMPLED			3				2																			1																	
213	46.061605	-88.996006	330	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	213	13	Muck	Pole	SAMPLED			3				2																				1				1												
214	46.060885	-88.996019	329	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	214	14	Muck	Pole	SAMPLED			1																								1				1												
215	46.060165	-88.996032	328	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	215	12	Muck	Pole	SAMPLED			3				1																			1		1				1												
216	46.059445	-88.996045	327	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	216	9	Muck	Pole	SAMPLED			3	V																					3		1																
217	46.058725	-88.996059	326	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	217	6	Muck	Pole	SAMPLED			2																							1																
218	46.058005	-88.996072	325	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	218	5	Muck	Pole	SAMPLED			3																							2															1	
219	46.057285	-88.996085	324	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	219	5	Muck	Pole	SAMPLED			2																							1				1												
220	46.056565	-88.996098	323	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	220	5	Muck	Pole	SAMPLED			2								1															1																
221	46.055845	-88.996111	322	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	221	5	Muck	Pole	SAMPLED			2																							2																
222	46.054406	-88.996137	439	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	222	4	Muck	Pole	SAMPLED			1																							1																
223	46.053686	-88.99615	442	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	223	3	Muck	Pole	SAMPLED			1																							1																
224	46.052966	-88.996163	455	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	224	3	Muck	Pole	SAMPLED			1																							1																
225	46.052246	-88.996176	459	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	225	3	Muck	Pole	SAMPLED			2																							2																
226	46.051526	-88.996189	468	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	226	2	Muck	Pole	SAMPLED			0																																								
227	46.050806	-88.996202	201	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	227	3	Muck	Pole	SAMPLED			2																							2				1												
228	46.050086	-88.996215	197	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	228	3	Muck	Pole	SAMPLED			0																																							
229	46.049366	-88.996228	173	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	229	2	Muck	Pole	SAMPLED			1																	1							1																
230	46.067355	-88.994868	120	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	230	2	Rock	Pole	SAMPLED			0																																							
231	46.066635	-88.994881	121	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	231	11	Muck	Pole	SAMPLED			2																							2		1		1												1
232	46.065915	-88.994894	122	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	232	15	Muck	Pole	SAMPLED			2				1				1															1				1												
233	46.065195	-88.994907	123	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	233	16		Rope	SAMPLED			3				3																							2												
234	46.064475	-88.99492	124	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	234	16		Rope	SAMPLED			3				1				1								1							3				2												
235	46.063755	-88.994933	125	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	235	16		Rope	SAMPLED			2	1							1															2																
236	46.063035	-88.994946	312	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	236	17		Rope	SAMPLED			1				1				1															1				1												
237	46.062315	-88.994959	313	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	237	17		Rope	SAMPLED			3				2				1													1				2				1										
238	46.061596	-88.994972	314	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	238	17		Rope	SAMPLED			2				2				1															1				1												
239	46.060876	-88.994985	315	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	239	15		Rope	SAMPLED			3				2																			1						1		1								
240	46.060156	-88.994998	316	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	240	12	Muck	Pole	SAMPLED			3				1																							3												
241	46.059436	-88.995011	317	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	241	9	Muck	Pole	SAMPLED			2	2			1																			1				1												
242	46.058716	-88.995024	318	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	242	9	Muck	Pole	SAMPLED			2																							1		2												
243	46.057996	-88.995037	319	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	243	7	Muck	Pole	SAMPLED			2																							2															1	
244	46.057276	-88.995051	320	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	244	5	Muck	Pole	SAMPLED			3								1															3															
245	46.056556	-88.995064	321	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	245	6	Muck	Pole	SAMPLED			3								1															1		2				1									
246	46.054396	-88.995103	440	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	246	3	Muck	Pole	SAMPLED			1		1																					1															
247	46.053677	-88.995116	441	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	247	3	Muck	Pole	SAMPLED			1																							1															
248	46.052957	-88.995129	456	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	248	3	Muck	Pole	SAMPLED			1																1																						
249	46.052237	-88.995142	458	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	249	3	Muck	Pole	SAMPLED			1																							1															
250	46.051517	-88.995155	466	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	250	1	Muck	Pole	SAMPLED			2																							2															
251	46.050797	-88.995168	200	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	251	3	Muck	Pole	SAMPLED			1																							1															
252	46.050077	-88.995181	198	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	252	2	Muck	Pole	SAMPLED			1																							1															
253	46.067346	-88.993833	119	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	253	2	Rock	Pole	SAMPLED			0																																							
254	46.066626	-88.993846	118	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	254	15		Rope	SAMPLED			3				3																			1															
255	46.065906	-88.99386	117	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	255	16		Rope	SAMPLED			1																							1															
256	46.065186	-88.993873	116	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	256	16		Rope	SAMPLED			1								1																															
257	46.064466	-88.993886	115	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	257	16		Rope	SAMPLED			0																																							
258	46.063746	-88.993899	114	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	258	16		Rope	SAMPLED			1								1															1															
259	46.063026	-88.993912	311	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	259	18		Rope	SAMPLED			0																																							
260	46.062306	-88.993925	310	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	260	18		Rope	SAMPLED			2				1				1																															
261	46.061586	-88.993938	309	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	261	17		Rope	SAMPLED			2				1				1															1				1												
262	46.060867	-88.993951	308	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	262	17		Rope	SAMPLED			1																					1				1				1										
263	46.060147	-88.993964	307	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	263	14	Muck	Pole	SAMPLED			2				1																			1				1												
264	46.059427	-88.993977	306	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	264	11	Muck	Pole	SAMPLED			3				2																							1												
265	46.058707	-88.99399	305	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	265	10	Muck	Pole	SAMPLED			3				3																			1				1												
266	46.057987	-88.994003	304	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	266	9	Muck	Pole	SAMPLED			3								1															3															
267	46.057267	-88.994016	303	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	267	5	Muck	Pole	SAMPLED			2																							2															1	
268	46.056547	-88.99403	302	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	268	5	Muck	Pole	SAMPLED			3																							1		3												
269	46.052228	-88.994108	457	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	269	2	Muck	Pole	SAMPLED			1																				1				1														
270	46.051508	-88.994121	467	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	270	0			SHALLOW																																										
271	46.050788	-88.994134	199	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	271	0			NONNAVIGABLE (PLANTS)																																													
272	46.067337	-88.992799	108	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	272	7	Sand	Pole	SAMPLED			2			1													2																						
273	46.066617	-88.992812	109	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	273	16		Rope	SAMPLED			0																																							
274	46.065897	-88.992825	110	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	274	17		Rope	SAMPLED			0																																							
275	46.065177	-88.992838	111	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	275	16		Rope	SAMPLED			1																							1															
276	46.064457	-88.992851	112	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	276	16		Rope	SAMPLED			1																							1															
277	46.063737	-88.992865	113	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	277	16		Rope	SAMPLED			0																																							
278	46.063017	-88.992878	292	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	278	19		Rope	SAMPLED			0																																							
279	46.062297	-88.992891	293	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	279	19		Rope	SAMPLED			0																																							
280	46.061577	-88.992904	294	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	280	18		Rope	SAMPLED			0																																							

Point Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	ID	Lake Name	County	Date	Field Crew	Point Number	Depth (ft)	Sediment	Pole; Rope	Comments	Notes	Nuisance	Total Rake Fullness	Myriophyllum spicatum	Brasenia schreberi	Bidens beckii	Ceratophyllum demersum	Chara spp.	Eleocharis acicularis	Eleocharis palustris	Elodea canadensis	Eriocaulon aquaticum	Heteranthera dubia	Isoetes spp.	Juncus pelocarpus	Myriophyllum sibiricum	Myriophyllum tenellum	Najas flexilis	Najas guadalupensis	Nuphar variegata	Nymphaea odorata	Potamogeton amplifolius	Potamogeton berchtoldii	Potamogeton foliosus	Potamogeton gramineus	Potamogeton illinoensis	Potamogeton praelongus	Potamogeton richardsonii	Potamogeton robbinsii	Potamogeton spirillus	Potamogeton strictifolius	Potamogeton zosteriformis	Sagittaria sp. (rosette)	Schoenoplectus acutus	Schoenoplectus tabernaemontani	Sparganium fluctuans	Utricularia intermedia	Utricularia vulgaris	Vallisneria americana	Potamogeton amplifolius x praelongus	Potamogeton praelongus x illinoensis	Aquatic moss
281	46.060857	-88.992917	295	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	281	17		Rope	SAMPLED			1				1				1							1											1																	
282	46.060138	-88.99293	296	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	282	11	Muck	Pole	SAMPLED			2				2																					1				1													
283	46.059418	-88.992943	297	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	283	10	Muck	Pole	SAMPLED			2				1				1																	1		1				1									
284	46.058698	-88.992956	298	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	284	9	Muck	Pole	SAMPLED			3								1																			3													
285	46.057978	-88.992969	299	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	285	7	Muck	Pole	SAMPLED			3								1																			3													
286	46.057258	-88.992982	300	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	286	5	Muck	Pole	SAMPLED			2																									1		1				1									
287	46.056538	-88.992995	301	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	287	5	Muck	Pole	SAMPLED			3																											3													
288	46.067328	-88.991765	107	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	288	10	Sand	Pole	SAMPLED			2																1										1	1												
289	46.066608	-88.991778	106	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	289	17		Rope	SAMPLED			0																																							
290	46.065888	-88.991791	105	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	290	17		Rope	SAMPLED			1								1																															
291	46.065168	-88.991804	104	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	291	17		Rope	SAMPLED			0																																							
292	46.064448	-88.991817	103	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	292	17		Rope	SAMPLED			0																																							
293	46.063728	-88.99183	102	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	293	17		Rope	SAMPLED			1								1																			1													
294	46.063008	-88.991844	291	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	294	20		Rope	SAMPLED			0																																						
295	46.062288	-88.991857	290	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	295	20		Rope	SAMPLED			0																																						
296	46.061568	-88.99187	289	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	296	20		Rope	SAMPLED			0																																						
297	46.060848	-88.991883	288	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	297	18		Rope	SAMPLED			1								1																			1													
298	46.060128	-88.991896	287	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	298	11	Muck	Pole	SAMPLED			3				2																					1				1									
299	46.059409	-88.991909	286	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	299	10	Muck	Pole	SAMPLED			3																									2		1				1									
300	46.058689	-88.991922	285	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	300	9	Muck	Pole	SAMPLED			3																1										1	3												
301	46.057969	-88.991935	284	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	301	3	Sand	Pole	SAMPLED			1												1																											
302	46.057249	-88.991948	282	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	302	2	Sand	Pole	SAMPLED			1												1			1								1															
303	46.056529	-88.991961	283	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	303	3	Sand	Pole	SAMPLED			1				1								1										1															
304	46.068038	-88.990717	95	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	304	5	Sand	Pole	SAMPLED			1	1																				1																	
305	46.067318	-88.990731	96	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	305	17		Rope	SAMPLED			0																																						
306	46.066598	-88.990744	97	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	306	18		Rope	SAMPLED			0																																						
307	46.065879	-88.990757	98	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	307	18		Rope	SAMPLED			1				1																																		
308	46.065159	-88.99077	99	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	308	18		Rope	SAMPLED			0																																						
309	46.064439	-88.990783	100	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	309	19		Rope	SAMPLED			0																																						
310	46.063719	-88.990796	101	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	310	18		Rope	SAMPLED			0																																						
311	46.062999	-88.990809	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	311	0			DEEP																																								
312	46.062279	-88.990822	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	312	0			DEEP																																								
313	46.061559	-88.990836	276	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	313	22			DEEP																																								
314	46.060839	-88.990849	277	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	314	13	Muck	Pole	SAMPLED			2																1											2		1											
315	46.060119	-88.990862	278	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	315	11	Muck	Pole	SAMPLED			3				3																					1													
316	46.059399	-88.990875	279	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	316	10	Muck	Pole	SAMPLED			3	2			2																																		
317	46.058679	-88.990888	280	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	317	9	Muck	Pole	SAMPLED			2																											2													
318	46.05796	-88.990901	281	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	318	3	Sand	Pole	SAMPLED			1												1										1															
319	46.068749	-88.98967	94	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	319	4	Rock	Pole	SAMPLED			0																																						
320	46.068029	-88.989683	93	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	320	17		Rope	SAMPLED			1				1												1											1													
321	46.067309	-88.989696	92	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	321	17		Rope	SAMPLED			0																																						
322	46.066589	-88.989709	91	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	322	18		Rope	SAMPLED			0																																						
323	46.065869	-88.989723	90	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	323	18		Rope	SAMPLED			0																																						
324	46.06515	-88.989736	89	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	324	19		Rope	SAMPLED			0																																						
325	46.06443	-88.989749	88	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	325	19		Rope	SAMPLED			0																																						
326	46.06371	-88.989762	87	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	326	19		Rope	SAMPLED			1								1																															
327	46.06299	-88.989775	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	327	0			DEEP																																								
328	46.06227	-88.989788	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	328	0			DEEP																																								
329	46.06155	-88.989801	275	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	329	22			DEEP																																								
330	46.06083	-88.989815	274	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	330	14	Muck	Pole	SAMPLED			2																											1		1											
331	46.06011	-88.989828	273	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	331	12	Muck	Pole	SAMPLED			1				1																					1		1											
332	46.05939	-88.989841	272	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	332	9	Muck	Pole	SAMPLED			2																									1		1											
333	46.05867	-88.989854	271	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	333	9	Muck	Pole	SAMPLED			3				1				1																			3													
334	46.05795	-88.989867	270	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	334	4	Sand	Pole	SAMPLED			1						1		1							1											1		1											
335	46.06946	-88.988623	78	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	335	4	Sand	Pole	SAMPLED			1																									1												1		
336	46.06874	-88.988636	79	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	336	11	Muck	Pole	SAMPLED			2				1												1											2													
337	46.06802	-88.988649	80	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	337	17		Rope	SAMPLED			0																																						
338	46.0673	-88.988662	81	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	338	18		Rope	SAMPLED			0																																						
339	46.06658	-88.988675	82	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	339	18		Rope	SAMPLED			0																																						
340	46.06586	-88.988688	83	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	340	19		Rope	SAMPLED			0																																						
341	46.06514	-88.988702	84	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	341	20		Rope	SAMPLED			1								1																								1							
342	46.06442	-88.988715	85	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	342	19		Rope	SAMPLED			1								1																															
343	46.063701	-88.988728	86	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	343	19		Rope	SAMPLED			0																																						
344	46.062981	-88.988741	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	344	0			DEEP																																								
345	46.062261	-88.988754	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	345	0			DEEP																																								
346	46.061541	-88.988767	264	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	346	22			DEEP																																								
347	46.060821	-88.98878	265	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	347	12	Muck	Pole	SAMPLED			2				1																							2													
348	46.060101	-88.988794	266	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	348	10	Muck	Pole	SAMPLED			2	V																									2													
349	46.059381	-88.988807	267	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	349	10	Muck	Pole	SAMPLED			2	1																									1		1				1							
350	46.058661	-88.98882	268	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	350	9	Muck	Pole	SAMPLED			3																									3													

Point Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	ID	Lake Name	County	Date	Field Crew	Point Number	Depth (ft)	Sediment	Pole; Rope	Comments	Notes	Nuisance	Total Rake Fullness	Myriophyllum spicatum	Brasenia schreberi	Bidens beckii	Ceratophyllum demersum	Chara spp.	Eleocharis acicularis	Eleocharis palustris	Elodea canadensis	Eriocaulon aquaticum	Heteranthera dubia	Isoetes spp.	Juncus pelocarpus	Myriophyllum sibiricum	Myriophyllum tenellum	Najas flexilis	Najas guadalupensis	Nuphar variegata	Nymphaea odorata	Potamogeton amplifolius	Potamogeton berchtoldii	Potamogeton foliosus	Potamogeton gramineus	Potamogeton illinoensis	Potamogeton praelongus	Potamogeton richardsonii	Potamogeton robbinsii	Potamogeton spirillus	Potamogeton strictifolius	Potamogeton zosteriformis	Sagitaria sp. (rosette)	Schoenoplectus acutus	Schoenoplectus tabernaemontani	Sparganium fluctuans	Utricularia intermedia	Utricularia vulgaris	Vallisneria americana	Potamogeton amplifolius x praelongus	Potamogeton praelongus x illinoensis	Aquatic moss
351	46.057941	-88.988833	269	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	351	7	Sand	Pole	SAMPLED			1																						1																	
352	46.070171	-88.987575	76	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	352	2	Sand	Pole	SAMPLED									1																1																	
353	46.069451	-88.987588	75	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	353	8	Muck	Pole	SAMPLED			3	2			1	1			1								2																							
354	46.068731	-88.987602	74	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	354	11	Muck	Pole	SAMPLED			3	1							1																1		3													
355	46.068011	-88.987615	73	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	355	19		Rope	SAMPLED			0																																							
356	46.067291	-88.987628	72	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	356	19		Rope	SAMPLED			0																																							
357	46.066571	-88.987641	71	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	357	19		Rope	SAMPLED			1																										1													
358	46.065851	-88.987654	70	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	358	19		Rope	SAMPLED			1				1																																			
359	46.065131	-88.987667	69	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	359	19		Rope	SAMPLED			0																																							
360	46.064411	-88.98768	77	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	360	0			DEEP																																										
361	46.063691	-88.987694	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	361	0			DEEP																																										
362	46.062972	-88.987707	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	362	0			DEEP																																										
363	46.062252	-88.98772	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	363	0			DEEP																																										
364	46.061532	-88.987733	263	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	364	22			DEEP																																										
365	46.060812	-88.987746	262	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	365	19		Rope	SAMPLED			0																																							1
366	46.060092	-88.987759	261	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	366	13	Muck	Pole	SAMPLED			2				1												1										2													
367	46.059372	-88.987773	260	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	367	11	Muck	Pole	SAMPLED			2	1			1																				1		1													
368	46.058652	-88.987786	259	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	368	9	Muck	Pole	SAMPLED			3																1								1		2													
369	46.057932	-88.987799	258	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	369	7	Sand	Pole	SAMPLED			1			1													1																							
370	46.070161	-88.986541	62	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	370	0			TERRESTRIAL																																										
371	46.069442	-88.986554	63	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	371	9	Muck	Pole	SAMPLED			3	1			1												3																							
372	46.068722	-88.986567	64	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	372	10	Muck	Pole	SAMPLED			3																								1		3													
373	46.068002	-88.98658	65	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	373	21		Rope	SAMPLED			0																																							
374	46.067282	-88.986594	66	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	374	20		Rope	SAMPLED			0																																							
375	46.066562	-88.986607	67	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	375	20		Rope	SAMPLED			0																																							
376	46.065842	-88.98662	68	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	376	0			DEEP																																										
377	46.065122	-88.986633	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	377	0			DEEP																																										
378	46.064402	-88.986646	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	378	0			DEEP																																										
379	46.063682	-88.986659	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	379	0			DEEP																																										
380	46.062962	-88.986673	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	380	0			DEEP																																										
381	46.062242	-88.986686	251	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	381	22			DEEP																																										
382	46.061523	-88.986699	252	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	382	21		Rope	SAMPLED			0																																							
383	46.060803	-88.986712	253	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	383	20		Rope	SAMPLED			0																																							
384	46.060083	-88.986725	254	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	384	12	Muck	Pole	SAMPLED			1				1																				1															
385	46.059363	-88.986738	255	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	385	11	Muck	Pole	SAMPLED			3	V							1								2																							
386	46.058643	-88.986752	256	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	386	9	Muck	Pole	SAMPLED			3				1																						2													
387	46.057923	-88.986765	257	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	387	4	Sand	Pole	SAMPLED			1						1																1																	
388	46.069432	-88.98552	61	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	388	6	Sand	Pole	SAMPLED			1																						1																	
389	46.068712	-88.985533	60	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	389	10	Sand	Pole	SAMPLED			2								1																		2			1										
390	46.067993	-88.985546	59	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	390	17		Rope	SAMPLED			1				1																																			
391	46.067273	-88.985559	57	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	391	21		Rope	SAMPLED			0																																							
392	46.066553	-88.985573	58	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	392	0			DEEP																																										
393	46.065833	-88.985586	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	393	0			DEEP																																										
394	46.065113	-88.985599	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	394	0			DEEP																																										
395	46.064393	-88.985612	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	395	0			DEEP																																										
396	46.063673	-88.985625	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	396	0			DEEP																																										
397	46.062953	-88.985638	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	397	0			DEEP																																										
398	46.062233	-88.985652	250	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	398	22			DEEP																																										
399	46.061513	-88.985665	249	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	399	19		Rope	SAMPLED			0																																							
400	46.060793	-88.985678	248	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	400	21		Rope	SAMPLED			0																																							
401	46.060074	-88.985691	247	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	401	18		Rope	SAMPLED			1																										1													
402	46.059354	-88.985704	246	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	402	11	Muck	Pole	SAMPLED			3	1			1																				1		2													
403	46.058634	-88.985718	245	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	403	9	Muck	Pole	SAMPLED			3																								1		2													
404	46.057914	-88.985731	244	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	404	3	Sand	Pole	SAMPLED			1						1									1							1																	
405	46.069423	-88.984485	53	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	405	5	Sand	Pole	SAMPLED			1																						1																	
406	46.068703	-88.984499	54	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	406	11	Sand	Pole	SAMPLED			2								1																1		2													
407	46.067983	-88.984512	55	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	407	17		Rope	SAMPLED			0																																							
408	46.067263	-88.984525	56	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	408	0			DEEP																																										
409	46.066544	-88.984538	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	409	0			DEEP																																										
410	46.065824	-88.984551	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	410	0			DEEP																																										
411	46.065104	-88.984565	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	411	0			DEEP																																										
412	46.064384	-88.984578	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	412	0			DEEP																																										
413	46.063664	-88.984591	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	413	0			DEEP																																										
414	46.062944	-88.984604	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	414	0			DEEP																																										
415	46.062224	-88.984617	237	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	415	22			DEEP																																										
416	46.061504	-88.984631	238	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	416	20		Rope	SAMPLED			0																																							
417	46.060784	-88.984644	239	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	417	21		Rope	SAMPLED			0																																							
418	46.060064	-88.984657	240	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	418	21		Rope	SAMPLED			0																																							
419	46.059344	-88.98467	241	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	419	11	Muck	Pole	SAMPLED			1																								1		1													
420	46.058625	-88.984683	242	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	420	9	Muck	Pole	SAMPLED			2	1			1																1				1		1													

Point Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	ID	Lake Name	County	Date	Field Crew	Point Number	Depth (ft)	Sediment	Pole; Rope	Comments	Notes	Nuisance	Total Rake Fullness	Myriophyllum spicatum	Brasenia schreberi	Bidens beckii	Ceratophyllum demersum	Chara spp.	Eleocharis acicularis	Eleocharis palustris	Elodea canadensis	Eriocaulon aquaticum	Heteranthera dubia	Isoetes spp.	Juncus pelocarpus	Myriophyllum sibiricum	Myriophyllum tenellum	Najas flexilis	Najas guadalupensis	Nuphar variegata	Nymphaea odorata	Potamogeton amplifolius	Potamogeton berchtoldii	Potamogeton foliosus	Potamogeton gramineus	Potamogeton illinoensis	Potamogeton praelongus	Potamogeton richardsonii	Potamogeton robbinsii	Potamogeton spirillus	Potamogeton strictifolius	Potamogeton zosteriformis	Sagittaria sp. (rosette)	Schoenoplectus acutus	Schoenoplectus tabernaemontani	Sparganium fluctuans	Utricularia intermedia	Utricularia vulgaris	Vallisneria americana	Potamogeton amplifolius x praelongus	Potamogeton praelongus x illinoensis	Aquatic moss
421	46.057905	-88.984697	243	Big Sand Lake	Vilas	7/24/2014	EEH & EAT	421	3	Sand	Pole	SAMPLED			1					1						1				1						1																			
422	46.070134	-88.983438	50	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	422	2	Sand	Pole	SAMPLED			1					1																																		
423	46.069414	-88.983451	49	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	423	8	Sand	Pole	SAMPLED			2								1							1						2																		
424	46.068694	-88.983464	47	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	424	11	Sand	Pole	SAMPLED			2																											2												
425	46.067974	-88.983478	46	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	425	20		Rope	SAMPLED			0																																						
426	46.067254	-88.983491	43	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	426	22		Rope	SAMPLED			0																																						
427	46.066534	-88.983504	44	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	427	0			DEEP																																									
428	46.065814	-88.983517	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	428	0			DEEP																																									
429	46.065095	-88.98353	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	429	0			DEEP																																									
430	46.064375	-88.983544	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	430	0			DEEP																																									
431	46.063655	-88.983557	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	431	0			DEEP																																									
432	46.062935	-88.98357	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	432	0			DEEP																																									
433	46.062215	-88.983583	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	433	0			DEEP																																									
434	46.061495	-88.983597	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	434	0			DEEP																																									
435	46.060775	-88.98361	232	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	435	23			DEEP																																									
436	46.060055	-88.983623	233	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	436	20		Rope	SAMPLED			0																																						
437	46.059335	-88.983636	234	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	437	11	Sand	Pole	SAMPLED			3					1											3											1											
438	46.058615	-88.983649	235	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	438	9	Sand	Pole	SAMPLED			3																2									1		1										
439	46.057895	-88.983663	236	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	439	2	Sand	Pole	SAMPLED			1						1						1			1																						
440	46.070125	-88.982404	51	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	440	4	Sand	Pole	SAMPLED			1						1																	1					1										
441	46.069405	-88.982417	52	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	441	11	Muck	Pole	SAMPLED			3					1																					3											
442	46.068685	-88.98243	48	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	442	14	Sand	Pole	SAMPLED			2																2																						
443	46.067965	-88.982443	45	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	443	0			DEEP																																									
444	46.067245	-88.982457	42	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	444	0			DEEP																																									
445	46.066525	-88.98247	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	445	0			DEEP																																									
446	46.065805	-88.982483	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	446	0			DEEP																																									
447	46.065085	-88.982496	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	447	0			DEEP																																									
448	46.064365	-88.98251	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	448	0			DEEP																																									
449	46.063646	-88.982523	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	449	0			DEEP																																									
450	46.062926	-88.982536	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	450	0			DEEP																																									
451	46.062206	-88.982549	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	451	0			DEEP																																									
452	46.061486	-88.982562	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	452	0			DEEP																																									
453	46.060766	-88.982576	231	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	453	24			DEEP																																									
454	46.060046	-88.982589	230	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	454	21		Rope	SAMPLED			0																																						
455	46.059326	-88.982602	229	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	455	11	Sand	Pole	SAMPLED			2					1																					1		2										
456	46.058606	-88.982615	228	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	456	10	Sand	Pole	SAMPLED			3																											3										
457	46.057886	-88.982629	227	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	457	3	Sand	Pole	SAMPLED			1												1			1																						
458	46.070835	-88.981356	37	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	458	6	Muck	Pole	SAMPLED			1																										1		1			1						
459	46.070115	-88.981369	38	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	459	10	Sand	Pole	SAMPLED			2	1															2							1												
460	46.069396	-88.981383	39	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	460	12	Sand	Pole	SAMPLED			3					3											2											2										
461	46.068676	-88.981396	40	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	461	12	Sand	Pole	SAMPLED			2																2																						
462	46.067956	-88.981409	41	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	462	23			DEEP																																									
463	46.067236	-88.981422	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	463	0			DEEP																																									
464	46.066516	-88.981436	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	464	0			DEEP																																									
465	46.065796	-88.981449	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	465	0			DEEP																																									
466	46.065076	-88.981462	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	466	0			DEEP																																									
467	46.064356	-88.981475	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	467	0			DEEP																																									
468	46.063636	-88.981489	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	468	0			DEEP																																									
469	46.062916	-88.981502	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	469	0			DEEP																																									
470	46.062196	-88.981515	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	470	0			DEEP																																									
471	46.061477	-88.981528	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	471	0			DEEP																																									
472	46.060757	-88.981542	223	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	472	24			DEEP																																									
473	46.060037	-88.981555	224	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	473	19		Rope	SAMPLED			1																1																						
474	46.059317	-88.981568	225	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	474	10	Muck	Pole	SAMPLED			3																3											1										
475	46.058597	-88.981581	226	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	475	8	Sand	Pole	SAMPLED			1					1										1																						
476	46.071546	-88.980309	36	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	476	5	Sand	Pole	SAMPLED			1																							1														
477	46.070826	-88.980322	35	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	477	10	Muck	Pole	SAMPLED			2					1																					2										
478	46.070106	-88.980335	34	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	478	15	Muck	Pole	SAMPLED			2					2																					1					1					
479	46.069386	-88.980348	33	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	479	16		Rope	SAMPLED			0																																						
480	46.068666	-88.980362	32	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	480	14	Sand	Pole	SAMPLED			2																2																						
481	46.067946	-88.980375	31	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	481	0			DEEP																																									
482	46.067227	-88.980388	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	482	0			DEEP																																									
483	46.066507	-88.980401	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	483	0			DEEP																																									
484	46.065787	-88.980415	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	484	0			DEEP																																									
485	46.065067	-88.980428	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	485	0			DEEP																																									
486	46.064347	-88.980441	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	486	0			DEEP																																									
487	46.063627	-88.980454	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	487	0			DEEP																																									
488	46.062907	-88.980468	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	488	0			DEEP																																									
489	46.062187	-88.980481	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	489	0			DEEP																																									
490	46.061467	-88.980494	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	490	0			DEEP																																									

Point Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	ID	Lake Name	County	Date	Field Crew	Point Number	Depth (ft)	Sediment	Pole; Rope	Comments	Notes	Nuisance	Total Rake Fullness	Myriophyllum spicatum	Brasenia schreberi	Bidens beckii	Ceratophyllum demersum	Chara spp.	Eleocharis acicularis	Eleocharis palustris	Elodea canadensis	Eriocaulon aquaticum	Heteranthera dubia	Isoetes spp.	Juncus pelocarpus	Myriophyllum sibiricum	Myriophyllum tenellum	Najas flexilis	Najas guadalupensis	Nuphar variegata	Nymphaea odorata	Potamogeton amplifolius	Potamogeton berchtoldii	Potamogeton foliosus	Potamogeton gramineus	Potamogeton illinoensis	Potamogeton praelongus	Potamogeton richardsonii	Potamogeton robbinsii	Potamogeton spirillus	Potamogeton strictifolius	Potamogeton zosteriformis	Sagittaria sp. (rosette)	Schoenoplectus acutus	Schoenoplectus tabernaemontani	Sparganium fluctuans	Utricularia intermedia	Utricularia vulgaris	Vallisneria americana	Potamogeton amplifolius x praelongus	Potamogeton praelongus x illinoensis	Aquatic moss
491	46.060747	-88.980507	222	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	491	25			DEEP																																											
492	46.060028	-88.980521	221	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	492	15	Sand	Pole	SAMPLED			2				1											1	2																									
493	46.059308	-88.980534	220	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	493	10	Sand	Pole	SAMPLED			3				1											3																									
494	46.058588	-88.980547	219	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	494	4	Sand	Pole	SAMPLED			1												1				1											1													
495	46.071537	-88.979274	25	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	495	7	Sand	Pole	SAMPLED			1															1							1																
496	46.070817	-88.979287	26	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	496	15	Muck	Pole	SAMPLED			3				1																						2					2								
497	46.070097	-88.979301	27	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	497	17		Rope	SAMPLED			0																																						
498	46.069377	-88.979314	28	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	498	17		Rope	SAMPLED			0																																						
499	46.068657	-88.979327	29	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	499	16		Rope	SAMPLED			0																																						
500	46.067937	-88.979341	30	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	500	0			DEEP																																									
501	46.067217	-88.979354	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	501	0			DEEP																																									
502	46.066497	-88.979367	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	502	0			DEEP																																									
503	46.065778	-88.97938	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	503	0			DEEP																																									
504	46.065058	-88.979394	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	504	0			DEEP																																									
505	46.064338	-88.979407	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	505	0			DEEP																																									
506	46.063618	-88.97942	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	506	0			DEEP																																									
507	46.062898	-88.979433	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	507	0			DEEP																																									
508	46.062178	-88.979447	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	508	0			DEEP																																									
509	46.061458	-88.97946	214	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	509	25			DEEP																																									
510	46.060738	-88.979473	215	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	510	22		Rope	SAMPLED			0																																						
511	46.060018	-88.979486	216	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	511	12	Sand	Pole	SAMPLED			3																												3					1								
512	46.059298	-88.9795	217	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	512	10	Sand	Pole	SAMPLED			2															1										1	2					1								
513	46.058579	-88.979513	218	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	513	0			NONNAVIGABLE (PLANTS)																																											
514	46.071528	-88.97824	24	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	514	7	Sand	Pole	SAMPLED			1	1				1										1									1															
515	46.070808	-88.978253	23	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	515	15	Muck	Pole	SAMPLED			2								1																		2													
516	46.070088	-88.978266	22	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	516	16		Rope	SAMPLED			1								1																								1							
517	46.069368	-88.97828	21	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	517	15	Sand	Pole	SAMPLED			3				1				1							2											1													
518	46.068648	-88.978293	20	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	518	20		Rope	SAMPLED			0																																						
519	46.067928	-88.978306	19	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	519	0			DEEP																																									
520	46.067208	-88.97832	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	520	0			DEEP																																									
521	46.066488	-88.978333	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	521	0			DEEP																																									
522	46.065768	-88.978346	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	522	0			DEEP																																									
523	46.065048	-88.978359	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	523	0			DEEP																																									
524	46.064329	-88.978373	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	524	0			DEEP																																									
525	46.063609	-88.978386	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	525	0			DEEP																																									
526	46.062889	-88.978399	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	526	0			DEEP																																									
527	46.062169	-88.978413	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	527	0			DEEP																																									
528	46.061449	-88.978426	213	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	528	28			DEEP																																									
529	46.060729	-88.978439	212	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	529	21		Rope	SAMPLED			0																																						
530	46.060009	-88.978452	211	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	530	12	Muck	Pole	SAMPLED			3				1																						3													
531	46.059289	-88.978466	210	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	531	9	Sand	Pole	SAMPLED			1															1										1	1													
532	46.071518	-88.977206	13	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	532	7	Sand	Pole	SAMPLED			1								1							1																									
533	46.070798	-88.977219	14	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	533	10	Sand	Pole	SAMPLED			2				1	1										2																									
534	46.070078	-88.977232	15	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	534	12	Sand	Pole	SAMPLED			1	1																																						
535	46.069359	-88.977245	16	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	535	10	Sand	Pole	SAMPLED			1					1										1																									
536	46.068639	-88.977259	17	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	536	17		Rope	SAMPLED			0																																						
537	46.067919	-88.977272	18	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	537	0			DEEP																																									
538	46.067199	-88.977285	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	538	0			DEEP																																									
539	46.066479	-88.977299	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	539	0			DEEP																																									
540	46.065759	-88.977312	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	540	0			DEEP																																									
541	46.065039	-88.977325	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	541	0			DEEP																																									
542	46.064319	-88.977339	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	542	0			DEEP																																									
543	46.063599	-88.977352	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	543	0			DEEP																																									
544	46.062879	-88.977365	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	544	0			DEEP																																									
545	46.06216	-88.977378	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	545	0			DEEP																																									
546	46.06144	-88.977392	206	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	546	25			DEEP																																									
547	46.06072	-88.977405	207	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	547	13	Sand	Pole	SAMPLED			2																												2													
548	46.06	-88.977418	208	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	548	10	Sand	Pole	SAMPLED			3																3																									
549	46.05928	-88.977432	209	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	549	3	Rock	Pole	SAMPLED			1																									1														
550	46.071509	-88.976171	12	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	550	5	Sand	Pole	SAMPLED			1																									1														
551	46.070789	-88.976185	11	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	551	10	Muck	Pole	SAMPLED			3																												3													
552	46.070069	-88.976198	9	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	552	10	Muck	Pole	SAMPLED			2																											1	2													
553	46.069349	-88.976211	8	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	553	8	Rock	Pole	SAMPLED			1								1							1																									
554	46.068629	-88.976224	7	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	554	13	Sand	Pole	SAMPLED			3																3																									
555	46.06791	-88.976238	10	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	555	0			DEEP																																									
556	46.06719	-88.976251	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	556	0			DEEP																																									
557	46.06647	-88.976264	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	557	0			DEEP																																									
558	46.06575	-88.976278	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	558	0			DEEP																																									
559	46.06503	-88.976291	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	559	0			DEEP																																									
560	46.06431	-88.976304	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	560	0			DEEP																																									

Point Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	ID	Lake Name	County	Date	Field Crew	Point Number	Depth (ft)	Sediment	Pole; Rope	Comments	Notes	Nuisance	Total Rake Fullness	Myriophyllum spicatum	Brasenia schreberi	Bidens beckii	Ceratophyllum demersum	Chara spp.	Eleocharis acicularis	Eleocharis palustris	Elodea canadensis	Eriocaulon aquaticum	Heteranthera dubia	Isoetes spp.	Juncus pelocarpus	Myriophyllum sibiricum	Myriophyllum tenellum	Najas flexilis	Najas guadalupensis	Nuphar variegata	Nymphaea odorata	Potamogeton amplifolius	Potamogeton berchtoldii	Potamogeton foliosus	Potamogeton gramineus	Potamogeton illinoensis	Potamogeton praelongus	Potamogeton richardsonii	Potamogeton robbinsii	Potamogeton spirillus	Potamogeton strictifolius	Potamogeton zosteriformis	Sagittaria sp. (rosette)	Schoenoplectus acutus	Schoenoplectus tabernaemontani	Sparganium fluctuans	Utricularia intermedia	Utricularia vulgaris	Vallisneria americana	Potamogeton amplifolius x praelongus	Potamogeton praelongus x illinoensis	Aquatic moss
561	46.06359	-88.976318	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	561	0			DEEP																																									
562	46.06287	-88.976331	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	562	0			DEEP																																									
563	46.06215	-88.976344	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	563	0			DEEP																																									
564	46.06143	-88.976358	205	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	564	26			DEEP																																									
565	46.06071	-88.976371	204	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	565	12	Sand	Pole	SAMPLED			2															1	1												2										
566	46.059991	-88.976384	203	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	566	10	Sand	Pole	SAMPLED			3				1																					1	3									
567	46.059271	-88.976397	202	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	567	3	Sand	Pole	SAMPLED			1															1																					
568	46.0715	-88.975137	1	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	568	5	Sand	Pole	SAMPLED			1					1	1																	1												1		
569	46.07078	-88.97515	2	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	569	9	Sand	Pole	SAMPLED			1				1												1							1												
570	46.07006	-88.975164	3	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	570	9	Sand	Pole	SAMPLED			2																										2									
571	46.06934	-88.975177	4	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	571	10	Sand	Pole	SAMPLED			2					1										2							1												
572	46.06862	-88.97519	5	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	572	21		Rope	SAMPLED			0																																				
573	46.0679	-88.975204	6	Big Sand Lake	Vilas	7/24/2014	EJH & EAT	573	0			DEEP																																								
574	46.06718	-88.975217	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	574	0			DEEP																																								
575	46.06646	-88.97523	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	575	0			DEEP																																								
576	46.065741	-88.975243	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	576	0			DEEP																																								
577	46.065021	-88.975257	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	577	0			DEEP																																								
578	46.064301	-88.97527	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	578	0			DEEP																																								
579	46.063581	-88.975283	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	579	0			DEEP																																								
580	46.062861	-88.975297	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	580	0			DEEP																																								
581	46.062141	-88.97531	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	581	0			DEEP																																								
582	46.061421	-88.975323	198	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	582	29			DEEP																																								
583	46.060701	-88.975337	199	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	583	11	Muck	Pole	SAMPLED			3																									1	2									
584	46.059981	-88.97535	200	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	584	9	Sand	Pole	SAMPLED			2															2										1										
585	46.059261	-88.975363	201	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	585	2	Sand	Pole	SAMPLED			1												1			1																					
586	46.07149	-88.974103	1	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	586	2	Sand	Pole	SAMPLED			1											1				1																					
587	46.070771	-88.974116	2	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	587	8	Sand	Pole	SAMPLED			1	1				1										1												1									
588	46.070051	-88.974129	3	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	588	9	Sand	Pole	SAMPLED			1					1										1												1									
589	46.069331	-88.974143	4	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	589	10	Sand	Pole	SAMPLED			3				1											3								1											1		
590	46.068611	-88.974156	5	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	590	25		Rope	SAMPLED			0																																				
591	46.067891	-88.974169	6	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	591	30			DEEP																																								
592	46.067171	-88.974183	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	592	0			DEEP																																								
593	46.066451	-88.974196	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	593	0			DEEP																																								
594	46.065731	-88.974209	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	594	0			DEEP																																								
595	46.065011	-88.974223	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	595	0			DEEP																																								
596	46.064291	-88.974236	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	596	0			DEEP																																								
597	46.063572	-88.974249	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	597	0			DEEP																																								
598	46.062852	-88.974263	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	598	0			DEEP																																								
599	46.062132	-88.974276	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	599	0			DEEP																																								
600	46.061412	-88.974289	197	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	600	25			DEEP																																								
601	46.060692	-88.974303	196	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	601	11	Sand	Pole	SAMPLED			3					2				1															1	3			1								
602	46.059972	-88.974316	195	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	602	10	Sand	Pole	SAMPLED			3																										3									
603	46.059252	-88.974329	194	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	603	5	Sand	Pole	SAMPLED			1																							1												
604	46.070761	-88.973082	11	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	604	3	Rock	Pole	SAMPLED			0																																				
605	46.070041	-88.973095	10	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	605	6	Rock	Pole	SAMPLED			1																							1												
606	46.069321	-88.973108	9	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	606	8	Sand	Pole	SAMPLED			1																1																				
607	46.068602	-88.973122	8	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	607	24			DEEP																																								
608	46.067882	-88.973135	7	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	608	36			DEEP																																								
609	46.067162	-88.973148	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	609	0			DEEP																																								
610	46.066442	-88.973162	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	610	0			DEEP																																								
611	46.065722	-88.973175	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	611	0			DEEP																																								
612	46.065002	-88.973188	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	612	0			DEEP																																								
613	46.064282	-88.973202	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	613	0			DEEP																																								
614	46.063562	-88.973215	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	614	0			DEEP																																								
615	46.062842	-88.973228	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	615	0			DEEP																																								
616	46.062122	-88.973242	189	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	616	28			DEEP																																								
617	46.061403	-88.973255	190	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	617	18		Rope	SAMPLED			0																																					
618	46.060683	-88.973268	191	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	618	10	Muck	Pole	SAMPLED			3									1																	3									
619	46.059963	-88.973282	192	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	619	9	Muck	Pole	SAMPLED			3																										3									
620	46.059243	-88.973295	193	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	620	2	Sand	Pole	SAMPLED			1															1									1												
621	46.070752	-88.972047	12	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	621	4	Rock	Pole	SAMPLED			0																																				
622	46.070032	-88.972061	13	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	622	6	Sand	Pole	SAMPLED			1																1								1												
623	46.069312	-88.972074	14	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	623	12	Sand	Pole	SAMPLED			2																1	2																				
624	46.068592	-88.972087	15	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	624	14	Sand	Pole	SAMPLED			1																1	1																				
625	46.067872	-88.972101	16	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	625	35			DEEP																																								
626	46.067152	-88.972114	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	626	0			DEEP																																								
627	46.066433	-88.972127	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	627	0			DEEP																																								
628	46.065713	-88.972141	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	628	0			DEEP																																								
629	46.064993	-88.972154	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	629	0			DEEP																																								
630	46.064273	-88.972168	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	630	0			DEEP																																								

Point Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	ID	Lake Name	County	Date	Field Crew	Point Number	Depth (ft)	Sediment	Pole; Rope	Comments	Notes	Nuisance	Total Rake Fullness	Myriophyllum spicatum	Brasenia schreberi	Bidens beckii	Ceratophyllum demersum	Chara spp.	Eleocharis acicularis	Eleocharis palustris	Elodea canadensis	Eriocaulon aquaticum	Heteranthera dubia	Isoetes spp.	Juncus pelocarpus	Myriophyllum sibiricum	Myriophyllum tenellum	Najas flexilis	Najas guadalupensis	Nuphar variegata	Nymphaea odorata	Potamogeton amplifolius	Potamogeton berchtoldii	Potamogeton foliosus	Potamogeton gramineus	Potamogeton illinoensis	Potamogeton praelongus	Potamogeton richardsonii	Potamogeton robbinsii	Potamogeton spirillus	Potamogeton strictifolius	Potamogeton zosteriformis	Sagittaria sp. (rosette)	Schoenoplectus acutus	Schoenoplectus tabernaemontani	Sparganium fluctuans	Utricularia intermedia	Utricularia vulgaris	Vallisneria americana	Potamogeton amplifolius x praelongus	Potamogeton praelongus x illinoensis	Aquatic moss
631	46.063553	-88.972181	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	631	0			DEEP																																										
632	46.062833	-88.972194	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	632	0			DEEP																																										
633	46.062113	-88.972208	188	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	633	28			DEEP																																										
634	46.061393	-88.972221	187	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	634	15	Sand	Pole	SAMPLED			0																																								
635	46.060673	-88.972234	186	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	635	11	Muck	Pole	SAMPLED			3								1																				3												
636	46.059953	-88.972248	185	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	636	8	Sand	Pole	SAMPLED			2																1																							
637	46.059234	-88.972261	184	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	637	2	Rock	Pole	SAMPLED			1							1																																
638	46.071463	-88.971	22	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	638	2	Sand	Pole	SAMPLED			1	1							1		1																	1												
639	46.070743	-88.971013	21	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	639	4	Rock	Pole	SAMPLED			0																																							
640	46.070023	-88.971026	20	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	640	5	Sand	Pole	SAMPLED			1																1		1																				
641	46.069303	-88.97104	19	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	641	12	Sand	Pole	SAMPLED			2																		2																				
642	46.068583	-88.971053	18	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	642	12	Sand	Pole	SAMPLED			3																		3																				
643	46.067863	-88.971066	17	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	643	35			DEEP																																									
644	46.067143	-88.97108	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	644	0			DEEP																																									
645	46.066423	-88.971093	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	645	0			DEEP																																									
646	46.065703	-88.971107	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	646	0			DEEP																																									
647	46.064983	-88.97112	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	647	0			DEEP																																									
648	46.064264	-88.971133	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	648	0			DEEP																																									
649	46.063544	-88.971147	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	649	0			DEEP																																									
650	46.062824	-88.97116	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	650	0			DEEP																																									
651	46.062104	-88.971173	180	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	651	28			DEEP																																									
652	46.061384	-88.971187	181	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	652	11	Sand	Pole	SAMPLED			3					1												1	3																				
653	46.060664	-88.9712	182	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	653	9	Sand	Pole	SAMPLED			3					1												1										1		2								
654	46.059944	-88.971214	183	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	654	3	Sand	Pole	SAMPLED			1											1			1										1												
655	46.071453	-88.969965	23	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	655	4	Sand	Pole	SAMPLED			1						1											1								1											1	
656	46.070733	-88.969979	24	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	656	5	Sand	Pole	SAMPLED			1						1											1																				
657	46.070013	-88.969992	25	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	657	10	Sand	Pole	SAMPLED			2																	1												2								
658	46.069294	-88.970005	26	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	658	14	Sand	Pole	SAMPLED			3																	3																				
659	46.068574	-88.970019	27	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	659	25			DEEP																																									
660	46.067854	-88.970032	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	660	0			DEEP																																									
661	46.067134	-88.970046	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	661	0			DEEP																																									
662	46.066414	-88.970059	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	662	0			DEEP																																									
663	46.065694	-88.970072	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	663	0			DEEP																																									
664	46.064974	-88.970086	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	664	0			DEEP																																									
665	46.064254	-88.970099	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	665	0			DEEP																																									
666	46.063534	-88.970113	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	666	0			DEEP																																									
667	46.062814	-88.970126	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	667	0			DEEP																																									
668	46.062095	-88.970139	179	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	668	30			DEEP																																									
669	46.061375	-88.970153	178	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	669	11	Sand	Pole	SAMPLED			2			1					1																				2												
670	46.060655	-88.970166	177	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	670	4	Sand	Pole	SAMPLED			1												1											1											1		
671	46.072164	-88.968918	33	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	671	4	Sand	Pole	SAMPLED			1	V																						1			1								1			
672	46.071444	-88.968931	32	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	672	6	Sand	Pole	SAMPLED			3					1			1								1								2			1				1					
673	46.070724	-88.968944	31	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	673	9	Muck	Pole	SAMPLED			3					2																			1				1								
674	46.070004	-88.968958	30	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	674	29			DEEP																																									
675	46.069284	-88.968971	29	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	675	31			DEEP																																									
676	46.068564	-88.968985	28	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	676	31			DEEP																																									
677	46.067844	-88.968998	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	677	0			DEEP																																									
678	46.067125	-88.969011	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	678	0			DEEP																																									
679	46.066405	-88.969025	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	679	0			DEEP																																									
680	46.065685	-88.969038	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	680	0			DEEP																																									
681	46.064965	-88.969052	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	681	0			DEEP																																									
682	46.064245	-88.969065	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	682	0			DEEP																																									
683	46.063525	-88.969078	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	683	0			DEEP																																									
684	46.062805	-88.969092	174	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	684	30			DEEP																																									
685	46.062085	-88.969105	175	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	685	30			DEEP																																									
686	46.061365	-88.969119	176	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	686	8	Sand	Pole	SAMPLED			2																	2										1												
687	46.072874	-88.96787	34	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	687	3	Rock	Pole	SAMPLED			1							1																																
688	46.072155	-88.967883	35	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	688	8	Muck	Pole	SAMPLED			3																										1		3										
689	46.071435	-88.967897	36	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	689	9	Muck	Pole	SAMPLED			3																										3												
690	46.070715	-88.96791	37	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	690	16		Rope	SAMPLED			0																																						
691	46.069995	-88.967923	38	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	691	30			DEEP																																									
692	46.069275	-88.967937	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	692	0			DEEP																																									
693	46.068555	-88.96795	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	693	0			DEEP																																									
694	46.067835	-88.967964	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	694	0			DEEP																																									
695	46.067115	-88.967977	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	695	0			DEEP																																									
696	46.066395	-88.967991	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	696	0			DEEP																																									
697	46.065675	-88.968004	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	697	0			DEEP																																									
698	46.064955	-88.968017	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	698	0			DEEP																																									
699	46.064236	-88.968031	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	699	0			DEEP																																									
700	46.063516	-88.968044	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	700	0			DEEP																																									

Point Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	ID	Lake Name	County	Date	Field Crew	Point Number	Depth (ft)	Sediment	Pole; Rope	Comments	Notes	Nuisance	Total Rake Fullness	Myriophyllum spicatum	Brasenia schreberi	Bidens beckii	Ceratophyllum demersum	Chara spp.	Eleocharis acicularis	Eleocharis palustris	Elodea canadensis	Eriocaulon aquaticum	Heteranthera dubia	Isoetes spp.	Juncus pelocarpus	Myriophyllum sibiricum	Myriophyllum tenellum	Najas flexilis	Najas guadalupensis	Nuphar variegata	Nymphaea odorata	Potamogeton amplifolius	Potamogeton berchtoldii	Potamogeton foliosus	Potamogeton gramineus	Potamogeton illinoensis	Potamogeton praelongus	Potamogeton richardsonii	Potamogeton robbinsii	Potamogeton spirillus	Potamogeton strictifolius	Potamogeton zosteriformis	Sagittaria sp. (rosette)	Schoenoplectus acutus	Schoenoplectus tabernaemontani	Sparganium fluctuans	Utricularia intermedia	Utricularia vulgaris	Vallisneria americana	Potamogeton amplifolius x praelongus	Potamogeton praelongus x illinoensis	Aquatic moss
701	46.062796	-88.968058	173	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	701	40			DEEP																																										
702	46.062076	-88.968071	172	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	702	15		Rope	SAMPLED			2				1												2											1				1								
703	46.061356	-88.968084	171	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	703	2	Rock	Pole	SAMPLED			0																																						
704	46.073585	-88.966822	44	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	704	3	Rock	Pole	SAMPLED			2																							1														
705	46.072865	-88.966835	43	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	705	7	Sand	Pole	SAMPLED			3				1											2	1																					
706	46.072145	-88.966849	42	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	706	7	Sand	Pole	SAMPLED			3	V			1											3							1		1												
707	46.071425	-88.966862	41	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	707	9	Sand	Pole	SAMPLED			3															1	3																					
708	46.070705	-88.966876	40	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	708	11	Sand	Pole	SAMPLED			3								1								2									1		1										
709	46.069985	-88.966889	39	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	709	30			DEEP																																								
710	46.069266	-88.966903	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	710	0			DEEP																																								
711	46.068546	-88.966916	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	711	0			DEEP																																								
712	46.067826	-88.966929	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	712	0			DEEP																																								
713	46.067106	-88.966943	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	713	0			DEEP																																								
714	46.066386	-88.966956	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	714	0			DEEP																																								
715	46.065666	-88.96697	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	715	0			DEEP																																								
716	46.064946	-88.966983	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	716	0			DEEP																																								
717	46.064226	-88.966997	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	717	0			DEEP																																								
718	46.063506	-88.96701	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	718	0			DEEP																																								
719	46.062786	-88.967023	169	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	719	43			DEEP																																								
720	46.062067	-88.967037	170	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	720	4	Sand	Pole	SAMPLED			1														1	1							1														
721	46.074296	-88.965774	45	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	721	3	Sand	Pole	SAMPLED			1																1																				
722	46.073576	-88.965788	46	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	722	9	Muck	Pole	SAMPLED			3																												3								
723	46.072856	-88.965801	47	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	723	8	Muck	Pole	SAMPLED			3																									1		3								
724	46.072136	-88.965815	48	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	724	9	Muck	Pole	SAMPLED			3																									1		3								
725	46.071416	-88.965828	49	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	725	9	Sand	Pole	SAMPLED			2	1			1											1	1											2								
726	46.070696	-88.965841	50	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	726	11	Sand	Pole	SAMPLED			1					1											1											1	1							
727	46.069976	-88.965855	51	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	727	30			DEEP																																							
728	46.069256	-88.965868	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	728	0			DEEP																																							
729	46.068536	-88.965882	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	729	0			DEEP																																							
730	46.067816	-88.965895	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	730	0			DEEP																																							
731	46.067096	-88.965909	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	731	0			DEEP																																							
732	46.066377	-88.965922	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	732	0			DEEP																																							
733	46.065657	-88.965936	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	733	0			DEEP																																							
734	46.064937	-88.965949	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	734	0			DEEP																																							
735	46.064217	-88.965962	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	735	0			DEEP																																							
736	46.063497	-88.965976	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	736	0			DEEP																																							
737	46.062777	-88.965989	168	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	737	32			DEEP																																							
738	46.074286	-88.96474	58	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	738	7	Muck	Pole	SAMPLED			3				1																					1		3								
739	46.073566	-88.964753	57	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	739	9	Muck	Pole	SAMPLED			3				1																					1		3								
740	46.072846	-88.964767	56	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	740	9	Sand	Pole	SAMPLED			3	1			1																					1	1				1					
741	46.072126	-88.96478	55	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	741	13	Muck	Pole	SAMPLED			1				1																					1										
742	46.071407	-88.964794	54	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	742	10	Sand	Pole	SAMPLED			3																									1		3								
743	46.070687	-88.964807	53	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	743	11	Sand	Pole	SAMPLED			1					1										1	1																			
744	46.069967	-88.964821	52	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	744	30			DEEP																																							
745	46.069247	-88.964834	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	745	0			DEEP																																							
746	46.068527	-88.964847	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	746	0			DEEP																																							
747	46.067807	-88.964861	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	747	0			DEEP																																							
748	46.067087	-88.964874	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	748	0			DEEP																																							
749	46.066367	-88.964888	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	749	0			DEEP																																							
750	46.065647	-88.964901	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	750	0			DEEP																																							
751	46.064927	-88.964915	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	751	0			DEEP																																							
752	46.064208	-88.964928	165	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	752	36			DEEP																																							
753	46.063488	-88.964942	166	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	753	33			DEEP																																							
754	46.062768	-88.964955	167	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	754	11	Sand	Pole	SAMPLED			1								1								1											1								
755	46.074997	-88.963692	59	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	755	3	Sand	Pole	SAMPLED			1				1								1		1																				
756	46.074277	-88.963705	60	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	756	7	Sand	Pole	SAMPLED			2	1														1							1				1								
757	46.073557	-88.963719	61	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	757	9	Muck	Pole	SAMPLED			3				1																							3								
758	46.072837	-88.963732	62	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	758	8	Sand	Pole	SAMPLED			1	1														1																				
759	46.072117	-88.963746	63	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	759	10	Sand	Pole	SAMPLED			3																				1							3								
760	46.071397	-88.963759	64	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	760	10	Sand	Pole	SAMPLED			1				1																					1		1								
761	46.070677	-88.963773	65	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	761	13	Sand	Pole	SAMPLED			0																																				
762	46.069957	-88.963786	66	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	762	30			DEEP																																							
763	46.069237	-88.9638	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	763	0			DEEP																																							
764	46.068518	-88.963813	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	764	0			DEEP																																							
765	46.067798	-88.963827	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	765	0			DEEP																																							
766	46.067078	-88.96384	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	766	0			DEEP																																							
767	46.066358	-88.963854	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	767	0			DEEP																																							
768	46.065638	-88.963867	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	768	0			DEEP																																							
769	46.064918	-88.963881	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	769	0			DEEP																																							
770	46.064198	-88.963894	164	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	770	33			DEEP																																							

Point Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	ID	Lake Name	County	Date	Field Crew	Point Number	Depth (ft)	Sediment	Pole; Rope	Comments	Notes	Nuisance	Total Rake Fullness	Myriophyllum spicatum	Brasenia schreberi	Bidens beckii	Ceratophyllum demersum	Chara spp.	Eleocharis acicularis	Eleocharis palustris	Elodea canadensis	Eriocaulon aquaticum	Heteranthera dubia	Isoetes spp.	Juncus pelocarpus	Myriophyllum sibiricum	Myriophyllum tenellum	Najas flexilis	Najas guadalupensis	Nuphar variegata	Nymphaea odorata	Potamogeton amplifolius	Potamogeton berchtoldii	Potamogeton foliosus	Potamogeton gramineus	Potamogeton illinoensis	Potamogeton praelongus	Potamogeton richardsonii	Potamogeton robbinsii	Potamogeton spirillus	Potamogeton strictifolius	Potamogeton zosteriformis	Sagittaria sp. (rosette)	Schoenoplectus acutus	Schoenoplectus tabernaemontani	Sparganium fluctuans	Utricularia intermedia	Utricularia vulgaris	Vallisneria americana	Potamogeton amplifolius x praelongus	Potamogeton praelongus x illinoensis	Aquatic moss
771	46.063478	-88.963908	162	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	771	15	Sand	Pole	SAMPLED			0																																								
772	46.062758	-88.963921	161	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	772	10	Sand	Pole	SAMPLED			1															1																									
773	46.074987	-88.962658	74	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	773	4	Sand	Pole	SAMPLED			2																											2												
774	46.074267	-88.962671	73	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	774	4	Sand	Pole	SAMPLED			1					1									1									1														
775	46.073547	-88.962685	72	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	775	9	Muck	Pole	SAMPLED			3																											3												
776	46.072828	-88.962698	71	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	776	11	Muck	Pole	SAMPLED			3				1																							2					1							
777	46.072108	-88.962712	70	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	777	9	Sand	Pole	SAMPLED			1					1				1							1																					
778	46.071388	-88.962725	69	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	778	9	Sand	Pole	SAMPLED			2																											2												
779	46.070668	-88.962738	68	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	779	10	Sand	Pole	SAMPLED			1																																1						
780	46.069948	-88.962752	67	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	780	31			DEEP																																								
781	46.069228	-88.962765	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	781	0			DEEP																																								
782	46.068508	-88.962779	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	782	0			DEEP																																								
783	46.067788	-88.962792	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	783	0			DEEP																																								
784	46.067068	-88.962806	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	784	0			DEEP																																								
785	46.066348	-88.962819	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	785	0			DEEP																																								
786	46.065629	-88.962833	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	786	0			DEEP																																								
787	46.064909	-88.962846	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	787	0			DEEP																																								
788	46.064189	-88.96286	163	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	788	30			DEEP																																								
789	46.063469	-88.962873	158	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	789	11	Rock	Pole	SAMPLED			1																											1												
790	46.062749	-88.962887	159	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	790	9	Rock	Pole	SAMPLED			1					1																					1												
791	46.062029	-88.9629	160	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	791	2	Sand	Pole	SAMPLED			1						1							1									1														
792	46.074978	-88.961623	75	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	792	3	Sand	Pole	SAMPLED			3		1																		1						2									1			
793	46.074258	-88.961637	76	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	793	6	Sand	Pole	SAMPLED			3								1																		3												
794	46.073538	-88.96165	77	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	794	5	Sand	Pole	SAMPLED			1					1									1																					1			
795	46.072818	-88.961664	78	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	795	6	Rock	Pole	SAMPLED			1																							1														
796	46.072098	-88.961677	79	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	796	8	Sand	Pole	SAMPLED			0																																						
797	46.071378	-88.961691	80	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	797	9	Sand	Pole	SAMPLED			1																											1												
798	46.070658	-88.961704	81	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	798	10	Sand	Pole	SAMPLED			0																																						
799	46.069939	-88.961718	82	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	799	27			DEEP																																								
800	46.069219	-88.961731	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	800	0			DEEP																																								
801	46.068499	-88.961745	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	801	0			DEEP																																								
802	46.067779	-88.961758	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	802	0			DEEP																																								
803	46.067059	-88.961772	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	803	0			DEEP																																								
804	46.066339	-88.961785	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	804	0			DEEP																																								
805	46.065619	-88.961799	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	805	0			DEEP																																								
806	46.064899	-88.961812	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	806	0			DEEP																																								
807	46.064179	-88.961826	157	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	807	30			DEEP																																								
808	46.063459	-88.961839	156	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	808	11	Sand	Pole	SAMPLED			1					1											1																								
809	46.06274	-88.961853	155	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	809	9	Muck	Pole	SAMPLED			3					1				1																1		2				1							
810	46.06202	-88.961866	154	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	810	0			ROCKS																																								
811	46.074968	-88.960589	91	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	811	0			NONNAVIGABLE (PLANTS)																																										
812	46.074249	-88.960602	90	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	812	2	Rock	Pole	SAMPLED			1																																			1				
813	46.073529	-88.960616	89	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	813	3	Rock	Pole	SAMPLED			1															1																								
814	46.072809	-88.960629	88	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	814	5	Sand	Pole	SAMPLED			1						1																1														
815	46.072089	-88.960643	87	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	815	7	Sand	Pole	SAMPLED			1					1																1														
816	46.071369	-88.960656	86	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	816	8	Sand	Pole	SAMPLED			0																																						
817	46.070649	-88.96067	85	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	817	9	Sand	Pole	SAMPLED			0																																						
818	46.069929	-88.960683	83	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	818	11	Sand	Pole	SAMPLED			0																																						
819	46.069209	-88.960697	84	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	819	35			DEEP																																								
820	46.068489	-88.96071	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	820	0			DEEP																																								
821	46.067769	-88.960724	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	821	0			DEEP																																								
822	46.06705	-88.960737	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	822	0			DEEP																																								
823	46.06633	-88.960751	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	823	0			DEEP																																								
824	46.06561	-88.960764	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	824	0			DEEP																																								
825	46.06489	-88.960778	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	825	0			DEEP																																								
826	46.06417	-88.960791	151	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	826	29			DEEP																																								
827	46.06345	-88.960805	152	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	827	10	Sand	Pole	SAMPLED			1															1												1												
828	46.06273	-88.960818	153	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	828	6	Sand	Pole	SAMPLED			1																						1						1									1			
829	46.074239	-88.959568	92	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	829	0			NONNAVIGABLE (PLANTS)																																										
830	46.073519	-88.959581	93	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	830	4	Rock	Pole	SAMPLED			1																																			1				
831	46.072799	-88.959595	94	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	831	4	Rock	Pole	SAMPLED			1															1																								
832	46.072079	-88.959609	95	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	832	6	Rock	Pole	SAMPLED			1															1																								
833	46.07136	-88.959622	96	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	833	7	Sand	Pole	SAMPLED			1															1																								
834	46.07064	-88.959636	97	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	834	9	Sand	Pole	SAMPLED			0																																						
835	46.06992	-88.959649	98	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	835	11	Sand	Pole	SAMPLED			0																																						
836	46.0692	-88.959663	99	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	836	23		Rope	SAMPLED			0																																						
837	46.06848	-88.959676	100	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	837	38			DEEP																																								
838	46.06776	-88.95969	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	838	0			DEEP																																								
839	46.06704	-88.959703	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	839	0			DEEP																																								
840	46.06632	-88.959717	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	840	0			DEEP																																								

Point Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	ID	Lake Name	County	Date	Field Crew	Point Number	Depth (ft)	Sediment	Pole; Rope	Comments	Notes	Nuisance	Total Rake Fullness	Myriophyllum spicatum	Brasenia schreberi	Bidens beckii	Ceratophyllum demersum	Chara spp.	Eleocharis acicularis	Eleocharis palustris	Elodea canadensis	Eriocaulon aquaticum	Heteranthera dubia	Isoetes spp.	Juncus pelocarpus	Myriophyllum sibiricum	Myriophyllum tenellum	Najas flexilis	Najas guadalupensis	Nuphar variegata	Nymphaea odorata	Potamogeton amplifolius	Potamogeton berchtoldii	Potamogeton foliosus	Potamogeton gramineus	Potamogeton illinoensis	Potamogeton praelongus	Potamogeton richardsonii	Potamogeton robbinsii	Potamogeton spirillus	Potamogeton strictifolius	Potamogeton zosteriformis	Sagittaria sp. (rosette)	Schoenoplectus acutus	Schoenoplectus tabernaemontani	Sparganium fluctuans	Utricularia intermedia	Utricularia vulgaris	Vallisneria americana	Potamogeton amplifolius x praelongus	Potamogeton praelongus x illinoensis	Aquatic moss
841	46.0656	-88.95973	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	841	0			DEEP																																										
842	46.06488	-88.959744	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	842	0			DEEP																																										
843	46.064161	-88.959757	150	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	843	30			DEEP																																										
844	46.063441	-88.959771	149	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	844	10	Sand	Pole	SAMPLED			0																																								
845	46.062721	-88.959784	148	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	845	3	Sand	Pole	SAMPLED			1													1		1								1															
846	46.07351	-88.958547	108	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	846	0			NONNAVIGABLE (PLANTS)																																											
847	46.07279	-88.958561	107	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	847	3	Rock	Pole	SAMPLED			1						1																1															1		
848	46.07207	-88.958574	106	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	848	5	Sand	Pole	SAMPLED			1					1	1																															1		
849	46.07135	-88.958588	105	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	849	6	Sand	Pole	SAMPLED			1					1																																		
850	46.07063	-88.958601	104	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	850	8	Sand	Pole	SAMPLED			1					1											1								1														
851	46.06991	-88.958615	103	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	851	10	Sand	Pole	SAMPLED			0																																						
852	46.06919	-88.958628	102	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	852	12	Sand	Pole	SAMPLED			0																																						
853	46.068471	-88.958642	101	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	853	40			DEEP																																									
854	46.067751	-88.958655	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	854	0			DEEP																																									
855	46.067031	-88.958669	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	855	0			DEEP																																									
856	46.066311	-88.958682	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	856	0			DEEP																																									
857	46.065591	-88.958696	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	857	0			DEEP																																									
858	46.064871	-88.95871	144	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	858	46			DEEP																																									
859	46.064151	-88.958723	145	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	859	30			DEEP																																									
860	46.063431	-88.958737	146	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	860	6	Rock	Pole	SAMPLED			0																																								
861	46.062711	-88.95875	147	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	861	0			DOCK																																										
862	46.0735	-88.957513	109	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	862	0			NONNAVIGABLE (PLANTS)																																												
863	46.072781	-88.957526	110	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	863	3	Rock	Pole	SAMPLED			0																																								
864	46.072061	-88.95754	111	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	864	5	Sand	Pole	SAMPLED			1																	1								1														
865	46.071341	-88.957553	112	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	865	6	Sand	Pole	SAMPLED			1					1	1																															1		
866	46.070621	-88.957567	113	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	866	7	Sand	Pole	SAMPLED			1					1																																		
867	46.069901	-88.957581	114	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	867	9	Sand	Pole	SAMPLED			0																																							
868	46.069181	-88.957594	115	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	868	11	Sand	Pole	SAMPLED			1																		1																					
869	46.068461	-88.957608	116	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	869	35			DEEP																																									
870	46.067741	-88.957621	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	870	0			DEEP																																									
871	46.067021	-88.957635	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	871	0			DEEP																																									
872	46.066301	-88.957648	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	872	0			DEEP																																									
873	46.065582	-88.957662	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	873	0			DEEP																																									
874	46.064862	-88.957675	143	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	874	30			DEEP																																									
875	46.064142	-88.957689	142	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	875	7	Rock	Pole	SAMPLED			0																																								
876	46.072771	-88.956492	123	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	876	0			NONNAVIGABLE (PLANTS)																																												
877	46.072051	-88.956506	122	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	877	5	Rock	Pole	SAMPLED			1						1																																		
878	46.071331	-88.956519	121	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	878	6	Sand	Pole	SAMPLED			1																1								1														
879	46.070611	-88.956533	120	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	879	7	Sand	Pole	SAMPLED			1					1	1																1															1		
880	46.069891	-88.956546	119	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	880	7	Sand	Pole	SAMPLED			1																						1							1								
881	46.069172	-88.95656	118	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	881	10	Sand	Pole	SAMPLED			1																	1								1														
882	46.068452	-88.956573	117	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	882	12	Sand	Pole	SAMPLED			0																																							
883	46.067732	-88.956587	130	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	883	40			DEEP																																									
884	46.067012	-88.9566	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	884	0			DEEP																																									
885	46.066292	-88.956614	0	Big Sand Lake	Vilas	12:00:00 AM	EEH & EAT	885	0			DEEP																																									
886	46.065572	-88.956628	139	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	886	50			DEEP																																									
887	46.064852	-88.956641	141	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	887	8	Rock	Pole	SAMPLED			1																	1								1														
888	46.071322	-88.955485	124	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	888	2	Sand	Pole	SAMPLED			0																																							
889	46.070602	-88.955498	125	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	889	3	Sand	Pole	SAMPLED			0																																							
890	46.069882	-88.955512	126	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	890	7	Sand	Pole	SAMPLED			1																	1								1													1		
891	46.069162	-88.955525	127	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	891	9	Sand	Pole	SAMPLED			1								1																				1										1		
892	46.068442	-88.955539	128	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	892	11	Sand	Pole	SAMPLED			3																	3																					
893	46.067722	-88.955553	129	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	893	22		Rope	SAMPLED			0																																							
894	46.067002	-88.955566	131	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	894	30			DEEP																					0																					
895	46.066283	-88.95558	138	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	895	28			DEEP																																										
896	46.065563	-88.955593	140	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	896	12	Rock	Pole	SAMPLED			1								1									1																							
897	46.069873	-88.954478	136	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	897	0			SHALLOW																																										
898	46.069153	-88.954491	135	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	898	2	Sand	Pole	SAMPLED			0																																								
899	46.068433	-88.954505	134	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	899	3	Sand	Pole	SAMPLED			0																																							
900	46.067713	-88.954518	133	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	900	4	Sand	Pole	SAMPLED			1																	1																							
901	46.066993	-88.954532	132	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	901	7	Sand	Pole	SAMPLED			1	1						1						1				1								1										1			
902	46.066273	-88.954546	137	Big Sand Lake	Vilas	7/23/2014	EEH & EAT	902	4	Rock	Pole	SAMPLED			0																																							

Point Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	ID	Lake Name	County	Date	Field Crew	Point Number	Depth (ft)	Sediment	Pole; Rope	Comments	Notes	Nuisance	Total Rake Fullness	Myriophyllum spicatum	Brasenia schreberi	Bidens beckii	Ceratophyllum demersum	Chara spp.	Elatine minima	Eleocharis acicularis	Eleocharis palustris	Elodea canadensis	Eriocaulon aquaticum	Isoetes spp.	Juncus pelocarpus	Myriophyllum sibiricum	Myriophyllum tenellum	Najas flexilis	Najas guadalupensis	Nuphar variegata	Nymphaea odorata	Potamogeton amplifolius	Potamogeton berchtoldii	Potamogeton foliosus	Potamogeton gramineus	Potamogeton illinoensis	Potamogeton praelongus	Potamogeton pusillus	Potamogeton richardsonii	Potamogeton robbinsii	Potamogeton strictifolius	Potamogeton zosteriformis	Ranunculus aquatilis	Schoenoplectus acutus	Schoenoplectus tabernaemontani	Utricularia intermedia	Utricularia vulgaris	Vallisneria americana	Large-leaf and white-stem pondweed	White-stem and clasping-leaf pondweed
1	46.045146	-89.007679	407	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	1	0			NONNAVIGABLE (PLANTS)																																							
2	46.058815	-89.006399	274	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	2	0			NONNAVIGABLE (PLANTS)																																							
3	46.058096	-89.006412	276	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	3	0			NONNAVIGABLE (PLANTS)																																							
4	46.047297	-89.006606	394	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	4	0			NONNAVIGABLE (PLANTS)																																							
5	46.046577	-89.006619	403	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	5	0			NONNAVIGABLE (PLANTS)																																							
6	46.045857	-89.006632	406	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	6	0			NONNAVIGABLE (PLANTS)																																							
7	46.060246	-89.005340	257	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	7	2	Muck	Pole	SAMPLED			1	V																1									1									
8	46.059526	-89.005352	258	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	8	3	Muck	Pole	SAMPLED			2									1																	2								
9	46.058806	-89.005365	273	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	9	3	Muck	Pole	SAMPLED			2																										2								
10	46.058087	-89.005378	275	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	10	3	Muck	Pole	SAMPLED			2									1																	2								
11	46.057367	-89.005391	291	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	11	2	Muck	Pole	SAMPLED			3									1																	3								
12	46.056647	-89.005404	292	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	12	1	Muck	Pole	SAMPLED			1		1																1																
13	46.050167	-89.005520	409	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	13	0			NONNAVIGABLE (PLANTS)																																							
14	46.049448	-89.005533	402	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	14	1	Muck	Pole	SAMPLED			2		1	1	1	1											1		1													1	2		
15	46.048728	-89.005546	395	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	15	3	Muck	Pole	SAMPLED			3				2					1				1													1					1			
16	46.048008	-89.005559	393	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	16	0			NONNAVIGABLE (PLANTS)																																							
17	46.047288	-89.005572	391	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	17	0			NONNAVIGABLE (PLANTS)																																							
18	46.046568	-89.005585	404	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	18	0			NONNAVIGABLE (PLANTS)																																							
19	46.045848	-89.005598	405	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	19	0			NONNAVIGABLE (PLANTS)																																							
20	46.061677	-89.004280	242	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	20	2	Sand	Pole	SAMPLED			2	V				1		1				1					1									1								1	
21	46.060957	-89.004292	243	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	21	3	Muck	Pole	SAMPLED			2																										2							1	
22	46.060237	-89.004305	256	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	22	4	Muck	Pole	SAMPLED			2																										2								
23	46.059517	-89.004318	259	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	23	3	Muck	Pole	SAMPLED			2	V																										2								
24	46.058797	-89.004331	272	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	24	3	Muck	Pole	SAMPLED			3																								1			3								
25	46.058078	-89.004344	277	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	25	3	Muck	Pole	SAMPLED			2																										2								
26	46.057358	-89.004357	290	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	26	3	Muck	Pole	SAMPLED			2									1																	2								
27	46.056638	-89.004370	293	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	27	3	Sand	Pole	SAMPLED			2																							2				1						1	
28	46.055918	-89.004383	306	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	28	1	Sand	Pole	SAMPLED			1					1							1					1																
29	46.051598	-89.004461	415	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	29	3	Muck	Pole	SAMPLED			1																1																		
30	46.050878	-89.004474	414	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	30	3	Muck	Pole	SAMPLED			1																1									1								1	
31	46.050158	-89.004487	408	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	31	3	Muck	Pole	SAMPLED																			3									1								
32	46.049439	-89.004499	401	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	32	3	Muck	Pole	SAMPLED			3									1							1								1		3								
33	46.048719	-89.004512	396	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	33	3	Muck	Pole	SAMPLED			3									1									1								2								
34	46.047999	-89.004525	392	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	34	2	Muck	Pole	SAMPLED			1																1		1								1								
35	46.047279	-89.004538	386	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	35	3	Muck	Pole	SAMPLED			3									1																	3								
36	46.046559	-89.004551	385	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	36	0			NONNAVIGABLE (PLANTS)																																							
37	46.045839	-89.004564	384	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	37	0			NONNAVIGABLE (PLANTS)																																							
38	46.062388	-89.003232	230	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	38	3	Muck	Pole	SAMPLED			2									1																	2								
39	46.061668	-89.003245	241	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	39	3	Muck	Pole	SAMPLED			2									1																1	2								
40	46.060948	-89.003258	244	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	40	4	Muck	Pole	SAMPLED			2																										2							1	
41	46.060228	-89.003271	255	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	41	4	Muck	Pole	SAMPLED			3																1								1		3								
42	46.059508	-89.003284	260	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	42	5	Muck	Pole	SAMPLED			3	V			1					1								1								1		3								
43	46.058788	-89.003297	271	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	43	4	Muck	Pole	SAMPLED			2									1																	2							1	
44	46.058068	-89.003310	278	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	44	4	Muck	Pole	SAMPLED			2									1														1		1								
45	46.057349	-89.003323	289	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	45	4	Muck	Pole	SAMPLED			2									1														1		2								
46	46.056629	-89.003336	294	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	46	4	Muck	Pole	SAMPLED			2									1								1									2								
47	46.055909	-89.003349	305	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	47	3	Muck	Pole	SAMPLED			2																										2								
48	46.055189	-89.003362	307	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	48	3	Sand	Pole	SAMPLED			1																1																	1	
49	46.054469	-89.003375	422	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	49	1	Sand	Pole	SAMPLED			1		1									1					1																
50	46.051589	-89.003427	416	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	50	3	Muck	Pole	SAMPLED			3																3																		
51	46.050869	-89.003440	413	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	51	3	Muck	Pole	SAMPLED			3																3									1								
52	46.050149	-89.003453	410	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	52	3	Muck	Pole	SAMPLED			3									1								1									3							1	
53	46.049430	-89.003466	400	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	53	3	Muck	Pole	SAMPLED			3									1								1								1		3						1	
54	46.048710	-89.003479	397	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	54	3	Muck	Pole	SAMPLED			3									1								1									3								
55	46.047990	-89.003491	390	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	55	3	Muck	Pole	SAMPLED			3									1								1									3								
56	46.047270	-89.003504	387	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	56	3	Muck	Pole	SAMPLED			3									1								3									1						1		
57	46.046550	-89.003517	382	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	57	3	Muck	Pole	SAMPLED			2									1								1									2								
58	46.045830	-89.003530	383	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	58	4	Muck	Pole	SAMPLED			1																										1								
59	46.063099	-89.002185	229	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	59	4	Muck	Pole	SAMPLED			1																									1		1								
60	46.062379	-89.002198	231	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	60	3	Muck	Pole	SAMPLED			3									1																	3								
61	46.061659	-89.002211	240	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	61	4	Muck	Pole	SAMPLED			2																								1		2							1	
62	46.060939	-89.002224	245	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	62	4	Muck	Pole	SAMPLED			2									1														1		2								
63	46.060219	-89.002237	254	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	63	4	Muck	Pole	SAMPLED			2									1																	2							1	
64	46.059499	-89.002250	261	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	64	4	Muck	Pole	SAMPLED			2									1																	2						1	1	
65	46.058779	-89.002263	270	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	65	4	Muck	Pole	SAMPLED			2			1																				1		2		1						
66	46.058059	-89.002276	279	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	66	6	Muck	Pole	SAMPLED			3																								1		3								
67	46.057340	-89.002289	288	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	67	4	Muck	Pole	SAMPLED			2																										2							1	

Point Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	ID	Lake Name	County	Date	Field Crew	Point Number	Depth (ft)	Sediment	Pole; Rope	Comments	Notes	Nuisance	Total Rake Fullness	Myriophyllum spicatum	Brasenia schreberi	Bidens beckii	Ceratophyllum demersum	Chara spp.	Elatine minima	Eleocharis acicularis	Eleocharis palustris	Elodea canadensis	Eriocaulon aquaticum	Isoetes spp.	Juncus pelocarpus	Myriophyllum sibiricum	Myriophyllum tenellum	Najas flexilis	Najas guadalupensis	Nuphar variegata	Nymphaea odorata	Potamogeton amplifolius	Potamogeton berchtoldii	Potamogeton foliosus	Potamogeton gramineus	Potamogeton illinoensis	Potamogeton praelongus	Potamogeton pusillus	Potamogeton richardsonii	Potamogeton robbinsii	Potamogeton strictifolius	Potamogeton zosteriformis	Ranunculus aquatilis	Schoenoplectus acutus	Schoenoplectus tabernaemontani	Utricularia intermedia	Utricularia vulgaris	Vallisneria americana	Large-leaf and white-stem pondweed	White-stem and clasping-leaf pondweed
68	46.056620	-89.002302	295	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	68	4	Muck	Pole	SAMPLED			2								1							1							1			2										
69	46.055900	-89.002315	304	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	69	3	Muck	Pole	SAMPLED			2								1							1							1			21										
70	46.055180	-89.002328	308	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	70	3	Muck	Pole	SAMPLED			2																									2										
71	46.054460	-89.002341	421	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	71	2	Sand	Pole	SAMPLED			1								1																								1				
72	46.053740	-89.002354	420	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	72	2	Sand	Pole	SAMPLED			1		1			1					1		1									1				1										
73	46.053020	-89.002367	419	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	73	0			NONNAVIGABLE (PLANTS)																																								
74	46.052300	-89.002380	418	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	74	3	Muck	Pole	SAMPLED			2															2										1										
75	46.051580	-89.002393	417	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	75	3	Muck	Pole	SAMPLED			3								1							3										1										
76	46.050860	-89.002406	412	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	76	3	Muck	Pole	SAMPLED			3															3																					
77	46.050140	-89.002419	411	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	77	4	Muck	Pole	SAMPLED			3								1							1										3										
78	46.049421	-89.002432	399	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	78	3	Muck	Pole	SAMPLED			3								1							2										1							1	1		
79	46.048701	-89.002445	398	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	79	3	Muck	Pole	SAMPLED			2								1							1										2								1		
80	46.047981	-89.002458	389	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	80	3	Muck	Pole	SAMPLED			3								1							1									1	2							1		
81	46.047261	-89.002471	388	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	81	3	Muck	Pole	SAMPLED			3								1							3										1										
82	46.046541	-89.002483	381	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	82	2	Muck	Pole	SAMPLED			2								2										1							1										
83	46.045821	-89.002496	380	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	83	0			NONNAVIGABLE (PLANTS)																																								
84	46.064530	-89.001125	220	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	84	1	Sand	Pole	SAMPLED			1						1																			1										
85	46.063810	-89.001138	221	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	85	4	Muck	Pole	SAMPLED			3	1							1																		2										
86	46.063090	-89.001151	228	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	86	4	Muck	Pole	SAMPLED			3	V							1																1		3										
87	46.062370	-89.001164	232	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	87	4	Muck	Pole	SAMPLED			2	V							1							1										2								1		
88	46.061650	-89.001177	239	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	88	4	Muck	Pole	SAMPLED			2								1																		2								1		
89	46.060930	-89.001190	246	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	89	4	Muck	Pole	SAMPLED			2																										2										
90	46.060210	-89.001203	253	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	90	4	Muck	Pole	SAMPLED			2																								1		2										
91	46.059490	-89.001216	262	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	91	4	Muck	Pole	SAMPLED			2	V							1							1										2										
92	46.058770	-89.001229	269	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	92	5	Muck	Pole	SAMPLED			2	V		1																				1		2		1								
93	46.058050	-89.001242	280	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	93	9	Muck	Pole	SAMPLED			2				1				1																1					1						
94	46.057331	-89.001255	287	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	94	6	Muck	Pole	SAMPLED			2								1							1										2										
95	46.056611	-89.001268	296	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	95	4	Muck	Pole	SAMPLED			3																								1		3								1		
96	46.055891	-89.001281	303	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	96	3	Muck	Pole	SAMPLED			2								1																1		2										
97	46.055171	-89.001294	309	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	97	3	Muck	Pole	SAMPLED			2																								1		2										
98	46.054451	-89.001307	359	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	98	4	Muck	Pole	SAMPLED			2								1																		2										
99	46.053731	-89.001320	360	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	99	4	Sand	Pole	SAMPLED			0																																			
100	46.053011	-89.001333	362	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	100	4	Sand	Pole	SAMPLED			1	1							1							1										1										
101	46.052291	-89.001346	364	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	101	0			NONNAVIGABLE (PLANTS)																																								
102	46.051571	-89.001359	365	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	102	0			NONNAVIGABLE (PLANTS)																																								
103	46.050851	-89.001372	366	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	103	4	Muck	Pole	SAMPLED			3								1							1										1		3										
104	46.050131	-89.001385	371	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	104	4	Muck	Pole	SAMPLED			3								1							1												2										
105	46.049411	-89.001398	372	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	105	3	Muck	Pole	SAMPLED			3															1												3										
106	46.048692	-89.001411	375	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	106	3	Muck	Pole	SAMPLED			2															2											1										
107	46.047972	-89.001424	376	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	107	3	Muck	Pole	SAMPLED			3															3												1										
108	46.047252	-89.001437	378	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	108	3	Muck	Pole	SAMPLED			2								1							2												1										
109	46.046532	-89.001450	379	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	109	3	Muck	Pole	SAMPLED			2													1		2										1		1										
110	46.064521	-89.000091	219	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	110	3	Sand	Pole	SAMPLED			1					1						1			1								1															
111	46.063801	-89.000104	222	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	111	3	Muck	Pole	SAMPLED			2	V							1																		2										
112	46.063081	-89.000117	227	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	112	4	Muck	Pole	SAMPLED			3								1																		3										
113	46.062361	-89.000130	233	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	113	4	Muck	Pole	SAMPLED			2	1							1																1		2										
114	46.061641	-89.000143	238	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	114	4	Muck	Pole	SAMPLED			2				1				1																		2										
115	46.060921	-89.000156	247	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	115	4	Muck	Pole	SAMPLED			2								1																		2									1	
116	46.060201	-89.000169	252	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	116	5	Muck	Pole	SAMPLED			3								1																1		2		1							1	
117	46.059481	-89.000182	263	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	117	11	Muck	Pole	SAMPLED			2								1																		2										
118	46.058761	-89.000195	268	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	118	14	Muck	Pole	SAMPLED			1				1																																
119	46.058041	-89.000208	281	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	119	5	Muck	Pole	SAMPLED			3								1																		3										
120	46.057321	-89.000221	286	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	120	4	Muck	Pole	SAMPLED			3																										3										
121	46.056602	-89.000234	297	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	121	3	Muck	Pole	SAMPLED			2								1																1		2		1							1	
122	46.055882	-89.000247	302	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	122	3	Muck	Pole	SAMPLED			2								1																		2										
123	46.055162	-89.000260	310	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	123	3	Muck	Pole	SAMPLED			3								1																1		3										
124	46.054442	-89.000273	358	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	124	3	Muck	Pole	SAMPLED			3															3										1										
125	46.053722	-89.000286	361	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	125	0			NONNAVIGABLE (PLANTS)																																								
126	46.053002	-89.000299	363	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	126	0			NONNAVIGABLE (PLANTS)																																								
127	46.052282	-89.000312	368	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	127	0			NONNAVIGABLE (PLANTS)																																								
128	46.051562	-89.000325	367	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	128	3	Muck	Pole	SAMPLED			2								1							1										1		2										
129	46.050842	-89.000338	369	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	129	3	Muck	Pole	SAMPLED			3								1							1												3										
130	46.050122	-89.000351	370	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	130	3	Muck	Pole	SAMPLED			3								1							1										1		2										
131	46.049402	-89.000364	373	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	131	3	Muck	Pole	SAMPLED			1															1												1										
132	46.048683	-89.000377	374	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	132	3	Muck	Pole	SAMPLED			3								1							2												1										
133	46.047963	-89.000390	377	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	133	0			DOCK																																							
134	46.064512	-88.999057	218	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	134	5	Muck	Pole	SAMPLED			3	V							1																1		3										

Point Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	ID	Lake Name	County	Date	Field Crew	Point Number	Depth (ft)	Sediment	Pole; Rope	Comments	Notes	Nuisance	Total Rake Fullness	Myriophyllum spicatum	Brasenia schreberi	Bidens beckii	Ceratophyllum demersum	Chara spp.	Eleocharis acicularis	Eleocharis palustris	Elodea canadensis	Eriocaulon aquaticum	Isoetes spp.	Juncus pelocarpus	Myriophyllum sibiricum	Myriophyllum tenellum	Najas flexilis	Najas guadalupensis	Nuphar variegata	Nymphaea odorata	Potamogeton amplifolius	Potamogeton berchtoldii	Potamogeton foliosus	Potamogeton gramineus	Potamogeton illinoensis	Potamogeton praelongus	Potamogeton pusillus	Potamogeton richardsonii	Potamogeton robbinsii	Potamogeton strictifolius	Potamogeton zosteriformis	Ranunculus aquatilis	Schoenoplectus acutus	Schoenoplectus tabernaemontani	Utricularia intermedia	Utricularia vulgaris	Vallisneria americana	Large-leaf and white-stem pondweed	White-stem and clasping-leaf pondweed
135	46.063792	-88.999070	223	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	135	4	Muck	Pole	SAMPLED			3				1				1																3								1	
136	46.063072	-88.999083	226	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	136	5	Muck	Pole	SAMPLED			2								1																2								1	
137	46.062352	-88.999096	234	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	137	5	Muck	Pole	SAMPLED			3								1														1			3								
138	46.061632	-88.999109	237	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	138	6	Muck	Pole	SAMPLED			3								2																2								
139	46.060912	-88.999122	248	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	139	7	Muck	Pole	SAMPLED			2								1														1			1	1						
140	46.060192	-88.999135	251	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	140	9	Muck	Pole	SAMPLED			3				1				1														1			1	2						
141	46.059472	-88.999148	264	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	141	9	Muck	Pole	SAMPLED			2	1			1																		1			1	1						
142	46.058752	-88.999161	267	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	142	5	Muck	Pole	SAMPLED			3								1														1			3								
143	46.058032	-88.999174	282	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	143	4	Muck	Pole	SAMPLED			2																								2								
144	46.057312	-88.999187	285	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	144	4	Muck	Pole	SAMPLED			2																								1			2								
145	46.056593	-88.999200	298	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	145	4	Muck	Pole	SAMPLED			2								1																2								
146	46.055873	-88.999213	301	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	146	4	Muck	Pole	SAMPLED			2								1							1										2								
147	46.055153	-88.999226	311	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	147	4	Muck	Pole	SAMPLED			3								1							1								1			2								
148	46.054433	-88.999239	357	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	148	4	Muck	Pole	SAMPLED			2								1							1										2							1	
149	46.053713	-88.999252	356	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	149	4	Muck	Pole	SAMPLED			1															1										1								
150	46.052993	-88.999265	355	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	150	3	Muck	Pole	SAMPLED			2																								2								
151	46.052273	-88.999278	354	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	151	0			NONNAVIGABLE (PLANTS)																																						
152	46.051553	-88.999291	353	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	152	3	Muck	Pole	SAMPLED			1															1										1								
153	46.050833	-88.999304	352	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	153	3	Muck	Pole	SAMPLED			1															1										1							1	
154	46.050113	-88.999317	351	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	154	3	Muck	Pole	SAMPLED			3								1							3										1								
155	46.049393	-88.999330	350	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	155	3	Muck	Pole	SAMPLED			2								1							1										2								
156	46.048674	-88.999343	349	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	156	0			NONNAVIGABLE (PLANTS)																																						
157	46.065222	-88.998009	216	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	157	6	Muck	Pole	SAMPLED			3	V							1							3										1								
158	46.064502	-88.998023	217	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	158	6	Muck	Pole	SAMPLED			2								1																2								
159	46.063783	-88.998036	224	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	159	7	Muck	Pole	SAMPLED			2				1				1														1			2	1						
160	46.063063	-88.998049	225	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	160	9	Muck	Pole	SAMPLED			2																								2								
161	46.062343	-88.998062	235	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	161	9	Muck	Pole	SAMPLED			2				1				1														2			2								
162	46.061623	-88.998075	236	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	162	9	Muck	Pole	SAMPLED			2	V			2																		1				1							
163	46.060903	-88.998088	249	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	163	10	Muck	Pole	SAMPLED			2																						1			1								
164	46.060183	-88.998101	250	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	164	11	Muck	Pole	SAMPLED			2																						1				2							
165	46.059463	-88.998114	265	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	165	7	Muck	Pole	SAMPLED			2																								2	1							
166	46.058743	-88.998127	266	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	166	4	Muck	Pole	SAMPLED			3								1																3								
167	46.058023	-88.998140	283	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	167	4	Muck	Pole	SAMPLED			3																								3								
168	46.057303	-88.998153	284	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	168	4	Muck	Pole	SAMPLED			2								1																2							1	
169	46.056583	-88.998166	299	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	169	4	Muck	Pole	SAMPLED			2								1							1								1			2							
170	46.055864	-88.998179	300	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	170	4	Muck	Pole	SAMPLED			2								1							1								1			2							
171	46.055144	-88.998192	312	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	171	4	Muck	Pole	SAMPLED			2								1							1								1			2							
172	46.054424	-88.998205	313	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	172	3	Sand	Pole	SAMPLED			1										1														1								
173	46.053704	-88.998218	341	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	173	3	Muck	Pole	SAMPLED			2															2										1								
174	46.052984	-88.998231	342	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	174	3	Muck	Pole	SAMPLED				1													1																				
175	46.052264	-88.998244	343	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	175	3	Muck	Pole	SAMPLED			1																								1								
176	46.051544	-88.998257	344	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	176	3	Muck	Pole	SAMPLED			1															1										1								
177	46.050824	-88.998270	345	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	177	3	Muck	Pole	SAMPLED			1															1										1								
178	46.050104	-88.998283	346	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	178	3	Muck	Pole	SAMPLED			1															1																			1	
179	46.049384	-88.998296	347	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	179	2	Muck	Pole	SAMPLED			2															1										2								
180	46.048664	-88.998309	348	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	180	2	Muck	Pole	SAMPLED			2								1																1								
181	46.066653	-88.996949	200	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	181	2	Rock	Pole	SAMPLED			1	V									1															1								
182	46.065933	-88.996962	201	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	182	7	Muck	Pole	SAMPLED			3															1										3								
183	46.065213	-88.996975	202	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	183	9	Muck	Pole	SAMPLED			2	V			1																		1				1							
184	46.064493	-88.996988	203	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	184	10	Muck	Pole	SAMPLED			3				1																		1	1	1		2							
###	##########	##########	###	Big Sand Lake	Vilas	########	BTB & RAK	###	11	Muck	Pole	SAMPLED			2				2											1										1			1							
###	##########	##########	###	Big Sand Lake	Vilas	########	BTB & RAK	###	13	Muck	Pole	SAMPLED			2				1																				1		1								
###	##########	##########	###	Big Sand Lake	Vilas	########	BTB & RAK	###	13	Muck	Pole	SAMPLED			2				2																								1	1						
###	##########	##########	###	Big Sand Lake	Vilas	########	BTB & RAK	###	13	Muck	Pole	SAMPLED			1																												1	1						
###	##########	##########	###	Big Sand Lake	Vilas	########	BTB & RAK	###	14	Muck	Pole	SAMPLED			1								1																				1								
###	##########	##########	###	Big Sand Lake	Vilas	########	BTB & RAK	###	10	Muck	Pole	SAMPLED			2	1			1																									1							
###	##########	##########	###	Big Sand Lake	Vilas	########	BTB & RAK	###	8	Muck	Pole	SAMPLED			2																										1			2	1						
###	##########	##########	###	Big Sand Lake	Vilas	########	BTB & RAK	###	5	Muck	Pole	SAMPLED			3																													3							
###	##########	##########	###	Big Sand Lake	Vilas	########	BTB & RAK	###	4	Muck	Pole	SAMPLED			2															1												2							1	
###	##########	##########	###	Big Sand Lake	Vilas	########	BTB & RAK	###	4	Muck	Pole	SAMPLED			2																								1		2							1	
###	##########	##########	###	Big Sand Lake	Vilas	########	BTB & RAK	###	4	Muck	Pole	SAMPLED			2																										1		2							1	
###	##########	##########	###	Big Sand Lake	Vilas	########	BTB & RAK	###	5	Muck	Pole	SAMPLED			2								1																				2							
###	##########	##########	###	Big Sand Lake	Vilas	########	BTB & RAK	###	2	Muck	Pole	SAMPLED			2															1												2							
###	##########	##########	###	Big Sand Lake	Vilas	########	BTB & RAK	###	2	Muck	Pole	SAMPLED			2															1												2							
###	##########	##########	###	Big Sand Lake	Vilas	########	BTB & RAK	###	2	Muck	Pole	SAMPLED			1								1																				1							
###	##########	##########	###	Big Sand Lake	Vilas	########	BTB & RAK	###	2	Muck	Pole	SAMPLED			1	V							1																				1							
###	##########	##########	###	Big Sand Lake	Vilas	########	BTB & RAK	###	2	Muck	Pole	SAMPLED			1																												1							

Point Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	ID	Lake Name	County	Date	Field Crew	Point Number	Depth (ft)	Sediment	Pole; Rope	Comments	Notes	Nuisance	Total Rake Fullness	Myriophyllum spicatum	Brasenia schreberi	Bidens beckii	Ceratophyllum demersum	Chara spp.	Elatine minima	Eleocharis acicularis	Eleocharis palustris	Elodea canadensis	Eriocaulon aquaticum	Isoetes spp.	Juncus pelocarpus	Myriophyllum sibiricum	Myriophyllum tenellum	Najas flexilis	Najas guadalupensis	Nuphar variegata	Nymphaea odorata	Potamogeton amplifolius	Potamogeton berchtoldii	Potamogeton foliosus	Potamogeton gramineus	Potamogeton illinoensis	Potamogeton praelongus	Potamogeton pusillus	Potamogeton richardsonii	Potamogeton robbinsii	Potamogeton strictifolius	Potamogeton zosteriformis	Ranunculus aquatilis	Schoenoplectus acutus	Schoenoplectus tabernaemontani	Utricularia intermedia	Utricularia vulgaris	Vallisneria americana	Large-leaf and white-stem pondweed	White-stem and clasping-leaf pondweed
###	#########	#########	###	Big Sand Lake	Vilas	########	BTB & RAK	###	2	Muck	Pole	SAMPLED			1									1																	1									
###	#########	#########	###	Big Sand Lake	Vilas	########	BTB & RAK	###	3	Muck	Pole	SAMPLED			1									1																										
###	#########	#########	###	Big Sand Lake	Vilas	########	BTB & RAK	###	2	Muck	Pole	SAMPLED			2									1						1											2								
###	#########	#########	###	Big Sand Lake	Vilas	########	BTB & RAK	###	2	Muck	Pole	SAMPLED			1									1						1	1										1								
###	#########	#########	###	Big Sand Lake	Vilas	########	BTB & RAK	###	8	Muck	Pole	SAMPLED			3				1											3										1		1						
###	#########	#########	###	Big Sand Lake	Vilas	########	BTB & RAK	###	9	Muck	Pole	SAMPLED			2	V								1														2		1								
###	#########	#########	###	Big Sand Lake	Vilas	########	BTB & RAK	###	13	Muck	Pole	SAMPLED			2				1																		1			2							
###	#########	#########	###	Big Sand Lake	Vilas	########	BTB & RAK	###	13	Muck	Pole	SAMPLED			1									1						1										1								
###	#########	#########	###	Big Sand Lake	Vilas	########	BTB & RAK	###	14	Muck	Pole	SAMPLED			2				1																				1		2						
###	#########	#########	###	Big Sand Lake	Vilas	########	BTB & RAK	###	14	Muck	Pole	SAMPLED			2				2																						1						
###	#########	#########	###	Big Sand Lake	Vilas	########	BTB & RAK	###	13	Muck	Pole	SAMPLED			3				2					1														1		1		1						
213	46.061605	-88.996006	192	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	213	14	Muck	Pole	SAMPLED			2				2					1															1								
214	46.060885	-88.996019	191	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	214	14	Muck	Pole	SAMPLED			2				2																						1						
215	46.060165	-88.996032	190	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	215	12	Muck	Pole	SAMPLED			2				2												1						1		1	1						
216	46.059445	-88.996045	189	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	216	9	Muck	Pole	SAMPLED			2				1					1													2		1	1						
217	46.058725	-88.996059	188	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	217	5	Muck	Pole	SAMPLED			3									1																3							
218	46.058005	-88.996072	187	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	218	5	Muck	Pole	SAMPLED			3									1														1		3							
219	46.057285	-88.996085	186	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	219	4	Muck	Pole	SAMPLED			3									1																3		1					1
220	46.056565	-88.996098	185	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	220	4	Muck	Pole	SAMPLED			2									1							1								2						1	
221	46.055845	-88.996111	184	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	221	3	Muck	Pole	SAMPLED			3	V														3																
222	46.054406	-88.996137	315	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	222	2	Muck	Pole	SAMPLED			1																									1							
223	46.053686	-88.99615	340	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	223	2	Muck	Pole	SAMPLED			2															1										2							
224	46.052966	-88.996163	337	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	224	2	Muck	Pole	SAMPLED			1															1										1							
225	46.052246	-88.996176	336	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	225	2	Muck	Pole	SAMPLED			1															1																
226	46.051526	-88.996189	333	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	226	2	Muck	Pole	SAMPLED			1															1										1							
227	46.050806	-88.996202	332	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	227	2	Muck	Pole	SAMPLED			1																1									1							
228	46.050086	-88.996215	326	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	228	2	Muck	Pole	SAMPLED			2															1	1									1							
229	46.049366	-88.996228	327	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	229	0			NONNAVIGABLE (PLANTS)																																					
230	46.067355	-88.994868	168	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	230	2	Rock	Pole	SAMPLED			1	1																												1				
231	46.066635	-88.994881	169	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	231	11	Muck	Pole	SAMPLED			2	V			1	1																	1			1							
232	46.065915	-88.994894	170	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	232	15		Rope	SAMPLED			1				1					1						1										1							
233	46.065195	-88.994907	171	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	233	15		Rope	SAMPLED			2	1			1					2																1	1						
234	46.064475	-88.99492	172	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	234	15		Rope	SAMPLED			2				2					1																							
235	46.063755	-88.994933	173	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	235	15		Rope	SAMPLED			2									2						1									1	1							
236	46.063035	-88.994946	174	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	236	16		Rope	SAMPLED			2				1					1															1	1	1						
237	46.062315	-88.994959	175	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	237	15		Rope	SAMPLED			2				1					1															1			2					
238	46.061596	-88.994972	176	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	238	15		Rope	SAMPLED			2				1					1						1									1			2					
239	46.060876	-88.994985	177	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	239	14	Muck	Pole	SAMPLED			3				1					1						1										1	2						
240	46.060156	-88.994998	178	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	240	13	Muck	Pole	SAMPLED			2				2																				1		1	1					
241	46.059436	-88.995011	179	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	241	6	Muck	Pole	SAMPLED			2	2			1																				1	1	1						
242	46.058716	-88.995024	180	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	242	8	Muck	Pole	SAMPLED			3																									3		1					
243	46.057996	-88.995037	181	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	243	6	Muck	Pole	SAMPLED			2																									2							1
244	46.057276	-88.995051	182	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	244	4	Muck	Pole	SAMPLED			2	V								1																2							
245	46.056556	-88.995064	183	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	245	5	Muck	Pole	SAMPLED			3									1																3							
246	46.054396	-88.995103	316	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	246	2	Muck	Pole	SAMPLED			1		1													1										1							
247	46.053677	-88.995116	317	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	247	2	Muck	Pole	SAMPLED			1																1										1							
248	46.052957	-88.995129	318	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	248	1	Muck	Pole	SAMPLED			1																1										1							
249	46.052237	-88.995142	319	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	249	2	Muck	Pole	SAMPLED			1																1																
250	46.051517	-88.995155	320	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	250	2	Muck	Pole	SAMPLED			1																1										1							
251	46.050797	-88.995168	321	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	251	2	Muck	Pole	SAMPLED			1																										1							
252	46.050077	-88.995181	325	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	252	1	Muck	Pole	SAMPLED			1																1										1							
253	46.067346	-88.993833	167	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	253	2	Rock	Pole	SAMPLED			0																																	
254	46.066626	-88.993846	166	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	254	15		Rope	SAMPLED			2				1																				1		2		1					
255	46.065906	-88.99386	165	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	255	16		Rope	SAMPLED			2				1																								1					
256	46.065186	-88.993873	164	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	256	17		Rope	SAMPLED			1																												1						
257	46.064466	-88.993886	163	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	257	16		Rope	SAMPLED			1																												1						
258	46.063746	-88.993899	162	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	258	16		Pole	SAMPLED			1									1																		1							
259	46.063026	-88.993912	161	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	259	16		Rope	SAMPLED			0																																	
260	46.062306	-88.993925	160	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	260	16		Rope	SAMPLED			2									2							1										1							
261	46.061586	-88.993938	159	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	261	16		Rope	SAMPLED			3				1					3																1		1		1				
262	46.060867	-88.993951	158	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	262	15		Rope	SAMPLED			2				1					1																2			1				
263	46.060147	-88.993964	157	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	263	14	Muck	Pole	SAMPLED			1																												1					
264	46.059427	-88.993977	156	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	264	11	Muck	Pole	SAMPLED			2	1			1					1														1			1						
265	46.058707	-88.99399	155	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	265	9	Muck	Pole	SAMPLED			2				2					1																1		1					
266	46.057987	-88.994003	154	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	266	8	Muck	Pole	SAMPLED			2				1					1							1										2							
267	46.057267	-88.994016	153	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	267	5	Muck	Pole	SAMPLED			3									1							1								1		3						
268	46.056547	-88.99403	152	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	268	4	Muck	Pole	SAMPLED			2	V								1							1										2						1	

Point Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	ID	Lake Name	County	Date	Field Crew	Point Number	Depth (ft)	Sediment	Pole; Rope	Comments	Notes	Nuisance	Total Rake Fullness	Myriophyllum spicatum	Brasenia schreberi	Bidens beckii	Ceratophyllum demersum	Chara spp.	Elatine minima	Eleocharis acicularis	Eleocharis palustris	Elodea canadensis	Eriocaulon aquaticum	Isoetes spp.	Juncus pelocarpus	Myriophyllum sibiricum	Myriophyllum tenellum	Najas flexilis	Najas guadalupensis	Nuphar variegata	Nymphaea odorata	Potamogeton amplifolius	Potamogeton berchtoldii	Potamogeton foliosus	Potamogeton gramineus	Potamogeton illinoensis	Potamogeton praelongus	Potamogeton pusillus	Potamogeton richardsonii	Potamogeton robbinsii	Potamogeton strictifolius	Potamogeton zosteriformis	Ranunculus aquatilis	Schoenoplectus acutus	Schoenoplectus tabernaemontani	Utricularia intermedia	Utricularia vulgaris	Vallisneria americana	Large-leaf and white-stem pondweed	White-stem and clasping-leaf pondweed
269	46.052228	-88.994108	322	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	269	0			SHALLOW																																							
270	46.051508	-88.994121	323	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	270	0			SHALLOW																																							
271	46.050788	-88.994134	324	Big Sand Lake	Vilas	8/4/2015	BTB & RAK	271	0			SHALLOW																																							
272	46.067337	-88.992799	136	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	272	8	Muck	Pole	SAMPLED			3				1											3																1						
273	46.066617	-88.992812	137	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	273	17		Rope	SAMPLED			1									1												1														
274	46.065897	-88.992825	138	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	274	17		Rope	SAMPLED			0																																			
275	46.065177	-88.992838	139	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	275	17		Pole	SAMPLED			1									1																						1						
276	46.064457	-88.992851	140	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	276	17		Rope	SAMPLED			0																																			
277	46.063737	-88.992865	141	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	277	18		Rope	SAMPLED			1									1																											
278	46.063017	-88.992878	142	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	278	17		Rope	SAMPLED			1																														1						
279	46.062297	-88.992891	143	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	279	17		Rope	SAMPLED			1									1																											
280	46.061577	-88.992904	144	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	280	16		Rope	SAMPLED				1																														1						
281	46.060857	-88.992917	145	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	281	16		Rope	SAMPLED			1				1					1																											
282	46.060138	-88.99293	146	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	282	11	Muck	Pole	SAMPLED			2				2					1															1						1						
283	46.059418	-88.992943	147	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	283	10	Muck	Pole	SAMPLED			2				1					1							1							1			2								
284	46.058698	-88.992956	148	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	284	9	Muck	Pole	SAMPLED			2	V																						1			2								
285	46.057978	-88.992969	149	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	285	7	Muck	Pole	SAMPLED			3				1																						3								
286	46.057258	-88.992982	150	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	286	5	Muck	Pole	SAMPLED			2	V								1																	2							1	
287	46.056538	-88.992995	151	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	287	4	Muck	Pole	SAMPLED			2																									2								
288	46.067328	-88.991765	135	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	288	9	Muck	Pole	SAMPLED			2				1					1							2									1	1							
289	46.066608	-88.991778	134	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	289	18		Rope	SAMPLED			0																																			
290	46.065888	-88.991791	133	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	290	18		Rope	SAMPLED			1																												1	1							
291	46.065168	-88.991804	132	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	291	18		Rope	SAMPLED			1									1																											
292	46.064448	-88.991817	131	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	292	18		Rope	SAMPLED			1																	1										1								
293	46.063728	-88.99183	130	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	293	18		Rope	SAMPLED			0																																			
294	46.063008	-88.991844	129	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	294	18		Rope	SAMPLED			0																																			
295	46.062288	-88.991857	128	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	295	18		Rope	SAMPLED			1																															1						
296	46.061568	-88.99187	127	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	296	18		Rope	SAMPLED			0																																			
297	46.060848	-88.991883	126	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	297	16		Rope	SAMPLED			1									1																											
298	46.060128	-88.991896	125	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	298	11	Muck	Pole	SAMPLED			2	1															1								2						1						
299	46.059409	-88.991909	124	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	299	10	Muck	Pole	SAMPLED			3				2					1														1						1						
300	46.058689	-88.991922	123	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	300	9	Muck	Pole	SAMPLED			2									1																	2								
301	46.057969	-88.991935	120	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	301	2	Sand	Pole	SAMPLED			1									1		1	1		1																				
302	46.057249	-88.991948	121	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	302	2	Sand	Pole	SAMPLED			1							1					1																						
303	46.056529	-88.991961	122	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	303	2	Sand	Pole	SAMPLED			1									1		1																						1		
304	46.068038	-88.990717	105	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	304	4	Sand	Pole	SAMPLED			1					1		1				1				1						1										1		
305	46.067318	-88.990731	106	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	305	18		Rope	SAMPLED			1																									1										
306	46.066598	-88.990744	107	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	306	18		Rope	SAMPLED			0																																			
307	46.065879	-88.990757	108	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	307	18		Pole	SAMPLED			0																																			
308	46.065159	-88.99077	109	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	308	18		Rope	SAMPLED			0																																			
309	46.064439	-88.990783	110	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	309	19		Rope	SAMPLED			1									1																											
310	46.063719	-88.990796	111	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	310	19		Rope	SAMPLED			1									1								1																		
311	46.062999	-88.990809	112	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	311	18		Rope	SAMPLED			0																																			
312	46.062279	-88.990822	113	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	312	18		Rope	SAMPLED			0																																			
313	46.061559	-88.990836	114	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	313	18		Rope	SAMPLED			0																																			
314	46.060839	-88.990849	115	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	314	13	Muck	Pole	SAMPLED			2				1																			1	1		2								
315	46.060119	-88.990862	116	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	315	11	Muck	Pole	SAMPLED			2				1					1														1			2								
316	46.059399	-88.990875	117	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	316	9	Muck	Pole	SAMPLED			2	V								1														2			2								
317	46.058679	-88.990888	118	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	317	8	Muck	Pole	SAMPLED			3																								1			3								
318	46.05796	-88.990901	119	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	318	2	Sand	Pole	SAMPLED			1															1									1										
319	46.068749	-88.98967	79	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	319	2	Rock	Pole	SAMPLED			0																																			
320	46.068029	-88.989683	80	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	320	17		Rope	SAMPLED			1									1																						1						
321	46.067309	-88.989696	81	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	321	19		Pole	SAMPLED			0																																			
322	46.066589	-88.989709	82	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	322	18		Rope	SAMPLED			0																																			
323	46.065869	-88.989723	83	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	323	19		Rope	SAMPLED			0																																			
324	46.06515	-88.989736	84	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	324	19		Rope	SAMPLED			0																																			
325	46.06443	-88.989749	85	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	325	19		Rope	SAMPLED			1				1																															
326	46.06371	-88.989762	86	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	326	19		Rope	SAMPLED			0																																			
327	46.06299	-88.989775	87	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	327	20		Pole	SAMPLED			0																																			
328	46.06227	-88.989788	88	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	328	20		Rope	SAMPLED			0																																			
329	46.06155	-88.989801	89	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	329	20		Rope	SAMPLED			0																																			
330	46.06083	-88.989815	90	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	330	12	Muck	Pole	SAMPLED			2				1					1														1			1								
331	46.06011	-88.989828	91	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	331	11	Muck	Pole	SAMPLED			2	1			2											1								1	1					1						
332	46.05939	-88.989841	92	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	332	9	Muck	Pole	SAMPLED			2									1														1			2			1						
333	46.05867	-88.989854	93	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	333	9	Muck	Pole	SAMPLED			3																									3								
334	46.05795	-88.989867	94	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	334	3	Sand	Pole	SAMPLED			1					1									1									1										1		
335	46.06946	-88.988623	78	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	335	3	Rock	Pole	SAMPLED			1						1																1												

Point Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	ID	Lake Name	County	Date	Field Crew	Point Number	Depth (ft)	Sediment	Pole; Rope	Comments	Notes	Nuisance	Total Rake Fullness	Myriophyllum spicatum	Brasenia schreberi	Bidens beckii	Ceratophyllum demersum	Chara spp.	Elatine minima	Eleocharis acicularis	Eleocharis palustris	Elodea canadensis	Eriocaulon aquaticum	Isoetes spp.	Juncus pelocarpus	Myriophyllum sibiricum	Myriophyllum tenellum	Najas flexilis	Najas guadalupensis	Nuphar variegata	Nymphaea odorata	Potamogeton amplifolius	Potamogeton berchtoldii	Potamogeton foliosus	Potamogeton gramineus	Potamogeton illinoensis	Potamogeton praelongus	Potamogeton pusillus	Potamogeton richardsonii	Potamogeton robbinsii	Potamogeton strictifolius	Potamogeton zosteriformis	Ranunculus aquatilis	Schoenoplectus acutus	Schoenoplectus tabernaemontani	Utricularia intermedia	Utricularia vulgaris	Vallisneria americana	Large-leaf and white-stem pondweed	White-stem and clasping-leaf pondweed
336	46.06874	-88.988636	77	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	336	9	Muck	Pole	SAMPLED			3	V			2																			1	1	1	1										
337	46.06802	-88.988649	76	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	337	19		Rope	SAMPLED			0																																					
338	46.0673	-88.988662	75	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	338	19		Rope	SAMPLED			0																																					
339	46.06658	-88.988675	70	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	339	19		Rope	SAMPLED			2	1			1					1																			1								
340	46.06586	-88.988688	71	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	340	20		Rope	SAMPLED			0																																					
341	46.06514	-88.988702	72	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	341	0			DEEP																																								
342	46.06442	-88.988715	104	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	342	20		Rope	SAMPLED			1				1																											1						
343	46.063701	-88.988728	103	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	343	19		Rope	SAMPLED			0																																					
344	46.062981	-88.988741	102	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	344	19		Rope	SAMPLED			0																																					
345	46.062261	-88.988754	101	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	345	20		Rope	SAMPLED			0																																					
346	46.061541	-88.988767	100	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	346	20		Rope	SAMPLED			0																																					
347	46.060821	-88.98878	99	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	347	14	Muck	Pole	SAMPLED			2																																					
348	46.060101	-88.988794	98	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	348	10	Muck	Pole	SAMPLED			2	1			1																			1		1	2									
349	46.059381	-88.988807	97	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	349	9	Muck	Pole	SAMPLED			3									1													1			2								
350	46.058661	-88.98882	96	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	350	8	Muck	Pole	SAMPLED			3				1					1															3		1						
351	46.057941	-88.988833	95	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	351	5	Sand	Pole	SAMPLED			1															1						1													
352	46.070171	-88.987575	65	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	352	0			DOCK																																							
353	46.069451	-88.987588	63	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	353	8	Muck	Pole	SAMPLED			2	1		1	1					1							1						1			1									
354	46.068731	-88.987602	66	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	354	10	Muck	Pole	SAMPLED			2				1					1															2								
355	46.068011	-88.987615	67	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	355	20		Rope	SAMPLED			0																																					
356	46.067291	-88.987628	68	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	356	19		Rope	SAMPLED			0																																					
357	46.066571	-88.987641	69	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	357	0			DEEP																																							
358	46.065851	-88.987654	74	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	358	0			DEEP																																							
359	46.065131	-88.987667	73	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	359	0			DEEP																																							
360	46.064411	-88.98768	0	Big Sand Lake	Vilas	18991230		360	0			DEEP																																						
361	46.063691	-88.987694	271	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	361	0			DEEP																																						
362	46.062972	-88.987707	274	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	362	19		Rope	SAMPLED			0																																					
363	46.062252	-88.98772	276	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	363	19		Rope	SAMPLED			0																																					
364	46.061532	-88.987733	277	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	364	18		Rope	SAMPLED			0																																					
365	46.060812	-88.987746	278	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	365	19		Rope	SAMPLED			0																																					
366	46.060092	-88.987759	279	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	366	13	Sand	Pole	SAMPLED			3																																					1
367	46.059372	-88.987773	280	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	367	10	Muck	Pole	SAMPLED			3	3			1																											1					
368	46.058652	-88.987786	281	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	368	9	Muck	Pole	SAMPLED			3									1																					3					
369	46.057932	-88.987799	282	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	369	5	Sand	Pole	SAMPLED			2																	1						2								1				
370	46.070161	-88.986541	64	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	370	0			TERRESTRIAL																																							
371	46.069442	-88.986554	62	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	371	8	Muck	Pole	SAMPLED			3	V															3																				
372	46.068722	-88.986567	61	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	372	9	Muck	Pole	SAMPLED			2									1														2			2								
373	46.068002	-88.98658	60	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	373	0			DEEP																																							
374	46.067282	-88.986594	59	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	374	0			DEEP																																							
375	46.066562	-88.986607	0	Big Sand Lake	Vilas	18991230		375	0			DEEP																																						
376	46.065842	-88.98662	0	Big Sand Lake	Vilas	18991230		376	0			DEEP																																						
377	46.065122	-88.986633	0	Big Sand Lake	Vilas	18991230		377	0			DEEP																																						
378	46.064402	-88.986646	0	Big Sand Lake	Vilas	18991230		378	0			DEEP																																						
379	46.063682	-88.986659	270	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	379	0			DEEP																																						
380	46.062962	-88.986673	269	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	380	0			DEEP																																						
381	46.062242	-88.986686	268	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	381	19		Rope	SAMPLED			0																																					
382	46.061523	-88.986699	267	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	382	19		Rope	SAMPLED			0																																					
383	46.060803	-88.986712	266	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	383	19		Rope	SAMPLED			0																																					
384	46.060083	-88.986725	265	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	384	13	Sand	Pole	SAMPLED			2				1												2												1		1					
385	46.059363	-88.986738	264	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	385	11	Sand	Pole	SAMPLED			3				1												1									1									
386	46.058643	-88.986752	263	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	386	9	Muck	Pole	SAMPLED			3				1					1															3		1						
387	46.057923	-88.986765	262	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	387	7	Sand	Pole	SAMPLED			3																3																		
388	46.069432	-88.98552	55	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	388	5	Sand	Pole	SAMPLED			1	1			1	1						1				1	1						1												1	
389	46.068712	-88.985533	56	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	389	9	Muck	Pole	SAMPLED			2									1															2									
390	46.067993	-88.985546	57	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	390	17		Rope	SAMPLED			0																																					
391	46.067273	-88.985559	58	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	391	0			DEEP																																							
392	46.066553	-88.985573	0	Big Sand Lake	Vilas	18991230		392	0			DEEP																																						
393	46.065833	-88.985586	0	Big Sand Lake	Vilas	18991230		393	0			DEEP																																						
394	46.065113	-88.985599	0	Big Sand Lake	Vilas	18991230		394	0			DEEP																																						
395	46.064393	-88.985612	0	Big Sand Lake	Vilas	18991230		395	0			DEEP																																						
396	46.063673	-88.985625	0	Big Sand Lake	Vilas	18991230		396	0			DEEP																																						
397	46.062953	-88.985638	272	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	397	0			DEEP																																						
398	46.062233	-88.985652	273	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	398	0			DEEP																																						
399	46.061513	-88.985665	275	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	399	0			DEEP																																						
400	46.060793	-88.985678	257	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	400	0			DEEP																																						
401	46.060074	-88.985691	258	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	401	18		Rope	SAMPLED			0																																					
402	46.059354	-88.985704	259	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	402	11	Sand	Pole	SAMPLED			3	1			1												3									1			1		1					

Point Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	ID	Lake Name	County	Date	Field Crew	Point Number	Depth (ft)	Sediment	Pole; Rope	Comments	Notes	Nuisance	Total Rake Fullness	Myriophyllum spicatum	Brasenia schreberi	Bidens beckii	Ceratophyllum demersum	Chara spp.	Elatine minima	Eleocharis acicularis	Eleocharis palustris	Elodea canadensis	Eriocaulon aquaticum	Isoetes spp.	Juncus pelocarpus	Myriophyllum sibiricum	Myriophyllum tenellum	Najas flexilis	Najas guadalupensis	Nuphar variegata	Nymphaea odorata	Potamogeton amplifolius	Potamogeton berchtoldii	Potamogeton foliosus	Potamogeton gramineus	Potamogeton illinoensis	Potamogeton praelongus	Potamogeton pusillus	Potamogeton richardsonii	Potamogeton robbinsii	Potamogeton strictifolius	Potamogeton zosteriformis	Ranunculus aquatilis	Schoenoplectus acutus	Schoenoplectus tabernaemontani	Utricularia intermedia	Utricularia vulgaris	Vallisneria americana	Large-leaf and white-stem pondweed	White-stem and clasping-leaf pondweed
403	46.058634	-88.985718	260	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	403	9	Muck	Pole	SAMPLED			3								1							3						1			3											
404	46.057914	-88.985731	261	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	404	3	Sand	Pole	SAMPLED			1					1		1														1														
405	46.069423	-88.984485	54	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	405	3	Rock	Pole	SAMPLED			0																																				
406	46.068703	-88.984499	53	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	406	10	Sand	Pole	SAMPLED			1																									1			1									
407	46.067983	-88.984512	52	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	407	17		Rope	SAMPLED			0																																				
408	46.067263	-88.984525	51	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	408	0			DEEP																																							
409	46.066544	-88.984538	0	Big Sand Lake	Vilas	18991230		409	0			DEEP																																						
410	46.065824	-88.984551	0	Big Sand Lake	Vilas	18991230		410	0			DEEP																																						
411	46.065104	-88.984565	0	Big Sand Lake	Vilas	18991230		411	0			DEEP																																						
412	46.064384	-88.984578	0	Big Sand Lake	Vilas	18991230		412	0			DEEP																																						
413	46.063664	-88.984591	0	Big Sand Lake	Vilas	18991230		413	0			DEEP																																						
414	46.062944	-88.984604	0	Big Sand Lake	Vilas	18991230		414	0			DEEP																																						
415	46.062224	-88.984617	0	Big Sand Lake	Vilas	18991230		415	0			DEEP																																						
416	46.061504	-88.984631	0	Big Sand Lake	Vilas	18991230		416	0			DEEP																																						
417	46.060784	-88.984644	256	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	417	0			DEEP																																						
418	46.060064	-88.984657	255	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	418	18		Rope	SAMPLED			0																																				
419	46.059344	-88.98467	254	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	419	11	Muck	Pole	SAMPLED			3																3													2							
420	46.058625	-88.984683	253	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	420	9	Sand	Pole	SAMPLED			3				1																		1	1		3		1								
421	46.057905	-88.984697	252	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	421	3	Sand	Pole	SAMPLED			1					1									1																			1		
422	46.070134	-88.983438	46	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	422	1	Sand	Pole	SAMPLED			1							1				1																							
423	46.069414	-88.983451	47	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	423	6	Sand	Pole	SAMPLED			2	2								1																									1		
424	46.068694	-88.983464	48	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	424	11	Sand	Pole	SAMPLED			2				1					1							2												1						
425	46.067974	-88.983478	49	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	425	20		Rope	SAMPLED			0																																			
426	46.067254	-88.983491	50	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	426	0			DEEP																																						
427	46.066534	-88.983504	0	Big Sand Lake	Vilas	18991230		427	0			DEEP																																						
428	46.065814	-88.983517	0	Big Sand Lake	Vilas	18991230		428	0			DEEP																																						
429	46.065095	-88.98353	0	Big Sand Lake	Vilas	18991230		429	0			DEEP																																						
430	46.064375	-88.983544	0	Big Sand Lake	Vilas	18991230		430	0			DEEP																																						
431	46.063655	-88.983557	0	Big Sand Lake	Vilas	18991230		431	0			DEEP																																						
432	46.062935	-88.98357	0	Big Sand Lake	Vilas	18991230		432	0			DEEP																																						
433	46.062215	-88.983583	0	Big Sand Lake	Vilas	18991230		433	0			DEEP																																						
434	46.061495	-88.983597	0	Big Sand Lake	Vilas	18991230		434	0			DEEP																																						
435	46.060775	-88.98361	247	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	435	0			DEEP																																						
436	46.060055	-88.983623	248	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	436	0			DEEP																																						
437	46.059335	-88.983636	249	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	437	10	Muck	Pole	SAMPLED			3				2												3								1			1									1
438	46.058615	-88.983649	250	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	438	9	Muck	Pole	SAMPLED			2								1							2																			
439	46.057895	-88.983663	251	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	439	2	Sand	Pole	SAMPLED			1							1														2												1		
440	46.070125	-88.982404	45	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	440	3	Sand	Pole	SAMPLED			1					1		1		1					1	1						1											1		
441	46.069405	-88.982417	44	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	441	10	Muck	Pole	SAMPLED			2				1					1						1								1			2								
442	46.068685	-88.98243	43	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	442	12	Muck	Pole	SAMPLED			2				2					1						1								1			1								
443	46.067965	-88.982443	42	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	443	0			DEEP																																						
444	46.067245	-88.982457	0	Big Sand Lake	Vilas	18991230		444	0			DEEP																																						
445	46.066525	-88.98247	0	Big Sand Lake	Vilas	18991230		445	0			DEEP																																						
446	46.065805	-88.982483	0	Big Sand Lake	Vilas	18991230		446	0			DEEP																																						
447	46.065085	-88.982496	0	Big Sand Lake	Vilas	18991230		447	0			DEEP																																						
448	46.064365	-88.98251	0	Big Sand Lake	Vilas	18991230		448	0			DEEP																																						
449	46.063646	-88.982523	0	Big Sand Lake	Vilas	18991230		449	0			DEEP																																						
450	46.062926	-88.982536	0	Big Sand Lake	Vilas	18991230		450	0			DEEP																																						
451	46.062206	-88.982549	0	Big Sand Lake	Vilas	18991230		451	0			DEEP																																						
452	46.061486	-88.982562	0	Big Sand Lake	Vilas	18991230		452	0			DEEP																																						
453	46.060766	-88.982576	246	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	453	0			DEEP																																						
454	46.060046	-88.982589	245	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	454	19		Rope	SAMPLED			0																																				
455	46.059326	-88.982602	244	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	455	11	Sand	Pole	SAMPLED			2				1					1						1								1			2		2						
456	46.058606	-88.982615	243	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	456	9	Sand	Pole	SAMPLED			3								1				1			1								1			2								
457	46.057886	-88.982629	242	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	457	2	Sand	Pole	SAMPLED			1														1																				
458	46.070835	-88.981356	37	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	458	6	Muck	Pole	SAMPLED			2	V			1					1														1	1	1	1								
459	46.070115	-88.981369	38	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	459	9	Muck	Pole	SAMPLED			2	2			1												1																		
460	46.069396	-88.981383	39	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	460	12	Sand	Pole	SAMPLED			2			1													2								1			1								
461	46.068676	-88.981396	40	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	461	14	Sand	Pole	SAMPLED			1																1																		
462	46.067956	-88.981409	41	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	462	0			DEEP																																						
463	46.067236	-88.981422	0	Big Sand Lake	Vilas	18991230		463	0			DEEP																																						
464	46.066516	-88.981436	0	Big Sand Lake	Vilas	18991230		464	0			DEEP																																						
465	46.065796	-88.981449	0	Big Sand Lake	Vilas	18991230		465	0			DEEP																																						
466	46.065076	-88.981462	0	Big Sand Lake	Vilas	18991230		466	0			DEEP																																						
467	46.064356	-88.981475	0	Big Sand Lake	Vilas	18991230		467	0			DEEP																																						
468	46.063636	-88.981489	0	Big Sand Lake	Vilas	18991230		468	0			DEEP																																						
469	46.062916	-88.981502	0	Big Sand Lake	Vilas	18991230		469	0			DEEP																																						

Point Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	ID	Lake Name	County	Date	Field Crew	Point Number	Depth (ft)	Sediment	Pole; Rope	Comments	Notes	Nuisance	Total Rake Fullness	Myriophyllum spicatum	Brasenia schreberi	Bidens beckii	Ceratophyllum demersum	Chara spp.	Elatine minima	Eleocharis acicularis	Eleocharis palustris	Elodea canadensis	Eriocaulon aquaticum	Isoetes spp.	Juncus pelocarpus	Myriophyllum sibiricum	Myriophyllum tenellum	Najas flexilis	Najas guadalupensis	Nuphar variegata	Nymphaea odorata	Potamogeton amplifolius	Potamogeton berchtoldii	Potamogeton foliosus	Potamogeton gramineus	Potamogeton illinoensis	Potamogeton praelongus	Potamogeton pusillus	Potamogeton richardsonii	Potamogeton robbinsii	Potamogeton strictifolius	Potamogeton zosteriformis	Ranunculus aquatilis	Schoenoplectus acutus	Schoenoplectus tabernaemontani	Utricularia intermedia	Utricularia vulgaris	Vallisneria americana	Large-leaf and white-stem pondweed	White-stem and clasping-leaf pondweed
470	46.062196	-88.981515	0	Big Sand Lake	Vilas	18991230		470	0			DEEP																																						
471	46.061477	-88.981528	0	Big Sand Lake	Vilas	18991230		471	0			DEEP																																						
472	46.060757	-88.981542	238	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	472	0			DEEP																																						
473	46.060037	-88.981555	239	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	473	19		Rope	SAMPLED			0																																			
474	46.059317	-88.981568	240	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	474	10	Muck	Pole	SAMPLED			3				1												3																			
475	46.058597	-88.981581	241	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	475	7	Sand	Pole	SAMPLED			1																1																			
476	46.071546	-88.980309	36	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	476	5	Sand	Pole	SAMPLED			2				1	1		1		1					2	1							1											1		
477	46.070826	-88.980322	35	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	477	9	Muck	Pole	SAMPLED			2	V			1					1													1			2								
478	46.070106	-88.980335	34	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	478	14	Sand	Pole	SAMPLED			2				1																			1							1					
479	46.069386	-88.980348	33	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	479	16		Rope	SAMPLED			0																																		
480	46.068666	-88.980362	32	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	480	13	Sand	Pole	SAMPLED			2				1												2											1								
481	46.067946	-88.980375	31	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	481	0			DEEP																																						
482	46.067227	-88.980388	0	Big Sand Lake	Vilas	18991230		482	0			DEEP																																						
483	46.066507	-88.980401	0	Big Sand Lake	Vilas	18991230		483	0			DEEP																																						
484	46.065787	-88.980415	0	Big Sand Lake	Vilas	18991230		484	0			DEEP																																						
485	46.065067	-88.980428	0	Big Sand Lake	Vilas	18991230		485	0			DEEP																																						
486	46.064347	-88.980441	0	Big Sand Lake	Vilas	18991230		486	0			DEEP																																						
487	46.063627	-88.980454	0	Big Sand Lake	Vilas	18991230		487	0			DEEP																																						
488	46.062907	-88.980468	0	Big Sand Lake	Vilas	18991230		488	0			DEEP																																						
489	46.062187	-88.980481	0	Big Sand Lake	Vilas	18991230		489	0			DEEP																																						
490	46.061467	-88.980494	0	Big Sand Lake	Vilas	18991230		490	0			DEEP																																						
491	46.060747	-88.980507	237	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	491	0			DEEP																																						
492	46.060028	-88.980521	236	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	492	15		Rope	SAMPLED			0																																			
493	46.059308	-88.980534	235	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	493	10	Muck	Pole	SAMPLED			3																3																			
494	46.058588	-88.980547	234	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	494	3	Sand	Pole	SAMPLED			1							1																								1				
495	46.071537	-88.979274	25	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	495	7	Sand	Pole	SAMPLED			1					1										1												1							
496	46.070817	-88.979287	26	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	496	15	Muck	Pole	SAMPLED			2									2																		1							
497	46.070097	-88.979301	27	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	497	18		Rope	SAMPLED			0																																		
498	46.069377	-88.979314	28	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	498	18		Rope	SAMPLED			0																																		
499	46.068657	-88.979327	29	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	499	15		Rope	SAMPLED			0																																		
500	46.067937	-88.979341	30	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	500	0			DEEP																																						
501	46.067217	-88.979354	0	Big Sand Lake	Vilas	18991230		501	0			DEEP																																						
502	46.066497	-88.979367	0	Big Sand Lake	Vilas	18991230		502	0			DEEP																																						
503	46.065778	-88.97938	0	Big Sand Lake	Vilas	18991230		503	0			DEEP																																						
504	46.065058	-88.979394	0	Big Sand Lake	Vilas	18991230		504	0			DEEP																																						
505	46.064338	-88.979407	0	Big Sand Lake	Vilas	18991230		505	0			DEEP																																						
506	46.063618	-88.97942	0	Big Sand Lake	Vilas	18991230		506	0			DEEP																																						
507	46.062898	-88.979433	0	Big Sand Lake	Vilas	18991230		507	0			DEEP																																						
508	46.062178	-88.979447	0	Big Sand Lake	Vilas	18991230		508	0			DEEP																																						
509	46.061458	-88.97946	0	Big Sand Lake	Vilas	18991230		509	0			DEEP																																						
510	46.060738	-88.979473	230	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	510	0			DEEP																																						
511	46.060018	-88.979486	231	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	511	12	Sand	Pole	SAMPLED			2																												2		1					1	
512	46.059298	-88.9795	232	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	512	9	Sand	Pole	SAMPLED			3																								1			3							
513	46.058579	-88.979513	233	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	513	0			NONNAVIGABLE (PLANTS)																																						
514	46.071528	-88.97824	24	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	514	7	Sand	Pole	SAMPLED			1					1										1	1							1											
515	46.070808	-88.978253	23	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	515	14	Muck	Pole	SAMPLED			2				1																								2							
516	46.070088	-88.978266	22	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	516	17		Rope	SAMPLED			1									1							1																		
517	46.069368	-88.97828	21	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	517	14	Sand	Pole	SAMPLED			2				1												2												1						
518	46.068648	-88.978293	20	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	518	20		Rope	SAMPLED			0																																		
519	46.067928	-88.978306	19	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	519	0			DEEP																																						
520	46.067208	-88.97832	0	Big Sand Lake	Vilas	18991230		520	0			DEEP																																						
521	46.066488	-88.978333	0	Big Sand Lake	Vilas	18991230		521	0			DEEP																																						
522	46.065768	-88.978346	0	Big Sand Lake	Vilas	18991230		522	0			DEEP																																						
523	46.065048	-88.978359	0	Big Sand Lake	Vilas	18991230		523	0			DEEP																																						
524	46.064329	-88.978373	0	Big Sand Lake	Vilas	18991230		524	0			DEEP																																						
525	46.063609	-88.978386	0	Big Sand Lake	Vilas	18991230		525	0			DEEP																																						
526	46.062889	-88.978399	0	Big Sand Lake	Vilas	18991230		526	0			DEEP																																						
527	46.062169	-88.978413	0	Big Sand Lake	Vilas	18991230		527	0			DEEP																																						
528	46.061449	-88.978426	229	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	528	0			DEEP																																						
529	46.060729	-88.978439	228	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	529	0			DEEP																																						
530	46.060009	-88.978452	227	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	530	11	Sand	Pole	SAMPLED			3	1			1																								1	3							
531	46.059289	-88.978466	226	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	531	8	Sand	Pole	SAMPLED			2																												2							
532	46.071518	-88.977206	13	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	532	7	Sand	Pole	SAMPLED			1	V														1	1																		
533	46.070798	-88.977219	14	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	533	9	Sand	Pole	SAMPLED			2				1	1										2																		
534	46.070078	-88.977232	15	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	534	11	Muck	Pole	SAMPLED			2									1						2																		
535	46.069359	-88.977245	16	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	535	10	Sand	Pole	SAMPLED			2															2																		
536	46.068639	-88.977259	17	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	536	18		Rope	SAMPLED			0																																		

Point Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	ID	Lake Name	County	Date	Field Crew	Point Number	Depth (ft)	Sediment	Pole; Rope	Comments	Notes	Nuisance	Total Rake Fullness	Myriophyllum spicatum	Brasenia schreberi	Bidens beckii	Ceratophyllum demersum	Chara spp.	Elatine minima	Eleocharis acicularis	Eleocharis palustris	Elodea canadensis	Eriocaulon aquaticum	Isoetes spp.	Juncus pelocarpus	Myriophyllum sibiricum	Myriophyllum tenellum	Najas flexilis	Najas guadalupensis	Nuphar variegata	Nymphaea odorata	Potamogeton amplifolius	Potamogeton berchtoldii	Potamogeton foliosus	Potamogeton gramineus	Potamogeton illinoensis	Potamogeton praelongus	Potamogeton pusillus	Potamogeton richardsonii	Potamogeton robbinsii	Potamogeton strictifolius	Potamogeton zosteriformis	Ranunculus aquatilis	Schoenoplectus acutus	Schoenoplectus tabernaemontani	Utricularia intermedia	Utricularia vulgaris	Vallisneria americana	Large-leaf and white-stem pondweed	White-stem and clasping-leaf pondweed
537	46.067919	-88.977272	18	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	537	0			DEEP																																							
538	46.067199	-88.977285	0	Big Sand Lake	Vilas	18991230		538	0			DEEP																																						
539	46.066479	-88.977299	0	Big Sand Lake	Vilas	18991230		539	0			DEEP																																						
540	46.065759	-88.977312	0	Big Sand Lake	Vilas	18991230		540	0			DEEP																																						
541	46.065039	-88.977325	0	Big Sand Lake	Vilas	18991230		541	0			DEEP																																						
542	46.064319	-88.977339	0	Big Sand Lake	Vilas	18991230		542	0			DEEP																																						
543	46.063599	-88.977352	0	Big Sand Lake	Vilas	18991230		543	0			DEEP																																						
544	46.062879	-88.977365	0	Big Sand Lake	Vilas	18991230		544	0			DEEP																																						
545	46.06216	-88.977378	0	Big Sand Lake	Vilas	18991230		545	0			DEEP																																						
546	46.06144	-88.977392	222	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	546	0			DEEP																																						
547	46.06072	-88.977405	223	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	547	12	Sand	Pole	SAMPLED			2									1							2													1		1					
548	46.06	-88.977418	224	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	548	9	Sand	Pole	SAMPLED			3				1											3								1										1
549	46.05928	-88.977432	225	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	549	4	Sand	Pole	SAMPLED			1					1																													
550	46.071509	-88.976171	12	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	550	6	Sand	Pole	SAMPLED			2					1				1						1	1						1										1		
551	46.070789	-88.976185	11	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	551	10	Muck	Pole	SAMPLED			3	1			1					1														1				3						
552	46.070069	-88.976198	10	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	552	10	Muck	Pole	SAMPLED			3									1											1				1			2						
553	46.069349	-88.976211	9	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	553	7	Rock	Pole	SAMPLED			1					1				1						1							1											
554	46.068629	-88.976224	8	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	554	15		Rope	SAMPLED			0																																		
555	46.06791	-88.976238	7	Big Sand Lake	Vilas	8/3/2015	BTB & RAK	555	0			DEEP																																						
556	46.06719	-88.976251	0	Big Sand Lake	Vilas	18991230		556	0			DEEP																																						
557	46.06647	-88.976264	0	Big Sand Lake	Vilas	18991230		557	0			DEEP																																						
558	46.06575	-88.976278	0	Big Sand Lake	Vilas	18991230		558	0			DEEP																																						
559	46.06503	-88.976291	0	Big Sand Lake	Vilas	18991230		559	0			DEEP																																						
560	46.06431	-88.976304	0	Big Sand Lake	Vilas	18991230		560	0			DEEP																																						
561	46.06359	-88.976318	0	Big Sand Lake	Vilas	18991230		561	0			DEEP																																						
562	46.06287	-88.976331	0	Big Sand Lake	Vilas	18991230		562	0			DEEP																																						
563	46.06215	-88.976344	0	Big Sand Lake	Vilas	18991230		563	0			DEEP																																						
564	46.06143	-88.976358	221	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	564	0			DEEP																																						
565	46.06071	-88.976371	220	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	565	12	Sand	Pole	SAMPLED			2																1													1	1					
566	46.059991	-88.976384	219	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	566	10	Sand	Pole	SAMPLED			3	1			1											1							1		1			2						1	
567	46.059271	-88.976397	218	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	567	2	Sand	Pole	SAMPLED			1					1									1							1	1										
568	46.0715	-88.975137	1	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	568	4	Sand	Pole	SAMPLED			1											1				1																1		
569	46.07078	-88.97515	2	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	569	8	Sand	Pole	SAMPLED			1									1														1				1						
570	46.07006	-88.975164	3	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	570	9	Sand	Pole	SAMPLED			1															1								1										
571	46.06934	-88.975177	4	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	571	9	Sand	Pole	SAMPLED			1									1							1											1						
572	46.06862	-88.97519	5	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	572	19		Rope	SAMPLED			0																																		
573	46.0679	-88.975204	150	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	573	0			DEEP																																						
574	46.06718	-88.975217	0	Big Sand Lake	Vilas	18991230		574	0			DEEP																																						
575	46.06646	-88.97523	0	Big Sand Lake	Vilas	18991230		575	0			DEEP																																						
576	46.065741	-88.975243	0	Big Sand Lake	Vilas	18991230		576	0			DEEP																																						
577	46.065021	-88.975257	0	Big Sand Lake	Vilas	18991230		577	0			DEEP																																						
578	46.064301	-88.97527	0	Big Sand Lake	Vilas	18991230		578	0			DEEP																																						
579	46.063581	-88.975283	0	Big Sand Lake	Vilas	18991230		579	0			DEEP																																						
580	46.062861	-88.975297	0	Big Sand Lake	Vilas	18991230		580	0			DEEP																																						
581	46.062141	-88.97531	0	Big Sand Lake	Vilas	18991230		581	0			DEEP																																						
582	46.061421	-88.975323	213	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	582	0			DEEP																																						
583	46.060701	-88.975337	214	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	583	11	Sand	Pole	SAMPLED			3				1					1														1				3						
584	46.059981	-88.97535	216	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	584	9	Sand	Pole	SAMPLED			3				1											3				1														
585	46.059261	-88.975363	217	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	585	2	Sand	Pole	SAMPLED			1																						1											
586	46.07149	-88.974103	10	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	586	2	Rock	Pole	SAMPLED			0																																		
587	46.070771	-88.974116	9	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	587	7	Sand	Pole	SAMPLED			2	1				1				1						1							1							1				
588	46.070051	-88.974129	8	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	588	8	Sand	Pole	SAMPLED			3															3							1										1	
589	46.069331	-88.974143	7	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	589	9	Sand	Pole	SAMPLED			1					1										1																		
590	46.068611	-88.974156	6	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	590	0			DEEP																																						
591	46.067891	-88.974169	151	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	591	0			DEEP																																						
592	46.067171	-88.974183	0	Big Sand Lake	Vilas	18991230		592	0			DEEP																																						
593	46.066451	-88.974196	0	Big Sand Lake	Vilas	18991230		593	0			DEEP																																						
594	46.065731	-88.974209	0	Big Sand Lake	Vilas	18991230		594	0			DEEP																																						
595	46.065011	-88.974223	0	Big Sand Lake	Vilas	18991230		595	0			DEEP																																						
596	46.064291	-88.974236	0	Big Sand Lake	Vilas	18991230		596	0			DEEP																																						
597	46.063572	-88.974249	0	Big Sand Lake	Vilas	18991230		597	0			DEEP																																						
598	46.062852	-88.974263	0	Big Sand Lake	Vilas	18991230		598	0			DEEP																																						
599	46.062132	-88.974276	215	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	599	0			DEEP																																						
600	46.061412	-88.974289	212	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	600	0			DEEP																																						
601	46.060692	-88.974303	211	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	601	11	Sand	Pole	SAMPLED			3				3					1							1												1						1	
602	46.059972	-88.974316	210	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	602	9	Muck	Pole	SAMPLED			3																							1				3						1	
603	46.059252	-88.974329	209	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	603	2	Muck	Pole	SAMPLED			1								1		1																							

Point Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	ID	Lake Name	County	Date	Field Crew	Point Number	Depth (ft)	Sediment	Pole; Rope	Comments	Notes	Nuisance	Total Rake Fullness	Myriophyllum spicatum	Brasenia schreberi	Bidens beckii	Ceratophyllum demersum	Chara spp.	Elatine minima	Eleocharis acicularis	Eleocharis palustris	Elodea canadensis	Eriocaulon aquaticum	Isoetes spp.	Juncus pelocarpus	Myriophyllum sibiricum	Myriophyllum tenellum	Najas flexilis	Najas guadalupensis	Nuphar variegata	Nymphaea odorata	Potamogeton amplifolius	Potamogeton berchtoldii	Potamogeton foliosus	Potamogeton gramineus	Potamogeton illinoensis	Potamogeton praelongus	Potamogeton pusillus	Potamogeton richardsonii	Potamogeton robbinsii	Potamogeton strictifolius	Potamogeton zosteriformis	Ranunculus aquatilis	Schoenoplectus acutus	Schoenoplectus tabernaemontani	Utricularia intermedia	Utricularia vulgaris	Vallisneria americana	Large-leaf and white-stem pondweed	White-stem and clasping-leaf pondweed
604	46.070761	-88.973082	11	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	604	2	Sand	Pole	SAMPLED			1															1							1												
605	46.070041	-88.973095	12	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	605	5	Sand	Pole	SAMPLED			1																						1														
606	46.069321	-88.973108	13	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	606	9	Sand	Pole	SAMPLED			1					1										1	1																				
607	46.068602	-88.973122	14	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	607	15		Rope	SAMPLED			0																																				
608	46.067882	-88.973135	15	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	608	0			DEEP																																						
609	46.067162	-88.973148	0	Big Sand Lake	Vilas	18991230		609	0			DEEP																																						
610	46.066442	-88.973162	0	Big Sand Lake	Vilas	18991230		610	0			DEEP																																						
611	46.065722	-88.973175	0	Big Sand Lake	Vilas	18991230		611	0			DEEP																																						
612	46.065002	-88.973188	0	Big Sand Lake	Vilas	18991230		612	0			DEEP																																						
613	46.064282	-88.973202	0	Big Sand Lake	Vilas	18991230		613	0			DEEP																																						
614	46.063562	-88.973215	0	Big Sand Lake	Vilas	18991230		614	0			DEEP																																						
615	46.062842	-88.973228	0	Big Sand Lake	Vilas	18991230		615	0			DEEP																																						
616	46.062122	-88.973242	204	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	616	0			DEEP																																						
617	46.061403	-88.973255	205	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	617	17		Rope	SAMPLED			1																1																				
618	46.060683	-88.973268	206	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	618	10	Muck	Pole	SAMPLED			3																												3								
619	46.059963	-88.973282	207	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	619	9	Muck	Pole	SAMPLED			3																												3								
620	46.059243	-88.973295	208	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	620	2	Sand	Pole	SAMPLED			1																									1												
621	46.070752	-88.972047	20	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	621	4	Sand	Pole	SAMPLED			0																																				
622	46.070032	-88.972061	19	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	622	4	Rock	Pole	SAMPLED			1																									1												
623	46.069312	-88.972074	18	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	623	10	Sand	Pole	SAMPLED			1																1											1	1							
624	46.068592	-88.972087	17	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	624	13	Sand	Pole	SAMPLED			3																3																				
625	46.067872	-88.972101	16	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	625	0			DEEP																																						
626	46.067152	-88.972114	0	Big Sand Lake	Vilas	18991230		626	0			DEEP																																						
627	46.066433	-88.972127	0	Big Sand Lake	Vilas	18991230		627	0			DEEP																																						
628	46.065713	-88.972141	0	Big Sand Lake	Vilas	18991230		628	0			DEEP																																						
629	46.064993	-88.972154	0	Big Sand Lake	Vilas	18991230		629	0			DEEP																																						
630	46.064273	-88.972168	0	Big Sand Lake	Vilas	18991230		630	0			DEEP																																						
631	46.063553	-88.972181	0	Big Sand Lake	Vilas	18991230		631	0			DEEP																																						
632	46.062833	-88.972194	0	Big Sand Lake	Vilas	18991230		632	0			DEEP																																						
633	46.062113	-88.972208	203	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	633	0			DEEP																																						
634	46.061393	-88.972221	202	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	634	14	Sand	Pole	SAMPLED			2																2																				
635	46.060673	-88.972234	201	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	635	10	Muck	Pole	SAMPLED			3									1																1		3		1							1
636	46.059953	-88.972248	200	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	636	8	Sand	Pole	SAMPLED			3																3																				
637	46.059234	-88.972261	199	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	637	1	Rock	Pole	SAMPLED			0																																				
638	46.071463	-88.971	21	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	638	2	Sand	Pole	SAMPLED			0																																				
639	46.070743	-88.971013	22	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	639	3	Sand	Pole	SAMPLED			1														1									1												
640	46.070023	-88.971026	23	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	640	4	Sand	Pole	SAMPLED			1										1																			1				1		
641	46.069303	-88.97104	24	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	641	11	Sand	Pole	SAMPLED			3																3																				
642	46.068583	-88.971053	25	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	642	12	Sand	Pole	SAMPLED			3																3																				
643	46.067863	-88.971066	26	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	643	0			DEEP																																						
644	46.067143	-88.97108	0	Big Sand Lake	Vilas	18991230		644	0			DEEP																																						
645	46.066423	-88.971093	0	Big Sand Lake	Vilas	18991230		645	0			DEEP																																						
646	46.065703	-88.971107	0	Big Sand Lake	Vilas	18991230		646	0			DEEP																																						
647	46.064983	-88.97112	0	Big Sand Lake	Vilas	18991230		647	0			DEEP																																						
648	46.064264	-88.971133	0	Big Sand Lake	Vilas	18991230		648	0			DEEP																																						
649	46.063544	-88.971147	0	Big Sand Lake	Vilas	18991230		649	0			DEEP																																						
650	46.062824	-88.97116	0	Big Sand Lake	Vilas	18991230		650	0			DEEP																																						
651	46.062104	-88.971173	195	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	651	0			DEEP																																						
652	46.061384	-88.971187	196	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	652	11	Sand	Pole	SAMPLED			3				1					1							3																				
653	46.060664	-88.9712	197	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	653	9	Sand	Pole	SAMPLED			3				1					2									1									3								
654	46.059944	-88.971214	198	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	654	3	Sand	Pole	SAMPLED			1							1									1									1											
655	46.071453	-88.969965	32	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	655	3	Sand	Pole	SAMPLED			1															1									1											
656	46.070733	-88.969979	31	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	656	4	Sand	Pole	SAMPLED			1					1										1									1											
657	46.070013	-88.969992	30	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	657	10	Sand	Pole	SAMPLED			3	1			1												1									1		3		1						
658	46.069294	-88.970005	29	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	658	12	Sand	Pole	SAMPLED			3																3																				
659	46.068574	-88.970019	28	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	659	0			DEEP																																						
660	46.067854	-88.970032	27	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	660	0			DEEP																																						
661	46.067134	-88.970046	0	Big Sand Lake	Vilas	18991230		661	0			DEEP																																						
662	46.066414	-88.970059	0	Big Sand Lake	Vilas	18991230		662	0			DEEP																																						
663	46.065694	-88.970072	0	Big Sand Lake	Vilas	18991230		663	0			DEEP																																						
664	46.064974	-88.970086	0	Big Sand Lake	Vilas	18991230		664	0			DEEP																																						
665	46.064254	-88.970099	0	Big Sand Lake	Vilas	18991230		665	0			DEEP																																						
666	46.063534	-88.970113	0	Big Sand Lake	Vilas	18991230		666	0			DEEP																																						
667	46.062814	-88.970126	0	Big Sand Lake	Vilas	18991230		667	0			DEEP																																						
668	46.062095	-88.970139	194	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	668	0			DEEP																																						
669	46.061375	-88.970153	193	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	669	10	Sand	Pole	SAMPLED			3			1						1							3																				
670	46.060655	-88.970166	192	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	670	4	Sand	Pole	SAMPLED			1					1		1									1																		1		

Point Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	ID	Lake Name	County	Date	Field Crew	Point Number	Depth (ft)	Sediment	Pole; Rope	Comments	Notes	Nuisance	Total Rake Fullness	Myriophyllum spicatum	Brasenia schreberi	Bidens beckii	Ceratophyllum demersum	Chara spp.	Elatine minima	Eleocharis acicularis	Eleocharis palustris	Elodea canadensis	Eriocaulon aquaticum	Isoetes spp.	Juncus pelocarpus	Myriophyllum sibiricum	Myriophyllum tenellum	Najas flexilis	Najas guadalupensis	Nuphar variegata	Nymphaea odorata	Potamogeton amplifolius	Potamogeton berchtoldii	Potamogeton foliosus	Potamogeton gramineus	Potamogeton illinoensis	Potamogeton praelongus	Potamogeton pusillus	Potamogeton richardsonii	Potamogeton robbinsii	Potamogeton strictifolius	Potamogeton zosteriformis	Ranunculus aquatilis	Schoenoplectus acutus	Schoenoplectus tabernaemontani	Utricularia intermedia	Utricularia vulgaris	Vallisneria americana	Large-leaf and white-stem pondweed	White-stem and clasping-leaf pondweed
671	46.072164	-88.968918	33	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	671	3	Sand	Pole	SAMPLED			1															1						1														
672	46.071444	-88.968931	34	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	672	6	Sand	Pole	SAMPLED			2	2														1						1														
673	46.070724	-88.968944	35	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	673	9	Sand	Pole	SAMPLED			3																							1			3									
674	46.070004	-88.968958	36	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	674	0			DEEP																																						
675	46.069284	-88.968971	39	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	675	0			DEEP																																						
676	46.068564	-88.968985	40	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	676	0			DEEP																																						
677	46.067844	-88.968998	0	Big Sand Lake	Vilas	18991230		677	0			DEEP																																						
678	46.067125	-88.969011	0	Big Sand Lake	Vilas	18991230		678	0			DEEP																																						
679	46.066405	-88.969025	0	Big Sand Lake	Vilas	18991230		679	0			DEEP																																						
680	46.065685	-88.969038	0	Big Sand Lake	Vilas	18991230		680	0			DEEP																																						
681	46.064965	-88.969052	0	Big Sand Lake	Vilas	18991230		681	0			DEEP																																						
682	46.064245	-88.969065	0	Big Sand Lake	Vilas	18991230		682	0			DEEP																																						
683	46.063525	-88.969078	0	Big Sand Lake	Vilas	18991230		683	0			DEEP																																						
684	46.062805	-88.969092	189	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	684	0			DEEP																																						
685	46.062085	-88.969105	190	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	685	0			DEEP																																						
686	46.061365	-88.969119	191	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	686	8	Muck	Pole	SAMPLED			3	1		1												1													3		1						
687	46.072874	-88.96787	43	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	687	2	Rock	Pole	SAMPLED			1								1						1																				
688	46.072155	-88.967883	42	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	688	6	Muck	Pole	SAMPLED			3									1						1									1			1							1	
689	46.071435	-88.967897	41	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	689	8	Sand	Pole	SAMPLED			3																										3								
690	46.070715	-88.96791	38	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	690	11	Sand	Pole	SAMPLED			3															3													1							
691	46.069995	-88.967923	37	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	691	0			DEEP																																						
692	46.069275	-88.967937	0	Big Sand Lake	Vilas	18991230		692	0			DEEP																																						
693	46.068555	-88.96795	0	Big Sand Lake	Vilas	18991230		693	0			DEEP																																						
694	46.067835	-88.967964	0	Big Sand Lake	Vilas	18991230		694	0			DEEP																																						
695	46.067115	-88.967977	0	Big Sand Lake	Vilas	18991230		695	0			DEEP																																						
696	46.066395	-88.967991	0	Big Sand Lake	Vilas	18991230		696	0			DEEP																																						
697	46.065675	-88.968004	0	Big Sand Lake	Vilas	18991230		697	0			DEEP																																						
698	46.064955	-88.968017	0	Big Sand Lake	Vilas	18991230		698	0			DEEP																																						
699	46.064236	-88.968031	0	Big Sand Lake	Vilas	18991230		699	0			DEEP																																						
700	46.063516	-88.968044	0	Big Sand Lake	Vilas	18991230		700	0			DEEP																																						
701	46.062796	-88.968058	188	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	701	0			DEEP																																						
702	46.062076	-88.968071	187	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	702	13	Sand	Pole	SAMPLED			2				1					1							2												1								
703	46.061356	-88.968084	186	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	703	1	Rock	Pole	SAMPLED			0																																				
704	46.073585	-88.966822	44	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	704	2	Sand	Pole	SAMPLED			1		1						1							1									1												
705	46.072865	-88.966835	45	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	705	6	Sand	Pole	SAMPLED			3				1											3																				
706	46.072145	-88.966849	46	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	706	8	Muck	Pole	SAMPLED			3															1										1			3								
707	46.071425	-88.966862	47	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	707	8	Muck	Pole	SAMPLED			3	3			1											1													1								
708	46.070705	-88.966876	48	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	708	10	Sand	Pole	SAMPLED			3				1											3									1												
709	46.069985	-88.966889	49	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	709	0			DEEP																																						
710	46.069266	-88.966903	0	Big Sand Lake	Vilas	18991230		710	0			DEEP																																						
711	46.068546	-88.966916	0	Big Sand Lake	Vilas	18991230		711	0			DEEP																																						
712	46.067826	-88.966929	0	Big Sand Lake	Vilas	18991230		712	0			DEEP																																						
713	46.067106	-88.966943	0	Big Sand Lake	Vilas	18991230		713	0			DEEP																																						
714	46.066386	-88.966956	0	Big Sand Lake	Vilas	18991230		714	0			DEEP																																						
715	46.065666	-88.96697	0	Big Sand Lake	Vilas	18991230		715	0			DEEP																																						
716	46.064946	-88.966983	0	Big Sand Lake	Vilas	18991230		716	0			DEEP																																						
717	46.064226	-88.966997	0	Big Sand Lake	Vilas	18991230		717	0			DEEP																																						
718	46.063506	-88.96701	0	Big Sand Lake	Vilas	18991230		718	0			DEEP																																						
719	46.062786	-88.967023	184	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	719	0			DEEP																																						
720	46.062067	-88.967037	185	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	720	3	Sand	Pole	SAMPLED			1							1							1																				1	
721	46.074296	-88.965774	56	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	721	1	Sand	Pole	SAMPLED			1								1																										
722	46.073576	-88.965788	55	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	722	6	Muck	Pole	SAMPLED			3																												3								
723	46.072856	-88.965801	54	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	723	9	Muck	Pole	SAMPLED			3															2													3								
724	46.072136	-88.965815	53	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	724	8	Muck	Pole	SAMPLED			3																												3								
725	46.071416	-88.965828	52	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	725	9	Sand	Pole	SAMPLED			3	1																			1				1			3								1	
726	46.070696	-88.965841	51	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	726	9	Sand	Pole	SAMPLED			1															1																				
727	46.069976	-88.965855	50	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	727	0			DEEP																																						
728	46.069256	-88.965868	0	Big Sand Lake	Vilas	18991230		728	0			DEEP																																						
729	46.068536	-88.965882	0	Big Sand Lake	Vilas	18991230		729	0			DEEP																																						
730	46.067816	-88.965895	0	Big Sand Lake	Vilas	18991230		730	0			DEEP																																						
731	46.067096	-88.965909	0	Big Sand Lake	Vilas	18991230		731	0			DEEP																																						
732	46.066377	-88.965922	0	Big Sand Lake	Vilas	18991230		732	0			DEEP																																						
733	46.065657	-88.965936	0	Big Sand Lake	Vilas	18991230		733	0			DEEP																																						
734	46.064937	-88.965949	0	Big Sand Lake	Vilas	18991230		734	0			DEEP																																						
735	46.064217	-88.965962	0	Big Sand Lake	Vilas	18991230		735	0			DEEP																																						
736	46.063497	-88.965976	183	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	736	0			DEEP																																						
737	46.062777	-88.965989	182	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	737	0			DEEP																																						

Point Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	ID	Lake Name	County	Date	Field Crew	Point Number	Depth (ft)	Sediment	Pole; Rope	Comments	Notes	Nuisance	Total Rake Fullness	Myriophyllum spicatum	Brasenia schreberi	Bidens beckii	Ceratophyllum demersum	Chara spp.	Elatine minima	Eleocharis acicularis	Eleocharis palustris	Elodea canadensis	Eriocaulon aquaticum	Isoetes spp.	Juncus pelocarpus	Myriophyllum sibiricum	Myriophyllum tenellum	Najas flexilis	Najas guadalupensis	Nuphar variegata	Nymphaea odorata	Potamogeton amplifolius	Potamogeton berchtoldii	Potamogeton foliosus	Potamogeton gramineus	Potamogeton illinoensis	Potamogeton praelongus	Potamogeton pusillus	Potamogeton richardsonii	Potamogeton robbinsii	Potamogeton strictifolius	Potamogeton zosteriformis	Ranunculus aquatilis	Schoenoplectus acutus	Schoenoplectus tabernaemontani	Utricularia intermedia	Utricularia vulgaris	Vallisneria americana	Large-leaf and white-stem pondweed	White-stem and clasping-leaf pondweed
738	46.074286	-88.96474	57	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	738	6	Muck	Pole	SAMPLED			3	1			1																													1	
739	46.073566	-88.964753	58	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	739	9	Muck	Pole	SAMPLED			3				1																						3		1						
740	46.072846	-88.964767	59	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	740	8	Muck	Pole	SAMPLED			3	3																										1							
741	46.072126	-88.96478	60	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	741	12	Muck	Pole	SAMPLED			3				1																				1								1	
742	46.071407	-88.964794	61	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	742	9	Muck	Pole	SAMPLED			3				1																				1		2						1	
743	46.070687	-88.964807	62	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	743	10	Sand	Pole	SAMPLED			1																1																		
744	46.069967	-88.964821	63	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	744	0			DEEP																																						
745	46.069247	-88.964834	0	Big Sand Lake	Vilas	18991230		745	0			DEEP																																					
746	46.068527	-88.964847	0	Big Sand Lake	Vilas	18991230		746	0			DEEP																																					
747	46.067807	-88.964861	0	Big Sand Lake	Vilas	18991230		747	0			DEEP																																					
748	46.067087	-88.964874	0	Big Sand Lake	Vilas	18991230		748	0			DEEP																																					
749	46.066367	-88.964888	0	Big Sand Lake	Vilas	18991230		749	0			DEEP																																					
750	46.065647	-88.964901	0	Big Sand Lake	Vilas	18991230		750	0			DEEP																																					
751	46.064927	-88.964915	0	Big Sand Lake	Vilas	18991230		751	0			DEEP																																					
752	46.064208	-88.964928	179	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	752	0			DEEP																																					
753	46.063488	-88.964942	180	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	753	0			DEEP																																					
754	46.062768	-88.964955	181	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	754	10	Sand	Pole	SAMPLED			1																1																			
755	46.074997	-88.963692	71	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	755	2	Sand	Pole	SAMPLED			1	1															1							1								1			
756	46.074277	-88.963705	70	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	756	6	Muck	Pole	SAMPLED			3																1												3						
757	46.073557	-88.963719	69	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	757	8	Muck	Pole	SAMPLED			3																1												3						
758	46.072837	-88.963732	68	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	758	7	Sand	Pole	SAMPLED			1	1															1	1																		
759	46.072117	-88.963746	67	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	759	8	Sand	Pole	SAMPLED			3	1															3								1										
760	46.071397	-88.963759	66	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	760	10	Sand	Pole	SAMPLED			3																								1			3		1					1	
761	46.070677	-88.963773	65	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	761	10	Sand	Pole	SAMPLED			0																																		
762	46.069957	-88.963786	64	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	762	0			DEEP																																					
763	46.069237	-88.9638	0	Big Sand Lake	Vilas	18991230		763	0			DEEP																																					
764	46.068518	-88.963813	0	Big Sand Lake	Vilas	18991230		764	0			DEEP																																					
765	46.067798	-88.963827	0	Big Sand Lake	Vilas	18991230		765	0			DEEP																																					
766	46.067078	-88.96384	0	Big Sand Lake	Vilas	18991230		766	0			DEEP																																					
767	46.066358	-88.963854	0	Big Sand Lake	Vilas	18991230		767	0			DEEP																																					
768	46.065638	-88.963867	0	Big Sand Lake	Vilas	18991230		768	0			DEEP																																					
769	46.064918	-88.963881	0	Big Sand Lake	Vilas	18991230		769	0			DEEP																																					
770	46.064198	-88.963894	178	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	770	0			DEEP																																					
771	46.063478	-88.963908	177	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	771	14	Sand	Pole	SAMPLED			2																2																			
772	46.062758	-88.963921	176	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	772	9	Sand	Pole	SAMPLED			2																2							1		1									
773	46.074987	-88.962658	73	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	773	0			NONNAVIGABLE (PLANTS)																																						
774	46.074267	-88.962671	72	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	774	3	Sand	Pole	SAMPLED			1					1																														
775	46.073547	-88.962685	74	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	775	9	Muck	Pole	SAMPLED			3																													3						
776	46.072828	-88.962698	75	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	776	9	Muck	Pole	SAMPLED			3				1																								3		1					
777	46.072108	-88.962712	76	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	777	8	Sand	Pole	SAMPLED			1					1										1	1																		
778	46.071388	-88.962725	77	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	778	9	Sand	Pole	SAMPLED			2																1												2						
779	46.070668	-88.962738	78	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	779	10	Sand	Pole	SAMPLED			0																																		
780	46.069948	-88.962752	79	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	780	0			DEEP																																					
781	46.069228	-88.962765	148	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	781	0			DEEP																																					
782	46.068508	-88.962779	0	Big Sand Lake	Vilas	18991230		782	0			DEEP																																					
783	46.067788	-88.962792	0	Big Sand Lake	Vilas	18991230		783	0			DEEP																																					
784	46.067068	-88.962806	0	Big Sand Lake	Vilas	18991230		784	0			DEEP																																					
785	46.066348	-88.962819	0	Big Sand Lake	Vilas	18991230		785	0			DEEP																																					
786	46.065629	-88.962833	0	Big Sand Lake	Vilas	18991230		786	0			DEEP																																					
787	46.064909	-88.962846	0	Big Sand Lake	Vilas	18991230		787	0			DEEP																																					
788	46.064189	-88.96286	172	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	788	0			DEEP																																					
789	46.063469	-88.962873	173	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	789	11	Sand	Pole	SAMPLED			3																3																			
790	46.062749	-88.962887	174	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	790	7	Sand	Pole	SAMPLED			0																																		
791	46.062029	-88.9629	175	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	791	1	Sand	Pole	SAMPLED			1											1																							
792	46.074978	-88.961623	87	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	792	3	Sand	Pole	SAMPLED			3								1																1			3						1	
793	46.074258	-88.961637	86	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	793	5	Muck	Pole	SAMPLED			3																												3						
794	46.073538	-88.96165	85	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	794	4	Sand	Pole	SAMPLED			1					1																		1				1						1	
795	46.072818	-88.961664	84	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	795	6	Sand	Pole	SAMPLED			1				1																														
796	46.072098	-88.961677	83	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	796	7	Sand	Pole	SAMPLED			0																																		
797	46.071378	-88.961691	82	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	797	8	Sand	Pole	SAMPLED			0																																		
798	46.070658	-88.961704	81	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	798	9	Sand	Pole	SAMPLED			0																																		
799	46.069939	-88.961718	80	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	799	12	Sand	Pole	SAMPLED			0																																		
800	46.069219	-88.961731	130	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	800	0			DEEP																																					
801	46.068499	-88.961745	0	Big Sand Lake	Vilas	18991230		801	0			DEEP																																					
802	46.067779	-88.961758	0	Big Sand Lake	Vilas	18991230		802	0			DEEP																																					
803	46.067059	-88.961772	0	Big Sand Lake	Vilas	18991230		803	0			DEEP																																					
804	46.066339	-88.961785	0	Big Sand Lake	Vilas	18991230		804	0			DEEP																																					

Point Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	ID	Lake Name	County	Date	Field Crew	Point Number	Depth (ft)	Sediment	Pole; Rope	Comments	Notes	Nuisance	Total Rake Fullness	Myriophyllum spicatum	Brasenia schreberi	Bidens beckii	Ceratophyllum demersum	Chara spp.	Elatine minima	Eleocharis acicularis	Eleocharis palustris	Elodea canadensis	Eriocaulon aquaticum	Isoetes spp.	Juncus pelocarpus	Myriophyllum sibiricum	Myriophyllum tenellum	Najas flexilis	Najas guadalupensis	Nuphar variegata	Nymphaea odorata	Potamogeton amplifolius	Potamogeton berchtoldii	Potamogeton foliosus	Potamogeton gramineus	Potamogeton illinoensis	Potamogeton praelongus	Potamogeton pusillus	Potamogeton richardsonii	Potamogeton robbinsii	Potamogeton strictifolius	Potamogeton zosteriformis	Ranunculus aquatilis	Schoenoplectus acutus	Schoenoplectus tabernaemontani	Utricularia intermedia	Utricularia vulgaris	Vallisneria americana	Large-leaf and white-stem pondweed	White-stem and clasping-leaf pondweed
805	46.065619	-88.961799	0	Big Sand Lake	Vilas	18991230		805	0			DEEP																																							
806	46.064899	-88.961812	0	Big Sand Lake	Vilas	18991230		806	0			DEEP																																							
807	46.064179	-88.961826	171	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	807	0			DEEP																																							
808	46.063459	-88.961839	170	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	808	10	Sand	Pole	SAMPLED			3																3																						
809	46.06274	-88.961853	169	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	809	8	Muck	Pole	SAMPLED			3	3		1	1					1																			1									
810	46.06202	-88.961866	168	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	810	1	Sand	Pole	SAMPLED			1							1																1												
811	46.074968	-88.960589	88	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	811	0			NONNAVIGABLE (PLANTS)																																								
812	46.074249	-88.960602	89	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	812	2	Sand	Pole	SAMPLED			1																																	1			
813	46.073529	-88.960616	90	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	813	2	Rock	Pole	SAMPLED			0																																			
814	46.072809	-88.960629	91	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	814	4	Sand	Pole	SAMPLED			0																																			
815	46.072089	-88.960643	92	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	815	6	Sand	Pole	SAMPLED			1				2												1							1												
816	46.071369	-88.960656	93	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	816	7	Sand	Pole	SAMPLED			0																																			
817	46.070649	-88.96067	94	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	817	9	Sand	Pole	SAMPLED			0																																			
818	46.069929	-88.960683	95	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	818	10	Sand	Pole	SAMPLED			0																																			
819	46.069209	-88.960697	129	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	819	0			DEEP																																						
820	46.068489	-88.96071	149	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	820	0			DEEP																																						
821	46.067769	-88.960724	0	Big Sand Lake	Vilas	18991230		821	0			DEEP																																					
822	46.06705	-88.960737	0	Big Sand Lake	Vilas	18991230		822	0			DEEP																																					
823	46.06633	-88.960751	0	Big Sand Lake	Vilas	18991230		823	0			DEEP																																					
824	46.06561	-88.960764	0	Big Sand Lake	Vilas	18991230		824	0			DEEP																																					
825	46.06489	-88.960778	0	Big Sand Lake	Vilas	18991230		825	0			DEEP																																					
826	46.06417	-88.960791	165	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	826	0			DEEP																																					
827	46.06345	-88.960805	166	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	827	9	Sand	Pole	SAMPLED			1																1																						
828	46.06273	-88.960818	167	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	828	7	Sand	Pole	SAMPLED			1														1			1						1												
829	46.074239	-88.959568	102	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	829	0			NONNAVIGABLE (PLANTS)																																								
830	46.073519	-88.959581	101	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	830	2	Rock	Pole	SAMPLED			1													1		1		1						1									1			
831	46.072799	-88.959595	100	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	831	3	Rock	Pole	SAMPLED			1																						1												
832	46.072079	-88.959609	99	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	832	5	Rock	Pole	SAMPLED			1					1										1							1											1	
833	46.07136	-88.959622	98	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	833	6	Sand	Pole	SAMPLED			1					1																1												
834	46.07064	-88.959636	97	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	834	8	Sand	Pole	SAMPLED			0																																			
835	46.06992	-88.959649	96	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	835	10	Sand	Pole	SAMPLED			1																1																			
836	46.0692	-88.959663	128	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	836	15	Sand	Pole	SAMPLED			0																																			
837	46.06848	-88.959676	132	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	837	0			DEEP																																						
838	46.06776	-88.95969	0	Big Sand Lake	Vilas	18991230		838	0			DEEP																																					
839	46.06704	-88.959703	0	Big Sand Lake	Vilas	18991230		839	0			DEEP																																					
840	46.06632	-88.959717	0	Big Sand Lake	Vilas	18991230		840	0			DEEP																																					
841	46.0656	-88.95973	0	Big Sand Lake	Vilas	18991230		841	0			DEEP																																					
842	46.06488	-88.959744	0	Big Sand Lake	Vilas	18991230		842	0			DEEP																																					
843	46.064161	-88.959757	164	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	843	0			DEEP																																					
844	46.063441	-88.959771	163	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	844	9	Sand	Pole	SAMPLED			0																																			
845	46.062721	-88.959784	162	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	845	3	Sand	Pole	SAMPLED			1																								1												
846	46.07351	-88.958547	103	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	846	2	Sand	Pole	SAMPLED			1																																	1			
847	46.07279	-88.958561	104	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	847	3	Rock	Pole	SAMPLED			0																																			
848	46.07207	-88.958574	105	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	848	5	Sand	Pole	SAMPLED			1					1		1																												
849	46.07135	-88.958588	106	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	849	6	Sand	Pole	SAMPLED			1																1																			
850	46.07063	-88.958601	107	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	850	7	Sand	Pole	SAMPLED			1					1										1																			
851	46.06991	-88.958615	108	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	851	9	Sand	Pole	SAMPLED			1																																			1	
852	46.06919	-88.958628	127	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	852	11	Sand	Pole	SAMPLED			0																																			
853	46.068471	-88.958642	131	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	853	0			DEEP																																						
854	46.067751	-88.958655	0	Big Sand Lake	Vilas	18991230		854	0			DEEP																																					
855	46.067031	-88.958669	0	Big Sand Lake	Vilas	18991230		855	0			DEEP																																					
856	46.066311	-88.958682	0	Big Sand Lake	Vilas	18991230		856	0			DEEP																																					
857	46.065591	-88.958696	0	Big Sand Lake	Vilas	18991230		857	0			DEEP																																					
858	46.064871	-88.95871	158	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	858	0			DEEP																																						
859	46.064151	-88.958723	159	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	859	0			DEEP																																						
860	46.063431	-88.958737	160	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	860	5	Rock	Pole	SAMPLED			0																																			
861	46.062711	-88.95875	161	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	861	1	Sand	Pole	SAMPLED			0																																			
862	46.0735	-88.957513	115	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	862	0			NONNAVIGABLE (PLANTS)																																								
863	46.072781	-88.957526	114	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	863	0			NONNAVIGABLE (PLANTS)																																								
864	46.072061	-88.95754	112	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	864	4	Sand	Pole	SAMPLED			1																1																			
865	46.071341	-88.957553	111	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	865	5	Sand	Pole	SAMPLED			1							1								1	1						1							1					
866	46.070621	-88.957567	110	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	866	6	Sand	Pole	SAMPLED			1															1																		1		
867	46.069901	-88.957581	109	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	867	8	Sand	Pole	SAMPLED			0																																			
868	46.069181	-88.957594	126	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	868	10	Sand	Pole	SAMPLED			0																																			
869	46.068461	-88.957608	133	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	869	0			DEEP																																						
870	46.067741	-88.957621	141	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	870	0			DEEP																																						
871	46.067021	-88.957635	0	Big Sand Lake	Vilas	18991230		871	0			DEEP																																					

Point Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	ID	Lake Name	County	Date	Field Crew	Point Number	Depth (ft)	Sediment	Pole; Rope	Comments	Notes	Nuisance	Total Rake Fullness	Myriophyllum spicatum	Brasenia schreberi	Bidens beckii	Ceratophyllum demersum	Chara spp.	Elatine minima	Eleocharis acicularis	Eleocharis palustris	Elodea canadensis	Eriocaulon aquaticum	Isoetes spp.	Juncus pelocarpus	Myriophyllum sibiricum	Myriophyllum tenellum	Najas flexilis	Najas guadalupensis	Nuphar variegata	Nymphaea odorata	Potamogeton amplifolius	Potamogeton berchtoldii	Potamogeton foliosus	Potamogeton gramineus	Potamogeton illinoensis	Potamogeton praelongus	Potamogeton pusillus	Potamogeton richardsonii	Potamogeton robbinsii	Potamogeton strictifolius	Potamogeton zosteriformis	Ranunculus aquatilis	Schoenoplectus acutus	Schoenoplectus tabernaemontani	Utricularia intermedia	Utricularia vulgaris	Vallisneria americana	Large-leaf and white-stem pondweed	White-stem and clasping-leaf pondweed
872	46.066301	-88.957648	0	Big Sand Lake	Vilas	18991230		872	0			DEEP																																							
873	46.065582	-88.957662	157	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	873	0			DEEP																																							
874	46.064862	-88.957675	156	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	874	0			DEEP																																							
875	46.064142	-88.957689	155	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	875	7	Rock	Pole	SAMPLED			1				1																																
876	46.072771	-88.956492	113	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	876	1	Sand	Pole	SAMPLED			1							1																												
877	46.072051	-88.956506	116	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	877	4	Sand	Pole	SAMPLED			1																1						1												
878	46.071331	-88.956519	117	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	878	5	Sand	Pole	SAMPLED			1							1															1												
879	46.070611	-88.956533	118	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	879	6	Sand	Pole	SAMPLED			1						1										1						1												
880	46.069891	-88.956546	119	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	880	7	Sand	Pole	SAMPLED			1																1	1						1												
881	46.069172	-88.95656	125	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	881	9	Sand	Pole	SAMPLED			1						1																2												
882	46.068452	-88.956573	134	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	882	17		Rope	SAMPLED			1																	1																1			
883	46.067732	-88.956587	140	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	883	0			DEEP																																						
884	46.067012	-88.9566	142	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	884	0			DEEP																																						
885	46.066292	-88.956614	153	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	885	0			DEEP																																						
886	46.065572	-88.956628	152	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	886	0			DEEP																																						
887	46.064852	-88.956641	154	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	887	7	Sand	Pole	SAMPLED			0																																				
888	46.071322	-88.955485	122	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	888	1	Sand	Pole	SAMPLED			0																																				
889	46.070602	-88.955498	121	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	889	3	Sand	Rope	SAMPLED			1							1																												
890	46.069882	-88.955512	120	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	890	6	Sand	Pole	SAMPLED			1																1																		1		
891	46.069162	-88.955525	124	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	891	8	Sand	Pole	SAMPLED			1						1										1						1											1		
892	46.068442	-88.955539	135	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	892	10	Sand	Pole	SAMPLED			3																3																				
893	46.067722	-88.955553	139	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	893	18		Rope	SAMPLED			0																																				
894	46.067002	-88.955566	143	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	894	0			DEEP																																						
895	46.066283	-88.95558	146	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	895	0			DEEP																																						
896	46.065563	-88.955593	147	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	896	10	Rock	Pole	SAMPLED			0																																				
897	46.069873	-88.954478	123	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	897	0			SHALLOW																																						
898	46.069153	-88.954491	136	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	898	0			SHALLOW																																						
899	46.068433	-88.954505	137	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	899	2	Sand	Pole	SAMPLED			0																																				
900	46.067713	-88.954518	138	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	900	4	Sand	Pole	SAMPLED			2							1																2											1		
901	46.066993	-88.954532	144	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	901	7	Sand	Pole	SAMPLED			1																1						1	1											
902	46.066273	-88.954546	145	Big Sand Lake	Vilas	8/3/2015	EEH & NLS	902	3	Rock	Pole	SAMPLED			0																																				

Point Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	ID	Lake Name	County	Date	Field Crew	Point Number	Depth (ft)	Sediment	Polar, Rope	Comments	Notes	Nuisance	Tidal Rake Fullness	Myriophyllum spicatum	Brasenia schreberi	Bidens beckii	Ceratophyllum demersum	Chara spp.	Elatine minima	Eleocharis acicularis	Eleocharis palustris	Elodea canadensis	Eriocaulon aquaticum	Heteranthera dubia	Isoetes spp.	Juncus pelocarpus	Lobelia dortmanna	Myriophyllum sibiricum	Myriophyllum tenellum	Najas flexilis	Najas guadalupensis	Nuphar variegata	Nymphaea odorata	Potamogeton amplifolius	Potamogeton berchtoldii	Potamogeton epihydrus	Potamogeton foliosus	Potamogeton gramineus	Potamogeton illinoensis	Potamogeton praelongus	Potamogeton pusillus	Potamogeton richardsonii	Potamogeton robbinsii	Potamogeton strictifolius	Potamogeton zosterformis	Ranunculus aquatilis	Sagittaria sp. (rosette)	Schoenoplectus acutus	Schoenoplectus pungens	Sparganium angustifolium	Utricularia intermedia	Utricularia vulgaris	Vallisneria americana	Pondweed hybrid 1	Pondweed hybrid 2	Aquatic moss	Filamentous algae
1	46.045146	-89.007679	108	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	1	0			NONNAVIGABLE (PLANTS)																																														
2	46.058815	-89.006399	203	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	2	0			NONNAVIGABLE (PLANTS)																																														
3	46.058096	-89.006412	226	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	3	0			NONNAVIGABLE (PLANTS)																																														
4	46.047297	-89.006606	95	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	4	0			NONNAVIGABLE (PLANTS)																																														
5	46.046577	-89.006619	96	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	5	0			NONNAVIGABLE (PLANTS)																																														
6	46.045857	-89.006632	105	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	6	0			NONNAVIGABLE (PLANTS)																																														
7	46.060246	-89.005340	181	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	7	3	Muck	Pole	SAMPLED			1																														1											
8	46.059526	-89.005352	202	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	8	4	Muck	Pole	SAMPLED			3																														3									1			
9	46.058806	-89.005365	204	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	9	4	Muck	Pole	SAMPLED			3									1																				3											
10	46.058087	-89.005378	225	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	10	3	Muck	Pole	SAMPLED			3																				3									1											
11	46.057367	-89.005391	227	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	11	2	Muck	Pole	SAMPLED			2									1																				1											
12	46.056647	-89.005404	158	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	12	0			NONNAVIGABLE (PLANTS)																																														
13	46.050167	-89.005520	57	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	13	0			NONNAVIGABLE (PLANTS)																																														
14	46.049448	-89.005533	77	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	14	1	Muck	Pole	SAMPLED			2					1				1											1		1								1										1	
15	46.048728	-89.005546	78	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	15	3	Muck	Pole	SAMPLED			3				1					3							1		1			1							1	1							1				
16	46.048008	-89.005559	92	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	16	3	Muck	Pole	SAMPLED			2				1					2									1		1								1											
17	46.047288	-89.005572	94	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	17	0			NONNAVIGABLE (PLANTS)																																														
18	46.046568	-89.005585	97	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	18	0			NONNAVIGABLE (PLANTS)																																														
19	46.045848	-89.005598	106	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	19	0			NONNAVIGABLE (PLANTS)																																														
20	46.061677	-89.004280	161	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	20	3	Sand	Pole	SAMPLED			1																				1									1				1							
21	46.060957	-89.004292	180	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	21	3	Muck	Pole	SAMPLED			3									1																				3									1		
22	46.060237	-89.004305	182	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	22	5	Muck	Pole	SAMPLED			3																													1	3								1		
23	46.059517	-89.004318	201	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	23	4	Muck	Pole	SAMPLED			3	1																		3																			
24	46.058797	-89.004331	205	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	24	4	Muck	Pole	SAMPLED			3																														3										
25	46.058078	-89.004344	224	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	25	4	Muck	Pole	SAMPLED			3																														3										
26	46.057358	-89.004357	228	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	26	4	Muck	Pole	SAMPLED			3																														3										
27	46.056638	-89.004370	159	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	27	4	Sand	Pole	SAMPLED			1																				1									1										
28	46.055918	-89.004383	157	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	28	2	Sand	Pole	SAMPLED			1					1																1								1										
29	46.051598	-89.004461	51	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	29	2	Muck	Pole	SAMPLED			3	V																		3																			
30	46.050878	-89.004474	56	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	30	3	Muck	Pole	SAMPLED			2																				1												2										
31	46.050158	-89.004487	58	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	31	2	Muck	Pole	SAMPLED			2									1											2												1										
32	46.049439	-89.004499	76	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	32	2	Muck	Pole	SAMPLED			2																				1												2										
33	46.048719	-89.004512	79	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	33	3	Muck	Pole	SAMPLED			2					1				1											1												2										
34	46.047999	-89.004525	91	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	34	2	Muck	Pole	SAMPLED			1									1												1												1										
35	46.047279	-89.004538	93	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	35	3	Muck	Pole	SAMPLED			2									1											1	1												2										
36	46.046559	-89.004551	104	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	36	2	Muck	Pole	SAMPLED			1																				1												1								1		
37	46.045839	-89.004564	107	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	37	0			NONNAVIGABLE (PLANTS)																																														
38	46.062388	-89.003232	160	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	38	4	Muck	Pole	SAMPLED			3									1																				3									1		
39	46.061668	-89.003245	162	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	39	5	Muck	Pole	SAMPLED			3									1																				3										
40	46.060948	-89.003258	179	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	40	4	Muck	Pole	SAMPLED			2																														2									1		
41	46.060228	-89.003271	183	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	41	5	Muck	Pole	SAMPLED			3																														3										
42	46.059508	-89.003284	200	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	42	5	Muck	Pole	SAMPLED			3																														3										
43	46.058788	-89.003297	206	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	43	5	Muck	Pole	SAMPLED			3																														3									1	
44	46.058068	-89.003310	223	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	44	6	Muck	Pole	SAMPLED			3					1														1												3										
45	46.057349	-89.003323	177	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	45	7	Muck	Pole	SAMPLED			3																												2		3										
46	46.056629	-89.003336	160	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	46	5	Muck	Pole	SAMPLED			3																														3										
47	46.055909	-89.003349	156	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	47	5	Sand	Pole	SAMPLED			2																														2										
48	46.055189	-89.003362	143	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	48	3	Sand	Pole	SAMPLED			1					1																																				
49	46.054469	-89.003375	1	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	49	2	Sand	Pole	SAMPLED													1											1																						
50	46.051589	-89.003427	50	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	50	3	Muck	Pole	SAMPLED			3																				3																						
51	46.050869	-89.003440	55	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	51	3	Muck	Pole	SAMPLED			3																				3																						
52	46.050149	-89.003453	59	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	52	3	Muck	Pole	SAMPLED			2									1											1								1				1								2		
53	46.049430	-89.003466	75	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	53	3	Muck	Pole	SAMPLED			2									1											1								1				2								1		
54	46.048710	-89.003479	80	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	54	3	Muck	Pole	SAMPLED			2																														2									1	
55	46.047990	-89.003491	90	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	55	3	Muck	Pole	SAMPLED			3									1											3												1										
56	46.047270	-89.003504	98	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	56	2	Muck	Pole	SAMPLED			3																				3								1				1										
57	46.046550	-89.003517	103	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	57	3	Muck	Pole	SAMPLED			2									1																				2										
58	46.045830	-89.003530	109	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	58	3	Muck	Pole	SAMPLED			1	V				1																																				
59	46.063099	-89.002185	144	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	59	4	Muck	Pole	SAMPLED			2																														2										
60	46.062379	-89.002198	159	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	60	4	Muck	Pole	SAMPLED			3																												1		3										
61	46.061659	-89.002211	163	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	61	5	Muck	Pole	SAMPLED			3																														3										
62	46.060939	-89.002224	178	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	62	5	Muck	Pole	SAMPLED			3																														3		1										
63	46.060219	-89.002237	184	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	63	5	Muck	Pole	SAMPLED			3																														3										
64	46.059499	-89.002250	199	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	64	5	Muck	Pole	SAMPLED			2					1																								1											
65	46.058779	-89.002263	207	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	65	5	Muck	Pole	SAMPLED			3																													1	3										
66	46.058059	-89.002276	222	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	66	7	Muck	Pole	SAMPLED			3									1																				3										
67	46.057340	-89.002289	176	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	67	5	Muck	Pole	SAMPLED			3																										1				3								1		
68	46.056620	-89.002302	161	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	68	6	Muck	Pole	SAMPLED			3																														3									1	
69	46.055900	-89.002315	155	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	69	5	Muck	Pole	SAMPLED			3																												1		3										
70	46.055180	-89.002328	144	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	70	6	Muck	Pole	SAMPLED			2																														2										
71	46.054460	-89.002341	2	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	71	3	Sand	Pole	SAMPLED			1																											1				1										
72	46.053740	-89.002354	17	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	72	2	Sand	Pole	SAMPLED			1		1			1					1				1						1																						
73	46.053020	-89.002367	18	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	73	2	Muck	Pole	SAMPLED			1																						1								1										

Point Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	ID	Lake Name	County	Date	Field Crew	Point Number	Depth (ft)	Sediment	Polar, Rope	Comments	Notes	Nuisance	Total Rake Fullness	Myriophyllum spicatum	Brasenia schreberi	Bidens beckii	Ceratophyllum demersum	Chara spp.	Elatine minima	Eleocharis acicularis	Eleocharis palustris	Elodea canadensis	Eriocaulon aquaticum	Heteranthera dubia	Isoetes spp.	Juncus pelocarpus	Lobelia dortmanna	Myriophyllum sibiricum	Myriophyllum tenellum	Najas flexilis	Najas guadalupensis	Nuphar variegata	Nymphaea odorata	Potamogeton amplifolius	Potamogeton berchtoldii	Potamogeton epihydrus	Potamogeton foliosus	Potamogeton gramineus	Potamogeton illinoensis	Potamogeton praelongus	Potamogeton pusillus	Potamogeton richardsonii	Potamogeton robbinsii	Potamogeton strictifolius	Potamogeton zosteriformis	Ranunculus aquatilis	Sagittaria sp. (rosette)	Schoenoplectus acutus	Schoenoplectus pungens	Sparganium angustifolium	Utricularia intermedia	Utricularia vulgaris	Vallisneria americana	Pondweed hybrid 1	Pondweed hybrid 2	Aquatic moss	Filamentous algae
74	46.052300	-89.002380	52	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	74	3	Muck	Pole	SAMPLED			1																	1																									
75	46.051580	-89.002393	49	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	75	4	Muck	Pole	SAMPLED			3								1								3												1													
76	46.050860	-89.002406	54	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	76	3	Muck	Pole	SAMPLED			3																3																									
77	46.050140	-89.002419	60	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	77	5	Muck	Pole	SAMPLED			3				1				1								2												1													
78	46.049421	-89.002432	74	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	78	3	Muck	Pole	SAMPLED			3																3																									
79	46.048701	-89.002445	81	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	79	3	Muck	Pole	SAMPLED			2								1								1											1			1											
80	46.047981	-89.002458	89	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	80	3	Muck	Pole	SAMPLED			2								2								1											1			1											
81	46.047261	-89.002471	99	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	81	2	Muck	Pole	SAMPLED			2								1								1														2										
82	46.046541	-89.002483	102	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	82	3	Muck	Pole	SAMPLED			2								1		2				1						1								1										
83	46.045821	-89.002496	110	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	83	0			NONNAVIGABLE (PLANTS)																																													
84	46.064530	-89.001125	130	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	84	3	Sand	Pole	SAMPLED			2								1																											1				1			
85	46.063810	-89.001138	143	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	85	5	Muck	Pole	SAMPLED			3								1																						3										
86	46.063090	-89.001151	145	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	86	5	Muck	Pole	SAMPLED			3	V																												3										
87	46.062370	-89.001164	158	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	87	5	Muck	Pole	SAMPLED			3																													3										
88	46.061650	-89.001177	164	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	88	5	Muck	Pole	SAMPLED			3								1																						3								1		
89	46.060930	-89.001190	177	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	89	5	Muck	Pole	SAMPLED			3																													3										
90	46.060210	-89.001203	185	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	90	5	Muck	Pole	SAMPLED			3																													3										
91	46.059490	-89.001216	198	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	91	6	Muck	Pole	SAMPLED			2																													2										
92	46.058770	-89.001229	208	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	92	7	Muck	Pole	SAMPLED			3	V							1							1												1				1									
93	46.058050	-89.001242	221	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	93	8	Muck	Pole	SAMPLED			3	V			1											1												1			1	1									
94	46.057331	-89.001255	175	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	94	7	Muck	Pole	SAMPLED			3																													3										
95	46.056611	-89.001268	162	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	95	5	Muck	Pole	SAMPLED			3																							1						3										
96	46.055891	-89.001281	154	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	96	5	Muck	Pole	SAMPLED			3								1																						3										
97	46.055171	-89.001294	145	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	97	5	Muck	Pole	SAMPLED			3																1														1	3									
98	46.054451	-89.001307	3	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	98	4	Muck	Pole	SAMPLED			3								1																						3								1		
99	46.053731	-89.001320	16	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	99	5	Sand	Pole	SAMPLED			0																																							
100	46.053011	-89.001333	19	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	100	3	Sand	Pole	SAMPLED			1																														1										
101	46.052291	-89.001346	53	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	101	0			NONNAVIGABLE (PLANTS)																																													
102	46.051571	-89.001359	48	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	102	2	Muck	Pole	SAMPLED			2								1								1														2										
103	46.050851	-89.001372	47	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	103	3	Muck	Pole	SAMPLED			2																1												1			2										
104	46.050131	-89.001385	61	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	104	5	Muck	Pole	SAMPLED			2								1								1												1			2										
105	46.049411	-89.001398	73	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	105	3	Muck	Pole	SAMPLED			2								1								2												1			1										
106	46.048692	-89.001411	82	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	106	3	Muck	Pole	SAMPLED			3								1								3												1			1										
107	46.047972	-89.001424	88	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	107	3	Muck	Pole	SAMPLED			3								1								3																									
108	46.047252	-89.001437	100	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	108	3	Muck	Pole	SAMPLED			3								1								3														1										
109	46.046532	-89.001450	101	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	109	3	Muck	Pole	SAMPLED			3																3														1										
110	46.064521	-89.000091	131	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	110	3	Sand	Pole	SAMPLED			1				1							1															1	1													
111	46.063801	-89.000104	142	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	111	5	Muck	Pole	SAMPLED			3																													3										
112	46.063081	-89.000117	146	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	112	5	Muck	Pole	SAMPLED			3								1																						3										
113	46.062361	-89.000130	157	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	113	5	Muck	Pole	SAMPLED			3																													3										
114	46.061641	-89.000143	165	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	114	5	Muck	Pole	SAMPLED			3																													3										
115	46.060921	-89.000156	176	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	115	5	Muck	Pole	SAMPLED			3																													3										
116	46.060201	-89.000169	186	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	116	6	Muck	Pole	SAMPLED			3																												1			2									1	
117	46.059481	-89.000182	197	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	117	13	Muck	Pole	SAMPLED			3								1																				1	1		2									
118	46.058761	-89.000195	209	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	118	13	Muck	Pole	SAMPLED			3	V			1																									1		2									
119	46.058041	-89.000208	220	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	119	7	Muck	Pole	SAMPLED			3	V			2																								1	1		1									
120	46.057321	-89.000221	174	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	120	5	Muck	Pole	SAMPLED			3								1																						3										
121	46.056602	-89.000234	163	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	121	5	Muck	Pole	SAMPLED			3																													3										
122	46.055882	-89.000247	153	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	122	5	Muck	Pole	SAMPLED			3																													3										
123	46.055162	-89.000260	146	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	123	5	Muck	Pole	SAMPLED			2								1																						2										
124	46.054442	-89.000273	4	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	124	5	Muck	Pole	SAMPLED			2																2														1										
125	46.053722	-89.000286	15	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	125	3	Sand	Pole	SAMPLED			1				1								1																						1						
126	46.053002	-89.000299	20	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	126	3	Muck	Pole	SAMPLED			2				1		1		1								2												1									1				
127	46.052282	-89.000312	32	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	127	0			NONNAVIGABLE (PLANTS)																																													
128	46.051562	-89.000325	33	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	128	3	Muck	Pole	SAMPLED			2																														2										
129	46.050842	-89.000338	46	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	129	3	Muck	Pole	SAMPLED			3																														3										
130	46.050122	-89.000351	62	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	130	3	Muck	Pole	SAMPLED			3								1								2														1										
131	46.049402	-89.000364	72	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	131	3	Muck	Pole	SAMPLED			3																3																								1	
132	46.048683	-89.000377	83	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	132	3	Muck	Pole	SAMPLED			3								1								3														1										
133	46.047963	-89.000390	87	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	133	3	Muck	Pole	SAMPLED			0																																								
134	46.064512	-88.999057	132	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	134	6	Muck	Pole	SAMPLED			3																													3										
135	46.063792	-88.999070	141	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	135	6	Muck	Pole	SAMPLED			2																													2										
136	46.063072	-88.999083	147	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	136	6	Muck	Pole	SAMPLED			3								1																						3										
137	46.062352	-88.999096	156	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	137	6	Muck	Pole	SAMPLED			3								1																	1				2										
138	46.061632	-88.999109	166	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	138	7	Muck	Pole	SAMPLED			3								1																						3										
139	46.060912	-88.999122	175	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	139	7	Muck	Pole	SAMPLED			3								1																						3								1		
140	46.060192	-88.999135	187	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	140	10	Muck	Pole	SAMPLED			2								1																						2										
141	46.059472	-88.999148	196	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	141	12	Muck	Pole	SAMPLED			3																												1			3										
142	46.058752	-88.999161	210	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	142	6	Muck	Pole	SAMPLED			3								1																						3										
143	46.058032	-88.999174	219	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	143	5	Muck	Pole	SAMPLED			3																														3										
144	46.057312	-88.999187	173	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	144	5	Muck	Pole	SAMPLED			3																														3										
145	46.056593	-88.999200	164	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	145	5	Muck	Pole	SAMPLED			3																														3										
146	46.055873	-88.999213	152	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	146	5	Muck	Pole	SAMPLED			3								1										1														3										

Point Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	ID	Lake Name	County	Date	Field Crew	Point Number	Depth (ft)	Sediment	Polar, Rope	Comments	Notes	Nuisance	Total Rake Fullness	Myriophyllum spicatum	Brasenia schreberi	Bidens beckii	Ceratophyllum demersum	Chara spp.	Elatine minima	Eleocharis acicularis	Eleocharis palustris	Elodea canadensis	Eriocaulon aquaticum	Heteranthera dubia	Isoetes spp.	Juncus pelocarpus	Lobelia dortmanna	Myriophyllum sibiricum	Myriophyllum tenellum	Najas flexilis	Najas guadalupensis	Nuphar variegata	Nymphaea odorata	Potamogeton amplifolius	Potamogeton berchtoldii	Potamogeton epihydrus	Potamogeton foliosus	Potamogeton gramineus	Potamogeton illinoensis	Potamogeton praelongus	Potamogeton pusillus	Potamogeton richardsonii	Potamogeton robbinsii	Potamogeton strictifolius	Potamogeton zosterformis	Ranunculus aquatilis	Sagittaria sp. (rosette)	Schoenoplectus acutus	Schoenoplectus pungens	Sparganium angustifolium	Utricularia intermedia	Utricularia vulgaris	Vallisneria americana	Pondweed hybrid 1	Pondweed hybrid 2	Aquatic moss	Filamentous algae
147	46.055153	-88.999226	147	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	147	5	Muck	Pole	SAMPLED			2																	1																											
148	46.054433	-88.999239	5	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	148	5	Sand	Pole	SAMPLED			1									1								1													1														
149	46.053713	-88.999252	14	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	149	4	Muck	Pole	SAMPLED			1																	1													1														
150	46.052993	-88.999265	21	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	150	3	Muck	Pole	SAMPLED			2																													2														
151	46.052273	-88.999278	31	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	151	2	Muck	Pole	SAMPLED			2																	1			1									1														
152	46.051553	-88.999291	34	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	152	3	Muck	Pole	SAMPLED			1																													1														
153	46.050833	-88.999304	45	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	153	3	Muck	Pole	SAMPLED			1																	1													1														
154	46.050113	-88.999317	63	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	154	3	Muck	Pole	SAMPLED			2									1								1											1		2														
155	46.049393	-88.999330	71	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	155	3	Muck	Pole	SAMPLED			2									1								1													2														
156	46.048674	-88.999343	84	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	156	0			NONNAVIGABLE (PLANTS)																																																	
157	46.065222	-88.998009	129	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	157	7	Muck	Pole	SAMPLED			3									1								3													3		1														
158	46.064502	-88.998023	133	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	158	7	Muck	Pole	SAMPLED			3									1																					1	3		1													
159	46.063783	-88.998036	140	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	159	8	Muck	Pole	SAMPLED			2									1																					1														
160	46.063063	-88.998049	148	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	160	10	Muck	Pole	SAMPLED			3									1																					2		1		1												
161	46.062343	-88.998062	155	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	161	10	Muck	Pole	SAMPLED			3				3																									1				1												
162	46.061623	-88.998075	167	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	162	10	Muck	Pole	SAMPLED			3	2			1																									1														
163	46.060903	-88.998088	174	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	163	10	Muck	Pole	SAMPLED			3																															1		3												
164	46.060183	-88.998101	188	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	164	10	Muck	Pole	SAMPLED			3				2															1											2	1													
165	46.059463	-88.998114	195	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	165	7	Muck	Pole	SAMPLED			3	V			2					1																																			
166	46.058743	-88.998127	211	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	166	5	Muck	Pole	SAMPLED			2																															2														
167	46.058023	-88.998140	218	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	167	5	Muck	Pole	SAMPLED			3																															3														
168	46.057303	-88.998153	172	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	168	5	Muck	Pole	SAMPLED			3																															3														
169	46.056583	-88.998166	165	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	169	5	Muck	Pole	SAMPLED			3																															3														
170	46.055864	-88.998179	151	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	170	6	Muck	Pole	SAMPLED			3									1								1													3														
171	46.055144	-88.998192	148	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	171	6	Muck	Pole	SAMPLED			3																	1													3														
172	46.054424	-88.998205	6	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	172	3	Sand	Pole	SAMPLED			1					1							1	1				1													1									1					
173	46.053704	-88.998218	13	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	173	3	Muck	Pole	SAMPLED			1																	1																										
174	46.052984	-88.998231	22	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	174	3	Muck	Pole	SAMPLED			1																	1																										
175	46.052284	-88.998244	30	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	175	4	Muck	Pole	SAMPLED			0																																												
176	46.051544	-88.998257	35	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	176	3	Muck	Pole	SAMPLED			1									1								1																										
177	46.050824	-88.998270	44	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	177	3	Muck	Pole	SAMPLED			0																																											
178	46.050104	-88.998283	64	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	178	3	Muck	Pole	SAMPLED			1																	1													1														
179	46.049384	-88.998296	70	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	179	2	Muck	Pole	SAMPLED			2																	2													1														
180	46.048664	-88.998309	85	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	180	2	Muck	Pole	SAMPLED			2									1								1													2														
181	46.066653	-88.996949	122	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	181	4	Rock	Pole	SAMPLED			1																	1																										
182	46.065933	-88.996962	123	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	182	8	Muck	Pole	SAMPLED			3																															3														
183	46.065213	-88.996975	128	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	183	9	Muck	Pole	SAMPLED			2					1				1																					2														
184	46.064493	-88.996988	134	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	184	11	Muck	Pole	SAMPLED			3				2																									2														
185	46.063773	-88.997001	139	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	185	12	Muck	Pole	SAMPLED			2				1																									1		1													
186	46.063054	-88.997014	149	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	186	13	Muck	Pole	SAMPLED			3				2																									2				1										
187	46.062334	-88.997027	154	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	187	13	Muck	Pole	SAMPLED			3				2					1																					2		1												
188	46.061614	-88.997040	168	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	188	13	Muck	Pole	SAMPLED			3				3																									1		1												
189	46.060894	-88.997053	173	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	189	16		Rope	SAMPLED			1									1																					1														
190	46.060174	-88.997067	189	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	190	10	Muck	Pole	SAMPLED			3	1			2					1																																		
191	46.059454	-88.997080	194	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	191	8	Muck	Pole	SAMPLED			3																													2														
192	46.058734	-88.997093	212	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	192	5	Muck	Pole	SAMPLED			3									1																																		
193	46.058014	-88.997106	217	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	193	4	Muck	Pole	SAMPLED			3																															3														
194	46.057294	-88.997119	171	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	194	5	Muck	Pole	SAMPLED			2																															2														
195	46.056574	-88.997132	166	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	195	5	Muck	Pole	SAMPLED			3																															3														
196	46.055854	-88.997145	150	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	196	6	Muck	Pole	SAMPLED			3				1																											3														
197	46.054415	-88.997171	7	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	197	4	Muck	Pole	SAMPLED			2																	1																										
198	46.053695	-88.997184	12	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	198	3	Muck	Pole	SAMPLED			1																															1														
199	46.052975	-88.997197	23	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	199	3	Muck	Pole	SAMPLED			1																															1														
200	46.052255	-88.997210	29	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	200	2	Muck	Pole	SAMPLED			2									1								1													2														
201	46.051535	-88.997223	36	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	201	2	Muck	Pole	SAMPLED			3																	2													1		2														
202	46.050815	-88.997236	43	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	202	3	Muck	Pole	SAMPLED			0																																											
203	46.050095	-88.997249	65	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	203	3	Muck	Pole	SAMPLED			1																	1																	1										
204	46.049375	-88.997262	69	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	204	3	Muck	Pole	SAMPLED			2																	1													2														
205	46.048655	-88.997275	86	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	205	2	Muck	Pole	SAMPLED			2									1								1			1		1							1		1								1	1			
206	46.066644	-88.995915	121	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	206	9	Muck	Pole	SAMPLED			3				1					1																					1		2														
207	46.065924	-88.995928	124	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	207	10	Muck	Pole	SAMPLED			3			1																											2		1														
208	46.065204	-88.995941	127	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	208	14	Muck	Pole	SAMPLED			2																													1		1		1												
209	46.064484	-88.995954	135	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	209	14	Muck	Pole	SAMPLED			2				1																											1														
210	46.063764	-88.995967	138	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	210	16		Rope	SAMPLED			1																															1		1														
211	46.063044	-88.995980	150	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	211	14	Muck	Pole	SAMPLED			3				2																											1		2														
212	46.062325	-88.995993	153	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	212	14	Muck	Pole	SAMPLED			3				2																									1				2														
213	46.061605	-88.996006	169	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	213	13	Muck	Pole	SAMPLED			3				3																									1		1		1														
214	46.060885	-88.996019	172	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	214	13	Muck	Pole	SAMPLED			2				2					1																								1														
215	46.060165	-88.996032	190	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	215	13	Muck	Pole	SAMPLED			2																															2														
216	46.059445	-88.996045	193	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	216	9	Muck	Pole	SAMPLED			3	V								1																					1		2		1												
217	46.058725	-88.996059	213	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	217	5	Muck	Pole	SAMPLED			3																															3														
218	46.058005	-88.996072	216	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	218	5	Muck	Pole	SAMPLED			3																															3														
219	46.057285	-88.996085	170	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	219	5	Muck	Pole	SAMPLED			3									1																							3														

Point Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	ID	Lake Name	County	Date	Field Crew	Point Number	Depth (ft)	Sediment	Polar, Rope	Comments	Notes	Nuisance	Total Rake Fullness	Myriophyllum spicatum	Brasenia schreberi	Bidens beckii	Ceratophyllum demersum	Chara spp.	Elatine minima	Eleocharis acicularis	Eleocharis palustris	Elodea canadensis	Ericaulon aquaticum	Heteranthera dubia	Isoetes spp.	Juncus pelocarpus	Lobelia dortmanna	Myriophyllum sibiricum	Myriophyllum tenellum	Najas flexilis	Najas guadalupensis	Nuphar variegata	Nymphaea odorata	Potamogeton amplifolius	Potamogeton berchtoldii	Potamogeton epihydrus	Potamogeton foliosus	Potamogeton gramineus	Potamogeton illinoensis	Potamogeton praelongus	Potamogeton pusillus	Potamogeton richardsonii	Potamogeton robbinsii	Potamogeton strictifolius	Potamogeton zosteriformis	Ranunculus aquatilis	Sagittaria sp. (rosette)	Schoenoplectus acutus	Schoenoplectus pungens	Sparganium angustifolium	Utricularia intermedia	Utricularia vulgaris	Vallisneria americana	Pondweed hybrid 1	Pondweed hybrid 2	Aquatic moss	Filamentous algae
220	46.056565	-88.996098	167	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	220	5	Muck	Pole	SAMPLED			3									1								1												3															
221	46.055845	-88.996111	149	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	221	5	Muck	Pole	SAMPLED			3																				1								3															
222	46.054406	-88.996137	8	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	222	3	Muck	Pole	SAMPLED			1																		1												1															
223	46.053686	-88.99615	11	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	223	2	Muck	Pole	SAMPLED			1																		1												1															
224	46.052966	-88.996163	24	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	224	2	Muck	Pole	SAMPLED			1																		1												1															
225	46.052246	-88.996176	28	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	225	2	Muck	Pole	SAMPLED			1																		1												1															
226	46.051526	-88.996189	37	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	226	2	Muck	Pole	SAMPLED			1																		1												1															
227	46.050806	-88.996202	42	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	227	2	Muck	Pole	SAMPLED			1																		1												1															
228	46.050086	-88.996215	66	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	228	2	Muck	Pole	SAMPLED			1																		1												1															
229	46.049366	-88.996228	68	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	229	1	Muck	Pole	SAMPLED			1									1									1							1				1															
230	46.067355	-88.994868	119	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	230	3	Rock	Pole	SAMPLED			1																		1																											
231	46.066635	-88.994881	120	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	231	12	Muck	Pole	SAMPLED			3				1																								1				2															
232	46.065915	-88.994894	125	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	232	15		Rope	SAMPLED			3																												1				3															
233	46.065195	-88.994907	126	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	233	17		Rope	SAMPLED			3									1																							1	2															
234	46.064475	-88.99492	136	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	234	17		Rope	SAMPLED			3									2																						1															
235	46.063755	-88.994933	137	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	235	18		Rope	SAMPLED			3				1					1																						1		3															
236	46.063035	-88.994946	151	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	236	15	Muck	Pole	SAMPLED			3				1					1																								3															
237	46.062315	-88.994959	152	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	237	16		Rope	SAMPLED			3									1																							1	3															
238	46.061596	-88.994972	170	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	238	17		Rope	SAMPLED			2									1																							1	1															
239	46.060876	-88.994985	171	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	239	14	Muck	Pole	SAMPLED			3				3																								1				1															
240	46.060156	-88.994998	191	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	240	12	Muck	Pole	SAMPLED			3				3																								1				1															
241	46.059436	-88.995011	192	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	241	9	Muck	Pole	SAMPLED			3	1			1																								1				1															
242	46.058716	-88.995024	214	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	242	8	Muck	Pole	SAMPLED			3																														3															
243	46.057996	-88.995037	215	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	243	6	Muck	Pole	SAMPLED			3				1																										3															
244	46.057276	-88.995051	169	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	244	6	Muck	Pole	SAMPLED			3									1																				1		3															
245	46.056556	-88.995064	168	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	245	7	Muck	Pole	SAMPLED			3									1																						3															
246	46.054396	-88.995103	9	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	246	3	Muck	Pole	SAMPLED			2		1																1										1				1															
247	46.053677	-88.995116	10	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	247	2	Muck	Pole	SAMPLED			1																		1												1															
248	46.052957	-88.995129	25	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	248	2	Muck	Pole	SAMPLED			1																		1												1															
249	46.052237	-88.995142	27	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	249	2	Muck	Rope	SAMPLED			2																		1												2															
250	46.051517	-88.995155	38	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	250	2	Muck	Pole	SAMPLED			0																																													
251	46.050797	-88.995168	41	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	251	2	Muck	Pole	SAMPLED			1																	1												1															
252	46.050077	-88.995181	67	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	252	2	Muck	Pole	SAMPLED			1																		1												1										1					
253	46.067346	-88.993833	118	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	253	2	Rock	Pole	SAMPLED			1																																1															
254	46.066626	-88.993846	117	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	254	16		Rope	SAMPLED			3				1																								1				2															
255	46.065906	-88.99386	116	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	255	17		Rope	SAMPLED			1				1																									1															
256	46.065186	-88.993873	115	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	256	20		Rope	SAMPLED			3				1																								1				2															
257	46.064466	-88.993886	114	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	257	19		Rope	SAMPLED			1				1																												1															
258	46.063746	-88.993899	142	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	258	17		Rope	SAMPLED			0																																													
259	46.063026	-88.993912	141	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	259	17		Rope	SAMPLED			1									1																																					
260	46.062306	-88.993925	140	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	260	16		Rope	SAMPLED			1				1					1																								1															
261	46.061586	-88.993938	139	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	261	16		Rope	SAMPLED			2				1					1																								1	2															
262	46.060867	-88.993951	138	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	262	16		Rope	SAMPLED			2																																	2															
263	46.060147	-88.993964	137	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	263	15	Muck	Pole	SAMPLED			3				3																								1				1															
264	46.059427	-88.993977	136	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	264	11	Muck	Pole	SAMPLED			3				1																										1		2												1			
265	46.058707	-88.99399	135	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	265	10	Muck	Pole	SAMPLED			3				3																												1															
266	46.057987	-88.994003	134	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	266	9	Muck	Pole	SAMPLED			3																														3															
267	46.057267	-88.994016	133	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	267	6	Muck	Pole	SAMPLED			3									1																						3															
268	46.056547	-88.99403	132	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	268	5	Muck	Pole	SAMPLED			3																														3															
269	46.052228	-88.994108	26	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	269	2	Muck	Pole	SAMPLED			3																	1		1										1		1	3															
270	46.051508	-88.994121	39	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	270	2	Muck	Pole	SAMPLED			2									1									1												1	2															
271	46.050788	-88.994134	40	Big Sand Lake	Vilas	7/28/2016	BTB & LJS	271	2	Muck	Pole	SAMPLED			2		1															1		1												1											1	1			
272	46.067337	-88.992799	109	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	272	8	Sand	Pole	SAMPLED			3																	3																											
273	46.066617	-88.992812	110	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	273	20		Rope	SAMPLED			0																																													
274	46.065897	-88.992825	111	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	274	19		Rope	SAMPLED			1																																1															
275	46.065177	-88.992838	112	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	275	19		Rope	SAMPLED			0																																													
276	46.064457	-88.992851	113	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	276	18		Rope	SAMPLED			0																																													
277	46.063737	-88.992865	121	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	277	16		Rope	SAMPLED			0																																													
278	46.063017	-88.992878	122	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	278	16		Rope	SAMPLED			1																																		1															
279	46.062297	-88.992891	123	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	279	16		Rope	SAMPLED			0																																													
280	46.061577	-88.992904	124	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	280	16		Rope	SAMPLED			0																																													
281	46.060857	-88.992917	125	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	281	16		Rope	SAMPLED			1									1									1												1				1															
282	46.060138	-88.99293	126	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	282	12	Muck	Pole	SAMPLED			3				2					1									1												1	1	1		1															
283	46.059418	-88.992943	127	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	283	10	Muck	Pole	SAMPLED			3																														1			3		1															
284	46.058698	-88.992956	128	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	284	10	Muck	Pole	SAMPLED			3				1					1									1														3															
285	46.057978	-88.992969	129	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	285	8	Muck	Pole	SAMPLED			3																																3															
286	46.057258	-88.992982	130	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	286	6	Muck	Pole	SAMPLED			3									1									1														3		1															
287	46.056538	-88.992995	131	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	287	6	Muck	Pole	SAMPLED			3									1																						3															
288	46.067328	-88.991765	108	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	288	11	Muck	Pole	SAMPLED			3																	3																											
289	46.066608	-88.991778	107	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	289	19		Rope	SAMPLED			1									1																																					
290	46.065888	-88.991791	106	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	290	19		Rope	SAMPLED			0																																													
291	46.065168	-88.991804	105	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	291	19		Rope	SAMPLED			0																																													
292	46.064448	-88.991817	104	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	292	19		Rope	SAMPLED			0																																													

Point Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	ID	Lake Name	County	Date	Field Crew	Point Number	Depth (ft)	Sediment	Polar, Rope	Comments	Notes	Nuisance	Total Rake Fullness	Myriophyllum spicatum	Brasenia schreberi	Bidens beckii	Ceratophyllum demersum	Chara spp.	Eleocharis acicularis	Eleocharis palustris	Elodea canadensis	Ericaulon aquaticum	Heteranthera dubia	Isoetes spp.	Juncus pelocarpus	Lobelia dortmanna	Myriophyllum sibiricum	Myriophyllum tenellum	Najas flexilis	Najas guadalupensis	Nuphar variegata	Nymphaea odorata	Potamogeton amplifolius	Potamogeton berchtoldii	Potamogeton epihydrus	Potamogeton foliosus	Potamogeton gramineus	Potamogeton illinoensis	Potamogeton praelongus	Potamogeton pusillus	Potamogeton richardsonii	Potamogeton robbinsii	Potamogeton strictifolius	Potamogeton zosteriformis	Ranunculus aquatilis	Sagittaria sp. (rosette)	Schoenoplectus acutus	Schoenoplectus pungens	Sparganium angustifolium	Utricularia intermedia	Utricularia vulgaris	Vallisneria americana	Pondweed hybrid 1	Pondweed hybrid 2	Aquatic moss	Filamentous algae
293	46.063728	-88.99183	120	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	293	18		Rope	SAMPLED			0																																								
294	46.063008	-88.991844	119	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	294	17		Rope	SAMPLED			0																																							
295	46.062288	-88.991857	118	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	295	17		Rope	SAMPLED			0																																							
296	46.061568	-88.99187	117	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	296	17		Rope	SAMPLED			0																																							
297	46.060848	-88.991883	116	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	297	16		Rope	SAMPLED			0																																							
298	46.060128	-88.991896	115	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	298	12	Muck	Pole	SAMPLED			3				2												1					1						1			1													
299	46.059409	-88.991909	114	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	299	11	Muck	Pole	SAMPLED			3								1											1									3												
300	46.058689	-88.991922	113	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	300	9	Muck	Pole	SAMPLED			3								1																					3												
301	46.057969	-88.991935	110	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	301	2	Sand	Pole	SAMPLED			0																																							
302	46.057249	-88.991948	111	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	302	2	Sand	Pole	SAMPLED			2								1							2																								
303	46.056529	-88.991961	112	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	303	2	Sand	Pole	SAMPLED			1								1								1												1						1						
304	46.068038	-88.990717	98	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	304	5	Sand	Pole	SAMPLED			1	1						1																	1							1					1			
305	46.067318	-88.990731	99	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	305	19		Rope	SAMPLED			1																																						
306	46.066598	-88.990744	100	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	306	18		Rope	SAMPLED			0																																							
307	46.065879	-88.990757	101	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	307	19		Rope	SAMPLED			0																																							
308	46.065159	-88.99077	102	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	308	20		Rope	SAMPLED			0																																							
309	46.064439	-88.990783	103	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	309	20		Rope	SAMPLED			0																																							
310	46.063719	-88.990796	101	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	310	17		Rope	SAMPLED			0																																							
311	46.062999	-88.990809	102	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	311	17		Rope	SAMPLED			0																																							
312	46.062279	-88.990822	103	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	312	17		Rope	SAMPLED			0																																							
313	46.061559	-88.990836	104	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	313	17		Rope	SAMPLED			0																																							
314	46.060839	-88.990849	105	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	314	13	Sand	Pole	SAMPLED			2								1								1													2												
315	46.060119	-88.990862	106	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	315	12	Sand	Pole	SAMPLED			3																												1			3												
316	46.059399	-88.990875	107	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	316	10	Sand	Pole	SAMPLED			3																												1			3		1												
317	46.058679	-88.990888	108	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	317	10	Muck	Pole	SAMPLED			3									2								1													3												
318	46.05796	-88.990901	109	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	318	2	Sand	Pole	SAMPLED			1							1					1					1	1																								
319	46.068749	-88.98967	97	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	319	4	Rock	Pole	SAMPLED			0																																							
320	46.068029	-88.989683	96	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	320	20		Rope	SAMPLED			0																																							
321	46.067309	-88.989696	95	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	321	20		Rope	SAMPLED			0																																							
322	46.066589	-88.989709	94	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	322	20		Rope	SAMPLED			0																																							
323	46.065869	-88.989723	93	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	323	20		Rope	SAMPLED			0																																							
324	46.06515	-88.989736	92	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	324	20		Rope	SAMPLED			0																																							
325	46.06443	-88.989749	91	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	325	20		Rope	SAMPLED			0																																							
326	46.06371	-88.989762	100	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	326	18		Rope	SAMPLED			0																																							
327	46.06299	-88.989775	99	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	327	17		Rope	SAMPLED			0																																							
328	46.06227	-88.989788	98	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	328	18		Rope	SAMPLED			0																																							
329	46.06155	-88.989801	97	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	329	17		Rope	SAMPLED			0																																							
330	46.06083	-88.989815	96	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	330	14	Sand	Pole	SAMPLED			3				1												1																								
331	46.06011	-88.989828	95	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	331	12	Sand	Pole	SAMPLED			3	2			2				1						1																								1			
332	46.05939	-88.989841	94	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	332	10	Muck	Pole	SAMPLED			3																						1						1			3												
333	46.05867	-88.989854	93	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	333	10	Muck	Pole	SAMPLED			3								1																					3												
334	46.05795	-88.989867	92	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	334	4	Sand	Pole	SAMPLED			1					1		1								1										1														
335	46.06946	-88.988623	83	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	335	4	Rock	Pole	SAMPLED			0																																							
336	46.06874	-88.988636	84	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	336	10	Sand	Pole	SAMPLED			3					1	1											3													1		1										
337	46.06802	-88.988649	85	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	337	20		Rope	SAMPLED			0																																							
338	46.0673	-88.988662	86	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	338	19		Rope	SAMPLED			0																																							
339	46.06658	-88.988675	87	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	339	19		Rope	SAMPLED			1																																							
340	46.06586	-88.988688	88	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	340	20		Rope	SAMPLED			0																																							
341	46.06514	-88.988702	89	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	341	20		Rope	SAMPLED			0																																							
342	46.06442	-88.988715	90	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	342	20		Rope	SAMPLED			0																																							
343	46.063701	-88.988728	83	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	343	17		Rope	SAMPLED			0																																							
344	46.062981	-88.988741	84	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	344	17		Rope	SAMPLED			0																																							
345	46.062261	-88.988754	85	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	345	17		Rope	SAMPLED			0																																							
346	46.061541	-88.988767	86	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	346	18		Rope	SAMPLED			0																																							
347	46.060821	-88.98878	87	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	347	13	Sand	Pole	SAMPLED			2				1												2													1		1										
348	46.060101	-88.988794	88	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	348	10	Sand	Pole	SAMPLED			3			1	1																									2		1										
349	46.059381	-88.988807	89	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	349	10	Sand	Pole	SAMPLED			3								1																			1			3												
350	46.058661	-88.98882	90	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	350	10	Sand	Pole	SAMPLED			3								1																					3										1		
351	46.057941	-88.988833	91	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	351	5	Sand	Pole	SAMPLED			1															1								1														
352	46.070171	-88.987575	82	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	352	2	Sand	Pole	SAMPLED			1							1					1													1														
353	46.069451	-88.987588	81	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	353	9	Muck	Pole	SAMPLED			3	2		1	1												1																								
354	46.068731	-88.987602	80	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	354	11	Muck	Pole	SAMPLED			1								1																					1												
355	46.068011	-88.987615	79	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	355	19		Rope	SAMPLED			0																																							
356	46.067291	-88.987628	78	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	356	19		Rope	SAMPLED			0																																							
357	46.066571	-88.987641	77	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	357	21		Rope	SAMPLED			0																																							
358	46.065851	-88.987654	76	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	358	22			DEEP																																									
359	46.065131	-88.987667	75	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	359	22			DEEP																																									
360	46.064411	-88.98768	74	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	360	21		Rope	SAMPLED			0																																							
361	46.063691	-88.987694	82	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	361	18		Rope	SAMPLED			0																																							
362	46.062972	-88.987707	81	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	362	19		Rope	SAMPLED			0																																							
363	46.062252	-88.98772	80	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	363	18		Rope	SAMPLED			0																																							
364	46.061532	-88.987733	79	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	364	17		Rope	SAMPLED			0																																							
365	46.060812	-88.987746	78	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	365	17		Rope	SAMPLED			1																																							1

Point Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	ID	Lake Name	County	Date	Field Crew	Point Number	Depth (ft)	Sediment	Polar, Rope	Comments	Notes	Nuisance	Total Rake Fullness	Myriophyllum spicatum	Brasenia schreberi	Bidens beckii	Ceratophyllum demersum	Chara spp.	Eleocharis acicularis	Eleocharis palustris	Elodea canadensis	Ericaulon aquaticum	Heteranthera dubia	Isoetes spp.	Juncus pelocarpus	Lobelia dortmanna	Myriophyllum sibiricum	Myriophyllum tenellum	Najas flexilis	Najas guadalupensis	Nuphar variegata	Nymphaea odorata	Potamogeton amplifolius	Potamogeton berchtoldii	Potamogeton epihydrus	Potamogeton foliosus	Potamogeton gramineus	Potamogeton illinoensis	Potamogeton praelongus	Potamogeton pusillus	Potamogeton richardsonii	Potamogeton robbinsii	Potamogeton strictifolius	Potamogeton zosteriformis	Ranunculus aquatilis	Sagittaria sp. (rosette)	Schoenoplectus acutus	Schoenoplectus pungens	Sparganium angustifolium	Utricularia intermedia	Utricularia vulgaris	Vallisneria americana	Pondweed hybrid 1	Pondweed hybrid 2	Aquatic moss	Filamentous algae
366	46.060092	-88.987759	77	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	366	13	Sand	Pole	SAMPLED			2																1																									
367	46.059372	-88.987773	76	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	367	11	Sand	Pole	SAMPLED			3	3			1																							1		1	2										
368	46.058652	-88.987786	75	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	368	10	Sand	Pole	SAMPLED			3								1																		1			3										
369	46.057932	-88.987799	74	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	369	6	Sand	Pole	SAMPLED			3								1								3							1														
370	46.070161	-88.986541	62	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	370	2	Sand	Pole	SAMPLED			1															1																								
371	46.069442	-88.986554	63	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	371	9	Muck	Pole	SAMPLED			3	V																3																							
372	46.068722	-88.986567	64	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	372	10	Muck	Pole	SAMPLED			3				1																						1			1		3								
373	46.068002	-88.98658	65	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	373	21		Rope	SAMPLED			0																																							
374	46.067282	-88.986594	66	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	374	20		Rope	SAMPLED			0																																							
375	46.066562	-88.986607	67	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	375	21		Rope	SAMPLED			0																																							
376	46.065842	-88.98662	68	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	376	21		Rope	SAMPLED			0																																							
377	46.065122	-88.986633	71	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	377	22			DEEP																																									
378	46.064402	-88.986646	73	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	378	21		Rope	SAMPLED			0																																							
379	46.063682	-88.986659	65	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	379	18		Rope	SAMPLED			0																																							
380	46.062962	-88.986673	66	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	380	18		Rope	SAMPLED			0																																							
381	46.062242	-88.986686	67	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	381	17		Rope	SAMPLED			1								1																															
382	46.061523	-88.986699	68	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	382	17		Rope	SAMPLED			0																																							
383	46.060803	-88.986712	69	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	383	18		Rope	SAMPLED			0																																							
384	46.060083	-88.986725	70	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	384	13	Sand	Pole	SAMPLED			3				3														1												1									
385	46.059363	-88.986738	71	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	385	11	Sand	Pole	SAMPLED			2				1														2																		1		
386	46.058643	-88.986752	72	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	386	10	Sand	Pole	SAMPLED			3								1										1														3								
387	46.057923	-88.986765	73	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	387	3	Sand	Pole	SAMPLED			1					1			1										1									1												
388	46.069432	-88.98552	61	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	388	5	Sand	Pole	SAMPLED			1											1															1												
389	46.068712	-88.985533	60	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	389	9	Sand	Pole	SAMPLED			3																																3								
390	46.067993	-88.985546	59	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	390	20		Rope	SAMPLED			1																																							
391	46.067273	-88.985559	58	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	391	22			DEEP																																									
392	46.066553	-88.985573	57	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	392	22			DEEP																																									
393	46.065833	-88.985586	69	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	393	22			DEEP																																									
394	46.065113	-88.985599	70	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	394	23			DEEP																																									
395	46.064393	-88.985612	72	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	395	22			DEEP																																									
396	46.063673	-88.985625	64	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	396	19		Rope	SAMPLED			0																																							
397	46.062953	-88.985638	63	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	397	18		Rope	SAMPLED			0																																							
398	46.062233	-88.985652	62	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	398	18		Rope	SAMPLED			0																																							
399	46.061513	-88.985665	61	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	399	16		Rope	SAMPLED			0																																							
400	46.060793	-88.985678	60	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	400	18		Rope	SAMPLED			0																																							
401	46.060074	-88.985691	59	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	401	16		Rope	SAMPLED			0																																							
402	46.059354	-88.985704	58	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	402	12	Sand	Pole	SAMPLED			3																																3								
403	46.058634	-88.985718	57	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	403	10	Sand	Pole	SAMPLED			3				1																										3		1					1		
404	46.057914	-88.985731	56	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	404	4	Sand	Pole	SAMPLED			1					1		1										1	1														1							
405	46.069423	-88.984485	45	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	405	5	Sand	Pole	SAMPLED			1																																							
406	46.068703	-88.984499	46	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	406	11	Sand	Pole	SAMPLED			1				1																							1												
407	46.067983	-88.984512	47	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	407	20		Rope	SAMPLED			0																																							
408	46.067263	-88.984525	48	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	408	22			DEEP																																									
409	46.066544	-88.984538	49	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	409	22		Rope	SAMPLED			0																																							
410	46.065824	-88.984551	56	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	410	23			DEEP																																									
411	46.065104	-88.984565	55	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	411	23			DEEP																																									
412	46.064384	-88.984578	54	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	412	22			DEEP																																									
413	46.063664	-88.984591	47	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	413	20		Rope	SAMPLED			1																																							
414	46.062944	-88.984604	48	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	414	21		Rope	SAMPLED			0																																							
415	46.062224	-88.984617	49	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	415	18		Rope	SAMPLED			0																																							
416	46.061504	-88.984631	50	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	416	18		Rope	SAMPLED			0																																							
417	46.060784	-88.984644	51	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	417	18		Rope	SAMPLED			0																																							
418	46.060064	-88.984657	52	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	418	18		Rope	SAMPLED			0																																							
419	46.059344	-88.98467	53	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	419	11	Sand	Pole	SAMPLED			3				1				1								1			1												3								
420	46.058625	-88.984683	54	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	420	10	Sand	Pole	SAMPLED			3	1			1				1								2														3								
421	46.057905	-88.984697	55	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	421	3	Sand	Pole	SAMPLED			2							2																			1												
422	46.070134	-88.983438	44	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	422	2	Sand	Pole	SAMPLED			1					1	1						1						1														1							
423	46.069414	-88.983451	43	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	423	7	Sand	Pole	SAMPLED			2	1															1																							
424	46.068694	-88.983464	42	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	424	11	Sand	Pole	SAMPLED			1																											1			1								
425	46.067974	-88.983478	41	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	425	16		Rope	SAMPLED			0																																							
426	46.067254	-88.983491	40	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	426	22			DEEP																																									
427	46.066534	-88.983504	50	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	427	23		Rope	SAMPLED			0																																							
428	46.065814	-88.983517	51	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	428	23			DEEP																																									
429	46.065095	-88.98353	52	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	429	24			DEEP																																									
430	46.064375	-88.983544	53	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	430	23			DEEP																																									
431	46.063655	-88.983557	38	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	431	0			DEEP																																									
432	46.062935	-88.98357	37	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	432	15	Sand	Pole	SAMPLED			1								1																								1		1						
433	46.062215	-88.983583	36	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	433	17		Rope	SAMPLED			0																																							
434	46.061495	-88.983597	35	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	434	19		Rope	SAMPLED			0																																							
435	46.060775	-88.98361	34	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	435	19		Rope	SAMPLED			0																																							
436	46.060055	-88.983623	32	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	436	19		Rope	SAMPLED			0																																							
437	46.059335	-88.983636	31	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	437	11	Sand	Pole	SAMPLED			3				1																								1			3								
438	46.058615	-88.983649	30	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	438	9	Sand	Pole	SAMPLED			3								1										1												2		1					1		

Point Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	ID	Lake Name	County	Date	Field Crew	Point Number	Depth (ft)	Sediment	Pole; Rope	Comments	Notes	Nuisance	Tidal Rake Fullness	Myriophyllum spicatum	Brasenia schreberi	Bidens beckii	Ceratophyllum demersum	Chara spp.	Elatine minima	Eleocharis acicularis	Eleocharis palustris	Elodea canadensis	Eriocaulon aquaticum	Heteranthera dubia	Isoetes spp.	Juncus pelocarpus	Lobelia dortmanna	Myriophyllum sibiricum	Myriophyllum tenellum	Najas flexilis	Najas guadalupensis	Nuphar variegata	Nymphaea odorata	Potamogeton amplifolius	Potamogeton berchtoldii	Potamogeton epihydrus	Potamogeton foliosus	Potamogeton gramineus	Potamogeton illinoensis	Potamogeton praelongus	Potamogeton pusillus	Potamogeton richardsonii	Potamogeton robbinsii	Potamogeton strictifolius	Potamogeton zosterformis	Ranunculus aquatilis	Sagittaria sp. (rosette)	Schoenoplectus acutus	Schoenoplectus pungens	Sparganium angustifolium	Utricularia intermedia	Utricularia vulgaris	Vallisneria americana	Pondweed hybrid 1	Pondweed hybrid 2	Aquatic moss	Filamentous algae
439	46.057895	-88.983663	29	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	439	2	Sand	Pole	SAMPLED			1							1									1																										
440	46.070125	-88.982404	36	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	440	3	Sand	Pole	SAMPLED			1					1		1																																				
441	46.069405	-88.982417	37	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	441	11	Muck	Pole	SAMPLED			3																												1		1		1												
442	46.068685	-88.98243	38	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	442	15	Sand	Pole	SAMPLED			3									1									3																								
443	46.067965	-88.982443	39	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	443	22			DEEP																																												
444	46.067245	-88.982457	398	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	444	22			DEEP																																												
445	46.066525	-88.98247	397	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	445	22			DEEP																																												
446	46.065805	-88.982483	396	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	446	23			DEEP																																												
447	46.065085	-88.982496	395	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	447	23			DEEP																																												
448	46.064365	-88.98251	394	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	448	23			DEEP																																												
449	46.063646	-88.982523	39	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	449	19		Rope	SAMPLED			0																																										
450	46.062926	-88.982536	40	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	450	14	Sand	Pole	SAMPLED			3					3				1									1											1													
451	46.062206	-88.982549	41	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	451	15	Sand	Pole	SAMPLED			1					1				1									1											1													
452	46.061486	-88.982562	42	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	452	18		Rope	SAMPLED			0																																										
453	46.060766	-88.982576	33	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	453	20		Rope	SAMPLED			0																																										
454	46.060046	-88.982589	25	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	454	18		Rope	SAMPLED			0																																										1
455	46.059326	-88.982602	26	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	455	11	Sand	Pole	SAMPLED			3					1				1									3				1																	1		
456	46.058606	-88.982615	27	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	456	9	Sand	Pole	SAMPLED			3																		3												1		1										
457	46.057886	-88.982629	28	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	457	2	Sand	Pole	SAMPLED			1														1												1													
458	46.070835	-88.981356	35	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	458	6	Muck	Pole	SAMPLED			3																														2		1					1				
459	46.070115	-88.981369	34	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	459	10	Sand	Pole	SAMPLED			3	3																	1																								
460	46.069396	-88.981383	33	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	460	12	Muck	Pole	SAMPLED			3					1				1									1														1	2									
461	46.068676	-88.981396	32	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	461	14	Sand	Pole	SAMPLED			3					1	1												3																								
462	46.067956	-88.981409	31	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	462	22			DEEP																																												
463	46.067236	-88.981422	389	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	463	23			DEEP																																												
464	46.066516	-88.981436	390	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	464	23			DEEP																																												
465	46.065796	-88.981449	391	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	465	25			DEEP																																												
466	46.065076	-88.981462	392	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	466	24			DEEP																																												
467	46.064356	-88.981475	393	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	467	24			DEEP																																												
468	46.063636	-88.981489	46	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	468	16		Rope	SAMPLED			0																																											
469	46.062916	-88.981502	45	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	469	14	Sand	Pole	SAMPLED			3					1				1									1																		1					
470	46.062196	-88.981515	44	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	470	14	Sand	Pole	SAMPLED			1					1				1									1																		1					
471	46.061477	-88.981528	43	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	471	18		Rope	SAMPLED			0																																										
472	46.060757	-88.981542	24	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	472	0			DEEP																																												
473	46.060037	-88.981555	23	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	473	19		Rope	SAMPLED			0																																										
474	46.059317	-88.981568	22	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	474	11	Sand	Pole	SAMPLED			3					1																		1								3									
475	46.058597	-88.981581	21	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	475	8	Sand	Pole	SAMPLED			1																		1											1												
476	46.071546	-88.980309	25	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	476	6	Sand	Pole	SAMPLED			3						1												3											1												
477	46.070826	-88.980322	26	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	477	7	Sand	Pole	SAMPLED			2	1								1									1												1												
478	46.070106	-88.980335	27	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	478	18		Rope	SAMPLED			1					1																																				
479	46.069386	-88.980348	28	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	479	18		Rope	SAMPLED			1																		1																				1				
480	46.068666	-88.980362	29	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	480	15	Muck	Pole	SAMPLED			3					1												3														1										
481	46.067946	-88.980375	30	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	481	24			DEEP																																												
482	46.067227	-88.980388	388	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	482	24			DEEP																																												
483	46.066507	-88.980401	387	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	483	26			DEEP																																												
484	46.065787	-88.980415	386	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	484	26			DEEP																																												
485	46.065067	-88.980428	385	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	485	27			DEEP																																												
486	46.064347	-88.980441	384	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	486	24			DEEP																																												
487	46.063627	-88.980454	383	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	487	14	Sand	Pole	SAMPLED			1																														1												
488	46.062907	-88.980468	382	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	488	13	Sand	Pole	SAMPLED			1					1																								1								1				
489	46.062187	-88.980481	381	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	489	14	Sand	Pole	SAMPLED			2					2												1														1										
490	46.061467	-88.980494	380	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	490	20		Rope	SAMPLED			0																																										
491	46.060747	-88.980507	17	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	491	0			DEEP																																												
492	46.060028	-88.980521	18	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	492	14	Sand	Pole	SAMPLED			3																		3																								
493	46.059308	-88.980534	19	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	493	10	Sand	Pole	SAMPLED			3																		3																								
494	46.058588	-88.980547	20	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	494	4	Sand	Pole	SAMPLED			1								1		1							1																						1				
495	46.071537	-88.979274	24	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	495	7	Sand	Pole	SAMPLED			1																												1												
496	46.070817	-88.979287	23	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	496	15	Muck	Pole	SAMPLED			3									2									1																				2				
497	46.070097	-88.979301	22	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	497	17		Rope	SAMPLED			0																																										
498	46.069377	-88.979314	21	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	498	18		Rope	SAMPLED			0																																									
499	46.068657	-88.979327	20	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	499	20		Rope	SAMPLED			1																		1																								
500	46.067937	-88.979341	19	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	500	23			DEEP																																												
501	46.067217	-88.979354	371	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	501	26			DEEP																																												
502	46.066497	-88.979367	372	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	502	27			DEEP																																												
503	46.065778	-88.97938	373	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	503	27			DEEP																																												
504	46.065058	-88.979394	374	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	504	27			DEEP																																												
505	46.064338	-88.979407	375	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	505	23			DEEP																																												
506	46.063618	-88.97942	376	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	506	13	Sand	Pole	SAMPLED			1																														1												
507	46.062898	-88.979433	377	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	507	13	Sand	Pole	SAMPLED			2																														2												
508	46.062178	-88.979447	378	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	508	14	Sand	Pole	SAMPLED			2																		2														1										
509	46.061458	-88.97946	379	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	509	23			DEEP																																												
510	46.060738	-88.979473	16	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	510	0			DEEP																																												
511	46.060018	-88.979486	15	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	511	13	Sand	Pole	SAMPLED			3	1								1									2														2										

Point Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	ID	Lake Name	County	Date	Field Crew	Point Number	Depth (ft)	Sediment	Polar, Rope	Comments	Notes	Nuisance	Total Rake Fullness	Myriophyllum spicatum	Brasenia schreberi	Bidens beckii	Ceratophyllum demersum	Chara spp.	Eleocharis acicularis	Eleocharis palustris	Elodea canadensis	Ericaulon aquaticum	Heteranthera dubia	Isoetes spp.	Juncus pelocarpus	Lobelia dortmanna	Myriophyllum sibiricum	Myriophyllum tenellum	Najas flexilis	Najas guadalupensis	Nuphar variegata	Nymphaea odorata	Potamogeton amplifolius	Potamogeton berchtoldii	Potamogeton epihydrus	Potamogeton foliosus	Potamogeton gramineus	Potamogeton illinoensis	Potamogeton praelongus	Potamogeton pusillus	Potamogeton richardsonii	Potamogeton robbinsii	Potamogeton strictifolius	Potamogeton zosterformis	Ranunculus aquatilis	Sagittaria sp. (rosette)	Schoenoplectus acutus	Schoenoplectus pungens	Sparganium angustifolium	Utricularia intermedia	Utricularia vulgaris	Vallisneria americana	Pondweed hybrid 1	Pondweed hybrid 2	Aquatic moss	Filamentous algae
512	46.059298	-88.9795	14	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	512	10	Sand	Pole	SAMPLED			3				1												3																							1			
513	46.058579	-88.979513	13	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	513	0			NONNAVIGABLE (PLANTS)																																													
514	46.071528	-88.97824	13	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	514	7	Sand	Pole	SAMPLED			1	1				1											1									1																
515	46.070808	-88.978253	14	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	515	15	Muck	Pole	SAMPLED			3				1				1																		1	1		1		1								
516	46.070088	-88.978266	15	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	516	17		Rope	SAMPLED			1				1				1																																
517	46.069368	-88.97828	16	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	517	18		Rope	SAMPLED			2																		2														1								
518	46.068648	-88.978293	17	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	518	20		Rope	SAMPLED			0																																								
519	46.067928	-88.978306	18	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	519	25			DEEP																																											
520	46.067208	-88.97832	370	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	520	28			DEEP																																											
521	46.066488	-88.978333	369	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	521	29			DEEP																																											
522	46.065768	-88.978346	368	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	522	28			DEEP																																											
523	46.065048	-88.978359	367	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	523	27			DEEP																																											
524	46.064329	-88.978373	366	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	524	26			DEEP																																											
525	46.063609	-88.978386	365	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	525	19		Rope	SAMPLED			0																																									
526	46.062889	-88.978399	364	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	526	14	Muck	Pole	SAMPLED			3				1				1								1									1																
527	46.062169	-88.978413	363	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	527	17		Rope	SAMPLED																				1																								
528	46.061449	-88.978426	9	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	528	0			DEEP																																											
529	46.060729	-88.978439	10	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	529	0			DEEP																																											
530	46.060009	-88.978452	11	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	530	11	Sand	Pole	SAMPLED			3																		3														1								
531	46.059289	-88.978466	12	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	531	8	Sand	Pole	SAMPLED			3																		3					1				1												
532	46.071518	-88.977206	3	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	532	7	Sand	Pole	SAMPLED			2				1																																				
533	46.070798	-88.977219	4	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	533	10	Sand	Pole	SAMPLED			3	1																	3																								
534	46.070078	-88.977232	5	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	534	12	Sand	Pole	SAMPLED			3	1																	3																								
535	46.069359	-88.977245	6	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	535	11	Sand	Pole	SAMPLED			3																		3																								
536	46.068639	-88.977259	7	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	536	17		Rope	SAMPLED			0																																									
537	46.067919	-88.977272	8	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	537	26			DEEP																																											
538	46.067199	-88.977285	355	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	538	30			DEEP																																											
539	46.066479	-88.977299	356	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	539	31			DEEP																																											
540	46.065759	-88.977312	357	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	540	29			DEEP																																											
541	46.065039	-88.977325	358	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	541	27			DEEP																																											
542	46.064319	-88.977339	359	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	542	26			DEEP																																											
543	46.063599	-88.977352	360	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	543	24			DEEP																																											
544	46.062879	-88.977365	361	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	544	23			DEEP																																											
545	46.06216	-88.977378	362	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	545	24			DEEP																																											
546	46.06144	-88.977392	8	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	546	0			DEEP																																											
547	46.06072	-88.977405	7	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	547	14	Sand	Pole	SAMPLED			2																		2																								
548	46.06	-88.977418	6	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	548	10	Sand	Pole	SAMPLED			3																		3																								
549	46.05928	-88.977432	5	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	549	5	Sand	Pole	SAMPLED			1					1		1																		1																
550	46.071509	-88.976171	1	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	550	7	Sand	Pole	SAMPLED			1																								1																
551	46.070789	-88.976185	2	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	551	9	Muck	Pole	SAMPLED			3																																3								
552	46.070069	-88.976198	12	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	552	10	Muck	Pole	SAMPLED			2								1																								1								
553	46.069349	-88.976211	11	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	553	8	Rock	Pole	SAMPLED			1					1												1																								
554	46.068629	-88.976224	10	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	554	17		Rope	SAMPLED			3																		3																								
555	46.06791	-88.976238	9	Big Sand Lake	Vilas	7/28/2016	EJH & JMB	555	26			DEEP																																											
556	46.06719	-88.976251	354	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	556	31			DEEP																																											
557	46.06647	-88.976264	353	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	557	32			DEEP																																											
558	46.06575	-88.976278	352	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	558	30			DEEP																																											
559	46.06503	-88.976291	351	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	559	27			DEEP																																											
560	46.06431	-88.976304	350	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	560	25			DEEP																																											
561	46.06359	-88.976318	349	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	561	24			DEEP																																											
562	46.06287	-88.976331	348	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	562	25			DEEP																																											
563	46.06215	-88.976344	347	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	563	25			DEEP																																											
564	46.06143	-88.976358	1	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	564	0			DEEP	7-28-16																																											
565	46.06071	-88.976371	2	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	565	12	Sand	Pole	SAMPLED			3																		3																								
566	46.059991	-88.976384	3	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	566	10	Sand	Pole	SAMPLED			3	3																	1																								
567	46.059271	-88.976397	4	Big Sand Lake	Vilas	7/28/2016	EEH & CJF	567	2	Sand	Pole	SAMPLED			1					1												1									1																
568	46.0715	-88.975137	1	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	568	68	Sand	Pole	SAMPLED			2							1				1						1	1																							1			
569	46.07078	-88.97515	2	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	569	9	Sand	Pole	SAMPLED			2				1														1									1															1
570	46.07006	-88.975164	3	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	570	9	Sand	Pole	SAMPLED			3																		3																								
571	46.06934	-88.975177	4	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	571	9	Sand	Pole	SAMPLED			3					1												3																								
572	46.06862	-88.97519	5	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	572	20		Rope	SAMPLED			0																																									
573	46.0679	-88.975204	6	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	573	28			DEEP																																											
574	46.06718	-88.975217	306	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	574	34			DEEP																																											
575	46.06646	-88.97523	340	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	575	34			DEEP																																											
576	46.065741	-88.975243	341	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	576	29			DEEP																																											
577	46.065021	-88.975257	342	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	577	26			DEEP																																											
578	46.064301	-88.97527	343	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	578	24			DEEP																																											
579	46.063581	-88.975283	344	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	579	24			DEEP																																											
580	46.062861	-88.975297	345	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	580	24			DEEP																																											
581	46.062141	-88.97531	346	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	581	25			DEEP																																											
582	46.061421	-88.975323	213	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	582	26			DEEP																																											
583	46.060701	-88.975337	212	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	583	11	Muck	Pole	SAMPLED			3								1										3									1			2		1								
584	46.059981	-88.97535	211	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	584	10	Muck	Pole	SAMPLED			3																		3									1												

Point Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	ID	Lake Name	County	Date	Field Crew	Point Number	Depth (ft)	Sediment	Polar, Rope	Comments	Notes	Nuisance	Total Rake Fullness	Myriophyllum spicatum	Brasenia schreberi	Bidens beckii	Ceratophyllum demersum	Chara spp.	Elatine minima	Eleocharis acicularis	Eleocharis palustris	Elodea canadensis	Ericaceae aquaticum	Heteranthera dubia	Isoetes spp.	Juncus pelocarpus	Lobelia dortmanna	Myriophyllum sibiricum	Myriophyllum tenellum	Najas flexilis	Najas guadalupensis	Nuphar variegata	Nymphaea odorata	Potamogeton amplifolius	Potamogeton berchtoldii	Potamogeton epihydrus	Potamogeton foliosus	Potamogeton gramineus	Potamogeton illinoensis	Potamogeton praelongus	Potamogeton pusillus	Potamogeton richardsonii	Potamogeton robbinsii	Potamogeton strictifolius	Potamogeton zosteriformis	Ranunculus aquatilis	Sagittaria sp. (rosette)	Schoenoplectus acutus	Schoenoplectus pungens	Sparganium angustifolium	Utricularia intermedia	Utricularia vulgaris	Vallisneria americana	Pondweed hybrid 1	Pondweed hybrid 2	Aquatic moss	Filamentous algae
585	46.059261	-88.975363	210	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	585	2	Sand	Pole	SAMPLED			2																2																									
586	46.07149	-88.974103	12	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	586	3	Sand	Pole	SAMPLED			2					1		1								1																								1			
587	46.070771	-88.974116	11	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	587	7	Sand	Pole	SAMPLED			3	1			1	1												1									1											1			
588	46.070051	-88.974129	10	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	588	9	Sand	Pole	SAMPLED			3																	3																								
589	46.069331	-88.974143	9	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	589	9	Sand	Pole	SAMPLED			2					1												1									1														
590	46.068611	-88.974156	8	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	590	25			DEEP																																										
591	46.067891	-88.974169	7	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	591	31			DEEP																																										
592	46.067171	-88.974183	305	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	592	38			DEEP																																										
593	46.066451	-88.974196	339	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	593	34			DEEP																																										
594	46.065731	-88.974209	338	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	594	30			DEEP																																										
595	46.065011	-88.974223	337	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	595	27			DEEP																																										
596	46.064291	-88.974236	336	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	596	24			DEEP																																										
597	46.063572	-88.974249	335	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	597	24			DEEP																																										
598	46.062852	-88.974263	334	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	598	23			DEEP																																										
599	46.062132	-88.974276	205	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	599	26			DEEP																																										
600	46.061412	-88.974289	206	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	600	24			DEEP																																										
601	46.060692	-88.974303	207	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	601	11	Muck	Pole	SAMPLED			3	1				1				1								1												1			2								
602	46.059972	-88.974316	208	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	602	10	Muck	Pole	SAMPLED			3					1																								1			3								
603	46.059252	-88.974329	209	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	603	3	Sand	Pole	SAMPLED			2								1					1				1																							
604	46.070761	-88.973082	13	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	604	3	Rock	Pole	SAMPLED			0																																									
605	46.070041	-88.973095	14	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	605	6	Rock	Pole	SAMPLED			1																	1										1													
606	46.069321	-88.973108	15	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	606	9	Sand	Pole	SAMPLED			3					1												2									1													
607	46.068602	-88.973122	16	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	607	17		Rope	SAMPLED			0																																								
608	46.067882	-88.973135	17	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	608	32			DEEP																																										
609	46.067162	-88.973148	304	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	609	38			DEEP																																										
610	46.066442	-88.973162	328	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	610	33			DEEP																																										
611	46.065722	-88.973175	329	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	611	28			DEEP																																										
612	46.065002	-88.973188	330	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	612	26			DEEP																																										
613	46.064282	-88.973202	331	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	613	25			DEEP																																										
614	46.063562	-88.973215	332	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	614	24			DEEP																																										
615	46.062842	-88.973228	333	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	615	23			DEEP																																										
616	46.062122	-88.973242	204	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	616	25			DEEP																																										
617	46.061403	-88.973255	203	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	617	18		Rope	SAMPLED			0																																									
618	46.060683	-88.973268	202	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	618	10	Muck	Pole	SAMPLED			2																														1			2		1						
619	46.059963	-88.973282	201	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	619	10	Muck	Pole	SAMPLED			3	1								1																						3								
620	46.059243	-88.973295	200	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	620	3	Rock	Pole	SAMPLED			2					1				1							2												1											
621	46.070752	-88.972047	22	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	621	4	Rock	Pole	SAMPLED			1																1		1								1													
622	46.070032	-88.972061	21	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	622	5	Rock	Pole	SAMPLED			1																										1													
623	46.069312	-88.972074	20	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	623	10	Sand	Pole	SAMPLED			3					1												3																							
624	46.068592	-88.972087	19	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	624	13	Sand	Pole	SAMPLED			3				1												3																							
625	46.067872	-88.972101	18	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	625	32			DEEP																																										
626	46.067152	-88.972114	303	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	626	37			DEEP																																										
627	46.066433	-88.972127	327	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	627	32			DEEP																																										
628	46.065713	-88.972141	326	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	628	28			DEEP																																										
629	46.064993	-88.972154	325	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	629	26			DEEP																																										
630	46.064273	-88.972168	324	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	630	25			DEEP																																										
631	46.063553	-88.972181	323	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	631	24			DEEP																																										
632	46.062833	-88.972194	322	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	632	23			DEEP																																										
633	46.062113	-88.972208	195	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	633	26			DEEP																																										
634	46.061393	-88.972221	196	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	634	13	Sand	Pole	SAMPLED			2																2																							
635	46.060673	-88.972234	197	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	635	10	Muck	Pole	SAMPLED			3					1																				1			2								
636	46.059953	-88.972248	198	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	636	7	Sand	Pole	SAMPLED			2																2																							
637	46.059234	-88.972261	199	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	637	1	Rock	Pole	SAMPLED			1																																				1			
638	46.071463	-88.971	33	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	638	2	Sand	Pole	SAMPLED			2					1																				1									1			
639	46.070743	-88.971013	23	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	639	4	Rock	Pole	SAMPLED			1								1								1		1								1													
640	46.070023	-88.971026	24	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	640	4	Sand	Pole	SAMPLED				1								1								1																		1			
641	46.069303	-88.97104	25	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	641	12	Sand	Pole	SAMPLED			0																																							
642	46.068583	-88.971053	26	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	642	12	Sand	Pole	SAMPLED			1																1																							
643	46.067863	-88.971066	27	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	643	28			DEEP																																										
644	46.067143	-88.97108	302	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	644	34			DEEP																																										
645	46.066423	-88.971093	316	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	645	30			DEEP																																										
646	46.065703	-88.971107	317	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	646	27			DEEP																																										
647	46.064983	-88.97112	318	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	647	26			DEEP																																										
648	46.064264	-88.971133	319	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	648	24			DEEP																																										
649	46.063544	-88.971147	320	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	649	24			DEEP																																										
650	46.062824	-88.97116	321	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	650	24			DEEP																																										
651	46.062104	-88.971173	194	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	651	0			DEEP																																										
652	46.061384	-88.971187	193	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	652	12	Sand	Pole	SAMPLED			3					1												3																							
653	46.060664	-88.9712	192	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	653	10	Sand	Pole	SAMPLED			3	1																														3								
654	46.059944	-88.971214	191	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	654	3	Sand	Pole	SAMPLED			3								1					1				1																						1			
655	46.071453	-88.969965	34	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	655	4	Sand	Pole	SAMPLED			1																1	1																							1	
656	46.070733	-88.969979	32	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	656	4	Sand	Pole	SAMPLED			1					1												1										1													
657	46.070013	-88.969992	31	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	657	11	Muck	Pole	SAMPLED			3																2														2		1						

Point Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	ID	Lake Name	County	Date	Field Crew	Point Number	Depth (ft)	Sediment	Polar, Rope	Comments	Notes	Nuisance	Tidal Rake Fullness	Myriophyllum spicatum	Brasenia schreberi	Bidens beckii	Ceratophyllum demersum	Chara spp.	Elatine minima	Eleocharis acicularis	Eleocharis palustris	Elodea canadensis	Ericaulon aquaticum	Heteranthera dubia	Isoetes spp.	Juncus pelocarpus	Lobelia dortmanna	Myriophyllum sibiricum	Myriophyllum tenellum	Najas flexilis	Najas guadalupensis	Nuphar variegata	Nymphaea odorata	Potamogeton amplifolius	Potamogeton berchtoldii	Potamogeton epihydrus	Potamogeton foliosus	Potamogeton gramineus	Potamogeton illinoensis	Potamogeton praelongus	Potamogeton pusillus	Potamogeton richardsonii	Potamogeton robbinsii	Potamogeton strictifolius	Potamogeton zosteriformis	Ranunculus aquatilis	Sagittaria sp. (rosette)	Schoenoplectus acutus	Schoenoplectus pungens	Sparganium angustifolium	Utricularia intermedia	Utricularia vulgaris	Vallisneria americana	Pondweed hybrid 1	Pondweed hybrid 2	Aquatic moss	Filamentous algae
658	46.069294	-88.970005	30	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	658	13	Sand	Pole	SAMPLED			3																	3																										
659	46.068574	-88.970019	29	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	659	27			DEEP																																													
660	46.067854	-88.970032	28	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	660	32			DEEP																																													
661	46.067134	-88.970046	301	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	661	32			DEEP																																													
662	46.066414	-88.970059	300	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	662	29			DEEP																																													
663	46.065694	-88.970072	299	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	663	27			DEEP																																													
664	46.064974	-88.970086	298	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	664	26			DEEP																																													
665	46.064254	-88.970099	297	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	665	25			DEEP																																													
666	46.063534	-88.970113	296	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	666	0			DEEP																												26																		
667	46.062814	-88.970126	295	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	667	26			DEEP																																													
668	46.062095	-88.970139	188	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	668	31			DEEP																																													
669	46.061375	-88.970153	189	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	669	10	Muck	Pole	SAMPLED			2			1																													2												
670	46.060655	-88.970166	190	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	670	4	Sand	Pole	SAMPLED			2					1		2					1				1										1													1			
671	46.072164	-88.968918	35	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	671	3	Sand	Pole	SAMPLED			1																1		1																			1				1			
672	46.071444	-88.968931	36	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	672	7	Muck	Pole	SAMPLED			3	V								1								2																									
673	46.070724	-88.968944	37	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	673	9	Sand	Pole	SAMPLED			2			1																													2												
674	46.070004	-88.968958	38	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	674	23			DEEP																																													
675	46.069284	-88.968971	136	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	675	0			DEEP																																													
676	46.068564	-88.968985	286	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	676	30			DEEP																																													
677	46.067844	-88.968998	287	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	677	29			DEEP																																													
678	46.067125	-88.969011	288	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	678	28			DEEP																																													
679	46.066405	-88.969025	289	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	679	29			DEEP																																													
680	46.065685	-88.969038	290	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	680	28			DEEP																																													
681	46.064965	-88.969052	291	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	681	27			DEEP																																													
682	46.064245	-88.969065	292	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	682	27			DEEP																																													
683	46.063525	-88.969078	293	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	683	26			DEEP																																													
684	46.062805	-88.969092	294	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	684	27			DEEP																																													
685	46.062085	-88.969105	187	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	685	24			DEEP																																													
686	46.061365	-88.969119	186	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	686	9	Muck	Pole	SAMPLED			2	V				1				1							1			1													1												
687	46.072874	-88.96787	43	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	687	3	Sand	Pole	SAMPLED			1							1																														1						
688	46.072155	-88.967883	42	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	688	7	Muck	Pole	SAMPLED			3																		3																			1						
689	46.071435	-88.967897	41	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	689	9	Muck	Pole	SAMPLED			3																		1																		3						
690	46.070715	-88.96791	40	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	690	11	Muck	Pole	SAMPLED			3																		2																		2						
691	46.069995	-88.967923	39	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	691	24			DEEP																																													
692	46.069275	-88.967937	285	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	692	28			DEEP																																													
693	46.068555	-88.96795	284	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	693	28			DEEP																																													
694	46.067835	-88.967964	283	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	694	28			DEEP																																													
695	46.067115	-88.967977	282	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	695	29			DEEP																																													
696	46.066395	-88.967991	281	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	696	29			DEEP																																													
697	46.065675	-88.968004	280	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	697	28			DEEP																																													
698	46.064955	-88.968017	279	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	698	27			DEEP																																													
699	46.064236	-88.968031	278	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	699	28			DEEP																																													
700	46.063516	-88.968044	277	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	700	28			DEEP																																													
701	46.062796	-88.968058	183	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	701	38			DEEP																																													
702	46.062076	-88.968071	184	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	702	10	Muck	Pole	SAMPLED			3			1						1									3																		1						
703	46.061356	-88.968084	185	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	703	2	Rock	Pole	SAMPLED			0																																										
704	46.073585	-88.966822	44	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	704	2	Rock	Pole	SAMPLED			1		1							1																																	
705	46.072865	-88.966835	45	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	705	7	Muck	Pole	SAMPLED			3																																				3						
706	46.072145	-88.966849	46	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	706	8	Muck	Pole	SAMPLED			3	1																	3											1							1						
707	46.071425	-88.966862	47	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	707	9	Muck	Pole	SAMPLED			3	V																																			3						
708	46.070705	-88.966876	48	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	708	11	Muck	Pole	SAMPLED			3																		3																								
709	46.069985	-88.966889	49	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	709	28			DEEP																																													
710	46.069266	-88.966903	268	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	710	28			DEEP																																													
711	46.068546	-88.966916	269	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	711	28			DEEP																																													
712	46.067826	-88.966929	270	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	712	29			DEEP																																													
713	46.067106	-88.966943	271	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	713	29			DEEP																																													
714	46.066386	-88.966956	272	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	714	29			DEEP																																													
715	46.065666	-88.96697	273	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	715	29			DEEP																																													
716	46.064946	-88.966983	274	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	716	29			DEEP																																													
717	46.064226	-88.966997	275	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	717	31			DEEP																																													
718	46.063506	-88.96701	276	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	718	34			DEEP																																													
719	46.062786	-88.967023	182	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	719	38			DEEP																																													
720	46.062067	-88.967037	181	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	720	4	Sand	Pole	SAMPLED			3					1		1									2																									2			
721	46.074296	-88.965774	56	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	721	1	Sand	Pole	SAMPLED			1								1																																			
722	46.073576	-88.965788	55	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	722	6	Muck	Pole	SAMPLED			3																																			3							
723	46.072856	-88.965801	54	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	723	9	Muck	Pole	SAMPLED			3				2					1									1											1			2		1						
724	46.072136	-88.965815	53	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	724	9	Muck	Pole	SAMPLED			3				1														3											1	1		1								
725	46.071416	-88.965828	52	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	725	10	Muck	Pole	SAMPLED			3	1			1																							1			3								1		
726	46.070696	-88.965841	51	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	726	10	Sand	Pole	SAMPLED			1																		1	1																						
727	46.069976	-88.965855	50	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	727	27			DEEP																																												
728	46.069256	-88.965868	267	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	728	28			DEEP																																												
729	46.068536	-88.965882	266	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	729	29			DEEP																																												
730	46.067816	-88.965895	265	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	730	29			DEEP																																												

Point Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	ID	Lake Name	County	Date	Field Crew	Point Number	Depth (ft)	Sediment	Pole; Rope	Comments	Notes	Nuisance	Tobi Rake Fullness	Myriophyllum spicatum	Brasenia schreberi	Bidens beckii	Ceratophyllum demersum	Chara spp.	Elatine minima	Eleocharis acicularis	Eleocharis palustris	Elodea canadensis	Eriocaulon aquaticum	Heteranthera dubia	Isoetes spp.	Juncus pelocarpus	Lobelia dortmanna	Myriophyllum sibiricum	Myriophyllum tenellum	Najas flexilis	Najas guadalupensis	Nuphar variegata	Nymphaea odorata	Potamogeton amplifolius	Potamogeton berchtoldii	Potamogeton epihydrus	Potamogeton foliosus	Potamogeton gramineus	Potamogeton illinoensis	Potamogeton praelongus	Potamogeton pusillus	Potamogeton richardsonii	Potamogeton robbinsii	Potamogeton strictifolius	Potamogeton zosterformis	Ranunculus aquatilis	Sagittaria sp. (rosette)	Schoenoplectus acutus	Schoenoplectus pungens	Sparganium angustifolium	Utricularia intermedia	Utricularia vulgaris	Vallisneria americana	Pondweed hybrid 1	Pondweed hybrid 2	Aquatic moss	Filamentous algae
731	46.067096	-88.965909	264	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	731	29			DEEP																																											
732	46.066377	-88.965922	263	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	732	29			DEEP																																										
733	46.065657	-88.965936	262	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	733	29			DEEP																																										
734	46.064937	-88.965949	261	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	734	30			DEEP																																										
735	46.064217	-88.965962	260	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	735	32			DEEP																																										
736	46.063497	-88.965976	179	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	736	33			DEEP																																										
737	46.062777	-88.965989	180	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	737	30			DEEP																																										
738	46.074286	-88.96474	57	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	738	7	Muck	Pole	SAMPLED			3				2					1																					3									
739	46.073566	-88.964753	58	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	739	10	Muck	Pole	SAMPLED			2				2														1															1					
740	46.072846	-88.964767	59	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	740	9	Muck	Pole	SAMPLED			3	3			1																																			
741	46.072126	-88.96478	60	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	741	12	Muck	Pole	SAMPLED			3				2																									1				1					
742	46.071407	-88.964794	61	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	742	10	Muck	Pole	SAMPLED			3				1														1													3					
743	46.070687	-88.964807	62	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	743	12	Muck	Pole	SAMPLED			1																		1																			
744	46.069967	-88.964821	63	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	744	28			DEEP																																									
745	46.069247	-88.964834	252	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	745	29			DEEP																																									
746	46.068527	-88.964847	253	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	746	29			DEEP																																									
747	46.067807	-88.964861	254	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	747	31			DEEP																																									
748	46.067087	-88.964874	255	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	748	31			DEEP																																									
749	46.066367	-88.964888	256	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	749	31			DEEP																																									
750	46.065647	-88.964901	257	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	750	30			DEEP																																									
751	46.064927	-88.964915	258	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	751	33			DEEP																																									
752	46.064208	-88.964928	259	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	752	33			DEEP																																									
753	46.063488	-88.964942	178	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	753	29			DEEP																																									
754	46.062768	-88.964955	177	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	754	11	Sand	Pole	SAMPLED			3																		3																					
755	46.074997	-88.963692	71	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	755	2	Muck	Pole	SAMPLED			2	1				1															1					1									1				
756	46.074277	-88.963705	70	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	756	6	Muck	Pole	SAMPLED			3									1								3																			
757	46.073557	-88.963719	69	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	757	9	Muck	Pole	SAMPLED			3									1																					3								
758	46.072837	-88.963732	68	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	758	8	Muck	Pole	SAMPLED			3	1			1														3								1										
759	46.072117	-88.963746	67	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	759	8	Sand	Pole	SAMPLED			1					1													1																			
760	46.071397	-88.963759	66	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	760	10	Muck	Pole	SAMPLED			3																		1													3							
761	46.070677	-88.963773	65	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	761	10	Sand	Pole	SAMPLED			0																																						
762	46.069957	-88.963786	64	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	762	28			DEEP																																									
763	46.069237	-88.9638	251	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	763	29			DEEP																																									
764	46.068518	-88.963813	250	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	764	29			DEEP																																									
765	46.067798	-88.963827	249	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	765	30			DEEP																																									
766	46.067078	-88.96384	248	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	766	30			DEEP																																									
767	46.066358	-88.963854	247	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	767	31			DEEP																																									
768	46.065638	-88.963867	246	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	768	31			DEEP																																									
769	46.064918	-88.963881	245	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	769	33			DEEP																																									
770	46.064198	-88.963894	174	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	770	31			DEEP																																									
771	46.063478	-88.963908	175	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	771	14	Sand	Pole	SAMPLED			3																		3																					
772	46.062758	-88.963921	176	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	772	10	Sand	Pole	SAMPLED			3				1														2															1					
773	46.074987	-88.962658	72	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	773	0			NONNAVIGABLE (PLANTS)	hardstem																																										
774	46.074267	-88.962671	73	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	774	4	Sand	Pole	SAMPLED			2																	2	1								1											
775	46.073547	-88.962685	74	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	775	9	Muck	Pole	SAMPLED			3																														3							
776	46.072828	-88.962698	75	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	776	10	Muck	Pole	SAMPLED			3				2																										3							
777	46.072108	-88.962712	76	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	777	8	Sand	Pole	SAMPLED			3					1												3																			
778	46.071388	-88.962725	77	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	778	9	Sand	Pole	SAMPLED			1																		1													1							
779	46.070668	-88.962738	78	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	779	10	Sand	Pole	SAMPLED			0																																						
780	46.069948	-88.962752	79	Big Sand Lake	Vilas	7/27/2016	TWH & CMB	780	24			DEEP																																									
781	46.069228	-88.962765	238	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	781	30			DEEP																																									
782	46.068508	-88.962779	239	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	782	32			DEEP																																									
783	46.067788	-88.962792	240	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	783	32			DEEP																																									
784	46.067068	-88.962806	241	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	784	32			DEEP																																									
785	46.066348	-88.962819	242	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	785	32			DEEP																																									
786	46.065629	-88.962833	243	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	786	33			DEEP																																									
787	46.064909	-88.962846	244	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	787	34			DEEP																																									
788	46.064189	-88.96286	173	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	788	25			DEEP																																									
789	46.063469	-88.962873	172	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	789	12	Muck	Pole	SAMPLED			2																		2																	1				
790	46.062749	-88.962887	171	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	790	0			TEMPORARY OBSTACLE																																										
791	46.062029	-88.9629	170	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	791	2	Sand	Pole	SAMPLED			2						1	1									2																					
792	46.074978	-88.961623	89	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	792	3	Muck	Pole	SAMPLED			3	V																														3							
793	46.074258	-88.961637	88	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	793	6	Sand	Pole	SAMPLED			3					1																										3							
794	46.073538	-88.96165	87	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	794	5	Sand	Pole	SAMPLED			1						1		1										1	1																		1		
795	46.072818	-88.961664	86	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	795	7	Sand	Pole	SAMPLED			1																		1																			
796	46.072098	-88.961677	85	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	796	8	Sand	Pole	SAMPLED			0																																						
797	46.071378	-88.961691	84	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	797	9	Sand	Pole	SAMPLED			1																				1																		
798	46.070658	-88.961704	83	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	798	10	Sand	Pole	SAMPLED			1																														1							
799	46.069939	-88.961718	82	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	799	14	Sand	Pole	SAMPLED			0																																						
800	46.069219	-88.961731	98	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	800	34			DEEP																																									
801	46.068499	-88.961745	237	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	801	33			DEEP																																									
802	46.067779	-88.961758	236	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	802	33			DEEP																																									
803	46.067059	-88.961772	235	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	803	35			DEEP																																									

Point Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	ID	Lake Name	County	Date	Field Crew	Point Number	Depth (ft)	Sediment	Pole; Rope	Comments	Notes	Nuisance	Tidal; Rake Fullness	Myriophyllum spicatum	Brasenia schreberi	Bidens beckii	Ceratophyllum demersum	Chara spp.	Eleocharis acicularis	Eleocharis palustris	Elodea canadensis	Ericaceae aquaticum	Heteranthera dubia	Isoetes spp.	Juncus pelocarpus	Lobelia dortmanna	Myriophyllum sibiricum	Myriophyllum tenellum	Najas flexilis	Najas guadalupensis	Nuphar variegata	Nymphaea odorata	Potamogeton amplifolius	Potamogeton berchtoldii	Potamogeton epihydrus	Potamogeton foliosus	Potamogeton gramineus	Potamogeton illinoensis	Potamogeton praelongus	Potamogeton pusillus	Potamogeton richardsonii	Potamogeton robbinsii	Potamogeton strictifolius	Potamogeton zosteriformis	Ranunculus aquatilis	Sagittaria sp. (rosette)	Schoenoplectus acutus	Schoenoplectus pungens	Sparganium angustifolium	Utricularia intermedia	Utricularia vulgaris	Vallisneria americana	Pondweed hybrid 1	Pondweed hybrid 2	Aquatic moss	Filamentous algae
804	46.066339	-88.961785	234	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	804	34			DEEP																																									
805	46.065619	-88.961799	233	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	805	35			DEEP																																									
806	46.064899	-88.961812	232	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	806	34			DEEP																																									
807	46.064179	-88.961826	166	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	807	31			DEEP																																									
808	46.063459	-88.961839	167	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	808	11	Muck	Pole	SAMPLED			3																3															1							
809	46.06274	-88.961853	168	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	809	9	Muck	Pole	SAMPLED			3																											1		2		1					
810	46.06202	-88.961866	169	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	810	2	Sand	Pole	SAMPLED			2							1						2																						
811	46.074968	-88.960589	90	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	811	0			NONNAVIGABLE (PLANTS)																																									
812	46.074249	-88.960602	91	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	812	2	Rock	Pole	SAMPLED			1														1		1		1															1				
813	46.073529	-88.960616	92	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	813	2	Rock	Pole	SAMPLED			1														1										1											
814	46.072809	-88.960629	93	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	814	5	Sand	Pole	SAMPLED			2					1		1									1	1							1									1				
815	46.072089	-88.960643	94	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	815	7	Sand	Pole	SAMPLED			2					1											1	1							1									1				
816	46.071369	-88.960656	95	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	816	8	Sand	Pole	SAMPLED			0																																				
817	46.070649	-88.96067	96	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	817	9	Sand	Pole	SAMPLED			0																																				
818	46.069929	-88.960683	97	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	818	11	Sand	Pole	SAMPLED			0																																				
819	46.069209	-88.960697	99	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	819	36			DEEP																																								
820	46.068489	-88.96071	226	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	820	34			DEEP																																								
821	46.067769	-88.960724	227	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	821	36			DEEP																																								
822	46.06705	-88.960737	228	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	822	41			DEEP																																								
823	46.06633	-88.960751	229	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	823	41			DEEP																																								
824	46.06561	-88.960764	230	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	824	39			DEEP																																								
825	46.06489	-88.960778	231	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	825	36			DEEP																																								
826	46.06417	-88.960791	165	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	826	24			DEEP																																								
827	46.06345	-88.960805	164	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	827	9	Muck	Pole	SAMPLED			1			1													1																					
828	46.06273	-88.960818	163	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	828	8	Muck	Pole	SAMPLED			2			1																							1					2					
829	46.074239	-88.959568	107	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	829	0			NONNAVIGABLE (PLANTS)	hardstem																																									
830	46.073519	-88.959581	106	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	830	3	Rock	Pole	SAMPLED			1																																	1				
831	46.072799	-88.959595	105	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	831	3	Rock	Pole	SAMPLED			1					1		1									1									1									1				
832	46.072079	-88.959609	104	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	832	6	Sand	Pole	SAMPLED			1					1											1									1									1				
833	46.07136	-88.959622	103	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	833	7	Sand	Pole	SAMPLED			2					1											1									1									1				
834	46.07064	-88.959636	102	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	834	9	Sand	Pole	SAMPLED			0																																				
835	46.06992	-88.959649	101	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	835	10	Sand	Pole	SAMPLED			1																1																			1				
836	46.0692	-88.959663	100	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	836	24			DEEP																																								
837	46.06848	-88.959676	225	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	837	34			DEEP																																								
838	46.06776	-88.95969	224	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	838	40			DEEP																																								
839	46.06704	-88.959703	223	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	839	45			DEEP																																								
840	46.06632	-88.959717	222	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	840	50			DEEP																																								
841	46.0656	-88.95973	221	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	841	46			DEEP																																								
842	46.06488	-88.959744	158	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	842	0			DEEP																																								
843	46.064161	-88.959757	159	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	843	28			DEEP																																								
844	46.063441	-88.959771	160	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	844	9	Muck	Pole	SAMPLED			3		1						1								3																					
845	46.062721	-88.959784	162	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	845	4	Rock	Pole	SAMPLED			1							1																	1												
846	46.07351	-88.958547	108	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	846	2	Sand	Pole	SAMPLED			1					1				1																								1				
847	46.07279	-88.958561	109	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	847	3	Rock	Pole	SAMPLED			1					1		1																	1												
848	46.07207	-88.958574	110	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	848	5	Rock	Pole	SAMPLED			1					1											1									1									1				
849	46.07135	-88.958588	111	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	849	6	Sand	Pole	SAMPLED			1					1											1									1									1				
850	46.07063	-88.958601	112	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	850	8	Sand	Pole	SAMPLED			2					1											1									1												
851	46.06991	-88.958615	113	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	851	10	Sand	Pole	SAMPLED			1																1																					
852	46.06919	-88.958628	114	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	852	12	Sand	Pole	SAMPLED			0																																				
853	46.068471	-88.958642	115	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	853	34			DEEP																																								
854	46.067751	-88.958655	217	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	854	40			DEEP																																								
855	46.067031	-88.958669	218	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	855	51			DEEP																																								
856	46.066311	-88.958682	219	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	856	61			DEEP																																								
857	46.065591	-88.958696	220	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	857	57			DEEP																																								
858	46.064871	-88.95871	157	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	858	0			DEEP																																								
859	46.064151	-88.958723	156	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	859	20		Rope	SAMPLED			0																																				
860	46.063431	-88.958737	155	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	860	7	Rock	Pole	SAMPLED			1																1																					
861	46.062711	-88.95875	161	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	861	1	Rock	Pole	SAMPLED			0																																				
862	46.0735	-88.957513	123	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	862	0			NONNAVIGABLE (PLANTS)																																									
863	46.072781	-88.957526	122	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	863	2	Rock	Pole	SAMPLED			1								1							1																					
864	46.072061	-88.95754	121	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	864	5	Sand	Pole	SAMPLED			3					2		1																											1				
865	46.071341	-88.957553	120	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	865	6	Sand	Pole	SAMPLED			1					1											1	1							1									1				
866	46.070621	-88.957567	119	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	866	7	Sand	Pole	SAMPLED			1																1	1							1									1				
867	46.069901	-88.957581	118	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	867	9	Sand	Pole	SAMPLED			0																																				
868	46.069181	-88.957594	117	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	868	11	Sand	Pole	SAMPLED			1																																				
869	46.068461	-88.957608	116	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	869	35			DEEP																																								
870	46.067741	-88.957621	216	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	870	42			DEEP																																								
871	46.067021	-88.957635	143	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	871	55			DEEP																																								
872	46.066301	-88.957648	215	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	872	57			DEEP																																								
873	46.065582	-88.957662	152	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	873	0			DEEP																																								
874	46.064862	-88.957675	153	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	874	24			DEEP																																								
875	46.064142	-88.957689	154	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	875	7	Rock	Pole	SAMPLED			0																																				
876	46.072771	-88.956492	124	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	876	1	Muck	Pole	SAMPLED			1																1																					

Point Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	ID	Lake Name	County	Date	Field Crew	Point Number	Depth (ft)	Sediment	Polar, Rope	Comments	Notes	Nuisance	Total Rake Fullness	Myriophyllum spicatum	Brasenia schreberi	Bidens beckii	Ceratophyllum demersum	Chara spp.	Eleocharis acicularis	Eleocharis palustris	Elodea canadensis	Ericaulon aquaticum	Heteranthera dubia	Isoetes spp.	Juncus pelocarpus	Lobelia dortmanna	Myriophyllum sibiricum	Myriophyllum tenellum	Najas flexilis	Najas guadalupensis	Nuphar variegata	Nymphaea odorata	Potamogeton amplifolius	Potamogeton berchtoldii	Potamogeton epihydrus	Potamogeton foliosus	Potamogeton gramineus	Potamogeton illinoensis	Potamogeton praelongus	Potamogeton pusillus	Potamogeton richardsonii	Potamogeton robbinsii	Potamogeton strictifolius	Potamogeton zosteriformis	Ranunculus aquatilis	Sagittaria sp. (rosette)	Schoenoplectus acutus	Schoenoplectus pungens	Sparganium angustifolium	Utricularia intermedia	Utricularia vulgaris	Vallisneria americana	Pondweed hybrid 1	Pondweed hybrid 2	Aquatic moss	Filamentous algae
877	46.072051	-88.956506	125	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	877	4	Muck	Pole	SAMPLED			1					1		1								1	1							1																		
878	46.071331	-88.956519	126	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	878	5	Sand	Pole	SAMPLED			1																1																								
879	46.070611	-88.956533	129	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	879	6	Sand	Pole	SAMPLED			2					1										1		1																								
880	46.069891	-88.956546	130	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	880	8	Sand	Pole	SAMPLED			1																									1																
881	46.069172	-88.95656	135	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	881	10	Sand	Pole	SAMPLED			1					1												1									1																
882	46.068452	-88.956573	137	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	882	15	Sand	Pole	SAMPLED			0																																									
883	46.067732	-88.956587	142	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	883	33			DEEP																																												
884	46.067012	-88.9566	144	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	884	50			DEEP																																												
885	46.066292	-88.956614	214	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	885	51			DEEP																																												
886	46.065572	-88.956628	151	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	886	0			DEEP																																												
887	46.064852	-88.956641	150	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	887	8	Sand	Pole	SAMPLED			1																		1																								
888	46.071322	-88.955485	127	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	888	2	Sand	Pole	SAMPLED			0																																									
889	46.070602	-88.955498	128	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	889	4	Sand	Pole	SAMPLED			2					1		1									1		1								1	1														
890	46.069882	-88.955512	131	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	890	7	Sand	Pole	SAMPLED			3					1											1	1	1																								
891	46.069162	-88.955525	134	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	891	9	Sand	Pole	SAMPLED			1					1												1																								
892	46.068442	-88.955539	138	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	892	10	Sand	Pole	SAMPLED			1					1												1																								
893	46.067722	-88.955553	141	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	893	20		Rope	SAMPLED			0																																									
894	46.067002	-88.955566	145	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	894	33			DEEP																																												
895	46.066283	-88.95558	148	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	895	30			DEEP																																												
896	46.065563	-88.955593	149	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	896	25			DEEP																																												
897	46.069873	-88.954478	132	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	897	2	Sand	Pole	SAMPLED			0																																										
898	46.069153	-88.954491	133	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	898	2	Sand	Pole	SAMPLED			0																																									
899	46.068433	-88.954505	139	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	899	2	Sand	Pole	SAMPLED			0																																									
900	46.067713	-88.954518	140	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	900	3	Sand	Pole	SAMPLED			0																																									
901	46.066993	-88.954532	146	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	901	7	Sand	Pole	SAMPLED			2					1		1					1					1								1	1														
902	46.066273	-88.954546	147	Big Sand Lake	Vilas	7/28/2016	TWH & CMB	902	6	Rock	Pole	SAMPLED			0																																									

F

APPENDIX F

Comments on Draft Documents

Comments to Big Sand Lake Draft Comprehensive Management Plan – July 2015

Responses in blue by Brenton Butterfield
Responses in red by Eddie Heath
Responses in green by Todd Hanke

Comments from Michelle Nault (WDNR Water Resources Management Specialist)

I took a quick glance over this document (just the aquatic plant section 3.4). It's not atypical to have a plant analysis only display the trends in more dominant species, rather than showing trends for all species encountered. For the Tomahawk/Sandbar paper and the current whole lake 2,4-D paper I'm working on, I used a littoral %FOO cut-off of ≥10% at any point in the study (Onterra used ≥5% in this report). You could certainly ask to see all species (regardless of their FOO) displayed in a chi-square table in an Appendix. I will include figure which displays the occurrences of all species within the report.

One item of note is the sudden increase in *Najas guadalupensis* out on Big Sand. This was also observed out on Mino/Kawa. It went from not being detected at all in 2006 & 2010, to steadily increasing in 2011, 2014, & 2015 (17.2, 24.3, & 34.1%, respectively). I'm not totally convinced that this is just due to a simple mis-ID (calling actual *N. guad* as "*N. flexilis*" for the first two surveys), as even if you lumped the two *Najas* species together there's still a large overall increase in *Najas* spp. over time. Completely theoretical and not based on any data, but I wonder if *Najas guad* is able to 'take advantage' of other 2,4-D sensitive species being impacted by herbicide, and is able to expand its range and occupy these new niches?? I'm not totally up to speed on the *Najas* hybridization work which Don Les has done, but the Les et al 2010 study looked primarily at east coast populations (no samples from WI), so not sure how relevant that is to mention w. Big Sand. However there's another Les et al 2015 article on *Najas* genetics, which indicates that we have *N. flexilis*, *N. canadensis* (new spp.), *N. canadensis* x *flexilis* (hybrid), & *N. guadalupensis*. So in summary, the *Najas* ID/genetics seems to be highly complex and probably warrants future study. Regarding the identification of *N. flexilis* vs *N. guad.*, I agree with you that *N. guad*. was likely not misidentified in 2006 as subsequent surveys (with the exception of 2010) have similar frequencies for *N. flexilis*. However, given that *N. flexilis* had an occurrence of 13% in 2010 and the occurrence of *N. guad*. jumped from 0% to 17% in just one year's time from 2010 to 2011 indicates to me that some of what was called *N. flexilis* in 2010 was likely *N. guad.* And yes, I agree with you that regardless of ID, *Najas* spp. have significantly increased over time to be one of the dominant plants within the lake.

Regarding your theory about *N. guad.* taking advantage of 2,4-D-sensitive species, this is something I have been thinking about as well. Seeing that *E. canadensis* and *P. pusillus* were dominant species in 2006 and saw the largest declines following the three large-scale treatments, I looked to see if *N. guad*. was "filling in" areas where *E. canadensis* and *P. pusillus* dominated in 2006. In 2006, *E. canadensis* was primarily recorded at PI locations within the western portion of the main body of the lake and throughout the bay on the southwest end at an average depth of 7 feet. In the surveys from 2010-2016, *E. canadensis* was still found in

these same areas of the lake, albeit at a fewer number of PI locations. The bulk of *P. pusillus* population in 2006 was located in the western portion of the main body of the lake, but at a deeper depth with an average of 14 feet. As discussed in the report, the 2010-2016 surveys indicate that the *P. pusillus* population has not recovered following the treatments.

Looking spatially at the progressive expanse of *N. guad.* from 2011-2016 shows that it was most frequently encountered at PI locations with an average depth of 7 feet, and that its increase has largely been in areas that had lower occurrences of both *E. canadensis* and *P. pusillus* in 2006, with the exception of the bay in the southwestern portion of the lake. In 2006, *E. canadensis* had an occurrence of 66% within this bay (110 PI locations) compared to an occurrence of 33% in 2016. In 2016, this bay was now dominated by *N. guad*. with an occurrence of 65%. The deeper area in the western portion of the lake once occupied by *P. pusillus* contains very few PI locations with *N. guad*. Interestingly, *P. zosteriformis* has shown a statistically valid increase from 2006 to 2016, and has increased in the area where the majority of the *P. pusillus* was located in 2006.

While we certainly cannot say definitively that that the increase in *N. guad*. is the result of open niches caused by the large-scale treatments, I think the data we have suggests that this population has largely been increasing in areas where there was a lower occurrence of *E. canadensis* (with the exception of the SW bay) and *P. pusillus* prior to the large-scale treatments. The behavior of *N. guad*. in Big Sand and other area lakes leads me to believe that it was not historically found in these waterbodies, and its invasive behavior represents a recent introduction. Or, if it was historically present within these waterbodies, recent conditions, whatever those may be, are favoring the rapid increase and dominance of this plant.

My other suggestion for the %FOO line graphs would be indicate <u>all</u> herbicide treatments as dashed vertical lines, and not just the 'large-scale' ones. What I do in my graphs is to make the 'large-scale' treatments one color/line-style (red, heavy dashes), and then all the 'small-scale' treatments another color/line-style (gray, small dashes). Otherwise upon glancing at the graphs it looks like the lake hasn't had any herbicide treatments since 2010 (which I'm pretty sure they have). I think this is especially important to include on the EWM %FOO graph (Fig 3.4-14). Good suggestion. I have added new lines to indicate the subsequent small scale treatment that occurred in 2011 and 2012.

In regards to CLP, I see our DNR website has it as "verified" (as of 8/3/2006), but I checked for herbarium records and couldn't find any. I do see other voucher specimens from this survey though. The 8/3/2006 date was the last day of the PI survey, so not sure if someone saw the PI data and then added CLP as 'verified' to SWIMS, or if it was ever actually 'vouchered'. I certainly think with the crew out there (i.e. Susan, Ali, KG) that they could've correctly IDed CLP, but there's always a chance it was an error on the raw datasheets and it was written in the wrong column (we would've double checked the electronic ones previously). Thanks for the clarification.

Comments from Susan Knight (Interim Director UW Trout Lake Station)

I agree with everything Michelle said and will add a couple of things.

1. Southern naiad: It might have been misidentified in 2006, but maybe not. This plant is clearly dominating many lakes. It is abundant in High, Fishtrap and Finger now, and abundant in some areas of Lake Tom and the number of lakes is growing. As Michelle said, Les' results don't really tell us anything about 'our' N. guad. I really don't know what is going on with N. guad, but I also don't think we have evidence to blame herbicides, given its frequency in High, Fishtrap and Finger, where there have not been any treatments. However, Onterra reports that southern naiad in Big Sand Lake is not a concern at this time, but I would say it **is** worrisome with a FOO heading up towards that of *P. robbinsii* (wrongly labelled as *P. richardsonii*, unless the common name is wrong) and Elodea– though there is nothing to be done about it. I agree with you regarding the lack of data to determine why *N. guad.* is increasing in area lakes (please see my response to Michelle's comment). Thank you for pointing out that "Southern naiad in Big Sand Lake is not a concern at this time" is a poor choice of wording. That sentence was included without providing any evidence that the increase in *N. guad*. is not having adverse impacts to other plants or other aspects of the lake. I will reword this section to include that more research is needed to understand why *N. guad*. is increasing and the potential impacts it is having on the plant community and other aspects within the lake.
2. I understand they don't need to compare every species through the years, but another figure like 3.4-9 for other years, especially 2006, would have been helpful. It is hard to tell if the lake was dominated by so few species in previous years, though you can see that *P. robbinsii* and *Elodea* have been dominant in years past.
   Good suggestion. I have added relative frequency charts for the other years for which PI data are available. In 2006, fern pondweed, common waterweed, and EWM comprised approximately 52% of the plant community.
3. In many lakes, *P. robbinsii* is not usually very close to shore. It would be interesting to see if there is a change in near-shore species. I also think that N. guad may be displacing many species, as it will grow close to shore.
   Good idea. To determine if any near-shore species in Big Sand Lake have declined since the 2006 PI survey, I looked at the average depth for each submersed species across all the PI surveys from 2006-2016 and defined near-shore species as those with an average depth of 6.0 feet or less. To your point about *P. robbinsii* growing deeper, the average depth of PI locations with *P. robbinsii* from the 2006-2016 surveys was 7.0 feet compared to 6.0 feet for *N. guad.* (2011-2016). So, on average, *N. guad*. does grow at a shallower depth than *P. robbinsii* in Big Sand. Below is a list of the near-shore submersed species in Big Sand Lake as defined by my criterion above. *Isoetes* spp. was the only near-shore species to have a statistically valid decline in occurrence, 3.9% to 1.8% from 2006 to 2016. *M. tenellum* and *Chara* spp. showed statistically valid

increases, while the remaining showed no statistical difference in their occurrence.

Near-Shore Species Change from 2006 to 2016

Chara spp. – Increase from 3.4% to 8.8%
E. acicularis – No change
E. aquaticum – No change
E. minima – No change
H. dubia – No change
Isoetes spp. – Decline from 3.9% to 1.8%
J. pelocarpus – No change
L. dortmanna – No change
M. sibiricum – No change
M. tenellum – Increase from 1.2% to 3.4%
P. gramineus – No change
P. illinoensis – No change
R. aquatilis – No change
U. intermedia – No change
U. vulgaris – No change
V. americana – No change

4. The change in *P. pusillus* is the most concerning. I need to read about loss of rare species with environmental change, and how to display and interpret those results.
5. Overall I would say the *P. pusillus* drop and the *N. guad* rise are the most concerning. The former is almost certainly directly due to herbicides, the latter maybe not. I am glad Onterra counseled them not to treat in 2013, 2014.
   Yes, the large decline in the *P. pusillus* population and lack of recovery is concerning, especially since it was the third-most frequently encountered native during the 2006 survey.

6. I looked at some of the social data, and see that AIS is very important to the property owners. (Nitpicking: Figure 2.0-1. Same response in question 13 and 14.) Thanks for pointing out the incorrect figure, this has been changed. I would like to know why AIS (which probably is just EWM) is so important. Is there a navigation problem? Is it aesthetic? Is it because we told them for years it was a serious problem? I speculate this is in response to people understanding EWM population levels in the lake during the past (~2005-2009) when EWM was 25%-30%. They know what that looks like and the ecosystem services that were impacted at that time. While Onterra did not work on the lake until post 2010, I remember having a "Legislature Day" where elected officials were specifically taken to Big Sand Lake because it had the highest EWM FOO in the area & they could easily see reduced aesthetics and the connection between changes in how the ecosystem operates.

7. It wasn't until I read Michelle's comments that I caught that the red dashed lines were only the large scale herbicides. They really should have all the treatments on there. Thank you. These charts have been updated to include the small-scale treatments.

Comments from Scott Van Egeren (WDNR Water Resources Management Specialist)

Minor comments

- Pg. 64 – small pondweed doesn't show signs of recovery yet. The frequency of this species in 2010 (year of whole-lake treatment) is not statistically or ecologically different than that found in 2015. Both of these are very significantly different than the frequency of this species found in 2006. Good point. I will revise this section. Yes, as discussed in the previous comments, this is the largest concern at this time as *P. pusillus* was one of the most dominant native plants in 2006, and as of 2016 has shown no indication of recovery.
- Pg. 70 – write out acid equivalent before the acronym (ae) is used the first time. Thanks, change has been made.
- Pg. 71-72 – Suggest framing the discussion of whole-lake concentration and control efficacy and non-target impacts as generalizations. In general the descriptions based on the ranges of concentration hold across the state, but not in all cases. There are cases with higher concentrations where EWM doesn't appear to be effectively controlled and others where low concentrations of 2,4-D have led to fairly long-term control and extensive native impacts. I have added a clarifying sentence talking about the issues you bring forth. That being said, I continue to feel strongly that the predictability of control and selectivity are still much higher for whole-lake treatments than for spot treatments.

- Pg. 84 – I'm not sure that having more than 9 pieces of wood/mile is more than many other lakes in this part of the state. This includes any piece of wood > 2 inches diameter. It might be more appropriate to say that there are other lakes in the area that also have severely reduced amounts of coarse wood present, when compared to undeveloped lakes. The phrasing of this statement has been changed.
- Include the methods for assessing the coarse wood in the lake. The methods for this survey are included within the Coarse Woody Habitat section, but we will include the methods within the Methods Section.

Recommendations Comments

- It appears that they are proposing a whole-lake herbicide treatment concentration that is approximately double the concentration used in the successful 2010 treatment. Why so high? Based on y-intercept of half-life analysis, big Sand's 2010 treatment likely started off at 0.205 ppm ae. But with a half-life of only 11 days, the 0.7 DAT ave concentration was 0.169 ppm ae.
- Where did the 70% EWM reduction success criteria come from? It seems that on most northern Wisconsin lakes we see higher levels of efficacy than this in whole-lake treatments (especially if the target concentration will be between 275-375 ppb). The

70% goal aligns with what is listed on the large-scale worksheet (Form 3200-4a). After considering your comment, the goal has been adjusted to being from the *year before the treatment* to the *year after the treatment*. We agree that there will likely be a higher reduction in *year before the treatment* to *year of the treatment*. We have added more clarity in this section.

- What happens if their success criteria for a whole-lake treatment are not met? Hand-harvesting efforts are mentioned as a potential activity following a whole-lake treatment. What would the trigger be to conduct this sort of management? These thoughts are included within the end of the relevant implementation plan goal. However, the appropriate implementation triggers and success criteria for these actions would need to be developed through an updated lake management planning effort.

Comments from Jordan Petchenik (WDNR NR Research Scientist)

- Pg 6-7 – Pleased that Onterra noted that a 60% response rate is a standard benchmark for statistical projections, but they did not include the implications of their 35% return rate. Below is what Onterra included for the Eagle River Plan – they need do so here:

- *Due to the low response rate, the following survey results should not be interpreted as being statistically representative of the population. At best, the results may indicate possible trends and opinions about stakeholder perceptions of the Eagle River Chain of Lakes, but cannot be stated with any statistical confidence.*

Thank you, this disclaimer has been added.

- Also, please have Onterra review the report for misuse of the word "majority" (pg 7 for example). Majority is typically defined as more than one-half, but it's being defined here as the largest response. In the latter case, the correct interpretation would be "mode," meaning the most frequent response. Thank you for the clarification. This has been corrected.

Comments from Steve Gilbert (WDNR Fisheries NR Region Team Supervisor)

- Page 80 Regulations and management. Onterra will have to update this section in their reports since as of 2015 we no longer use the sliding bag limit system to control angler harvest of walleye. There is now a three fish bag limit ceded territory wide and new base regulations for many waters including Big Sand. As of 2015, the walleye regulation on Big Sand is a 15 inch minimum with a 20 to 24" protected slot and a three bag with only one fish over 24". This will also have to be fixed in table 3.5-2. I updated the Regulations paragraph and Table 3.5-2 to include the current fishing regs for Big Sand.

- Table 3.5-3. All the walleye fingerlings, other than those from the last three stocking events, can be considered small fingerlings. Updated the stocking table

- Pg 85 …the WDNR fisheries biologist believes that unsuccessful recruitment (natural or from stocked fish) has kept…included the (natural or from stocked fish) words

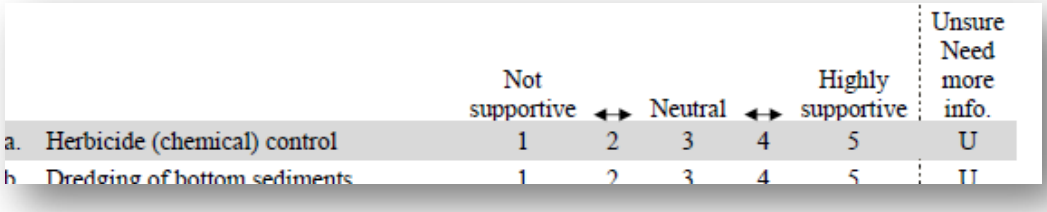
Comments from Kevin Gauthier (WDNR Water Resources Management Specialist)

- Page 8. Q13 and Q14 are the same graph? Yes, thanks. This has been corrected.
- Page 84. 3rd Par. Last Sentence. This is more than…. What is the purpose of this sentence – almost implies that the amount of wood in Big Sand is a good amount? In conjunction to SVE's comment, this statement has been rephrased.
- Page 91. Active Mgmt Strategy. Why was 15% chosen? I couldn't find any language on how and why this measurement was chosen? You and I discussed the rationale for defining a 15% threshold on 11/21/2016. Additional text has been added to the relevant implementation plan section, as we suspect is your desired outcome. As a recap of our conversation, many folks around the state are using 10% as a threshold. As now explained in the *Background on Herbicide Application Strategy Subsection* of this report, the 10% trigger has basis in WDNR administrative code even though that was likely not its original intent. However, WDNR has used 10% in various subsequent grant language and lake management planning guidance. There is also some mathematic rational for using 10% as well (also discussed in plan). Is it ecologically or human use driven – this does make a difference. Please see EWM LTT slides that are attached also as reference from a 10 year DNR EWM study of managed and unmanaged lakes in northern WI – would be glad to discuss these slides and their ecological relevance to Big Sand Lake Ecology, including EWM. It most certainly makes a difference – if the BSLPOA wanted to alleviate nuisance conditions caused by EWM, they would have implemented those strategies in already. They have chosen to absorb some of the losses in ecosystem services they have been dealing with until their trigger has been met. And discussions of the EWM LTT data resulted in them chose a trigger higher than the more-commonly used 10% to account for annual variations. As we discussed over the phone, they also discussed a 2-year consecutive >10% trigger but though that a 1-year 15% trigger would be more clear-cut.

- Were emergent/floating leaved plant communities mapped in other years than 2014? If so, please provide the maps and comparisons. No, emergent and floating-leaf community mapping data are only available from 2014.
- What were rake fullness avg's from the FQI's – Is there any indication of reduced abundance/rake fullness during 2007-2014? I will include this within the report. In summary, the littoral occurrence of vegetation was approximately 89% in 2006, 90% in 2010, 76% in 2011, 84% in 2014, 84% in 2015, and 81% in 2016. TRF data were not recorded during the 2006 survey, but data from the 2010-2016 surveys are now displayed in the report.
- Fig's 3.4-4 and 3.4-5. Show comparisons of FOO of all species during PI years and note any significant differences, particularly between 2006 and 2015, regardless of how low the FOO might be. This figure has been updated to show occurrences of all species recorded in the 2006-2016 surveys.

Comments from BSLPOA Planning Committee

- Page 4 - 1st Paragraph. WDNR and WTSI should be spelled out as first time used in document. Change has been made.
- Page 4 - Lake at a Glance section. Shoreline complexity is not defined or explained in the plan as far as I could find. It's a little hard to find in the document, as it is not discussed until page 55.
- Page 5 - 2nd Paragraph. Suggest adding a comma to the sentence To reflect the success and limitations learned, the BSLPOA...Change has been made
- Page 6 - 6th Paragraph. Vials County, and LLPLD should be Vilas County, and BSLPOA. Change has been made.
- Page 8 - Charts. 2nd chart on page is the same as Chart for Question 13.Change has been made
- Page 9 - Legend not complete for the top chart. There is no label for the 4 or 2 option due to the way the question was asked, see below:



	Not supportive	↔	Neutral	↔	Highly supportive	Unsure Need more info.
a. Herbicide (chemical) control	1	2	3	4	5	U
b. Dredging of bottom sediments	1	2	3	4	5	U

- Page 12 - Internal Nutrient Loading. Certain bacteria forms commonly found in nature will release stored phosphorus in under anaerobic conditions.
- Page 17/18 - More detail should be included for near-bottom sample location i.e., what depth and if in stratified zone. Clarification has been made.
- Page 19 - 1st Paragraph. 3rd sentence should begin with "As" not "A". Change has been made.
- Page 30 - Big Sand Watershed. Technically, Smoky Lake is in watershed but typically water is not transferred from Smoky to Big Sand. Referring to Smokey Lake as upstream may be confusing to readers. Clarification has been made. If advanced modeling were to be conducted on Big Sand Lake's watershed in the future, it may be important to investigate this concept more.

Comments from Joe Robinson

1. On Page 4 (Lake at a Glance table) & Page 5 (last paragraph), the 2016 point intercept study is not factored in. Updated
2. On Page 58, 2nd paragraph, 4th line, remove first "was" from: However, no voucher specimen was for curly-leaf pondweed was submitted. Removed
3. On Page 58, 4th paragraph, 2nd line, remove "the" from: The 2016 data indicate that "the". Removed
4. On Page 58, 5th paragraph, 4th line, words appear to be missing: Of the 623 point-intercept sampling locations that " " or shallower. Fixed

5. On Page 61, 2nd paragraph, 6th line, replace "not" with "now". Fixed
6. On Page 63, 2nd & 3rd paragraphs, sentences are repeated; Since 2010,the occurrence... Updated
7. On Page 64, 1st paragraph, 1st line, "In 2011 and 2014, the occurrence of small pondweed was not statistically different from 2011"; the second 2011 I think should be should be 2010. Fixed
8. On Page 74, 2nd paragraph, last line, is "to 0%" correct? In 2010, there were no PI points sampled that contained EWM only
9. On Page 81, 2nd paragraph, 8th line, "exceeds the comfort level of many riparians because it be approaching..."; change "be" to is". Fixed