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January 4, 2012

VIA UPS DELIVERY

The Secretary Federal Energy Regulatory Commission 888 First Street, N.E. Washington DC 20426

Re: Mosinee Hydroelectric Project, FERC Project No. 2207 Invasive Species 5-Year Comprehensive Report (2007 – 2011)

Dear Secretary:

In accordance with the monitoring plan for invasive species, Wausau Paper has completed a fifth year of surveillance. Enclosed please find an original and eight (8) copies of a comprehensive report summarizing and commenting on the surveillance work done for the 5-year period.

Three copies of the report have also been filed with the Chicago Regional FERC office.

Enclosed is a copy of a letter sent to the Wisconsin Department of Natural Resources (WDNR) and the U.S. Fish and Wildlife Service (USFW) requesting their comments on the report. As indicated in the request letter, their comments were due December 16, 2011. To date we have not received any comments from the USFW or from the WDNR. If there are any questions, please contact me at 715.692.3330.

Sincerely,

Farels (1/4/12)

James N. Pauls Manager of Environmental Services Wausau Paper Mills, LLC Mosinee Mill 100 Main Street Mosinee WI 54455

cc Ms. Peggy Harding, FERC Chicago Regional Office

# Wausaupaper

## VIA UPS DELIVERY

November 14, 2011

Ms. Louis Clemency U.S. Fish and Wildlife Service Green Bay ES Field Office 2661 Scott Tower Drive New Franken WI 54229

FERC Licensing Review Wisconsin Department of Natural Resources 101 South Webster Madison WI 54703

Mosinee Hydroelectric Project, FERC Project No. 2207, Invasive Species 5-Year RE: Comprehensive Report (2007 - 2011)

Dear Ms. Clemency and Sir/Madam:

Article 408 of the FERC license for Project No. 2207 requires that Wausau Paper (Wausau) prepare a plan to monitor invasive species for the Mosinee Hydroelectric Project. This plan was approved by the FERC on September 13, 2006

Enclosed is a copy of our Invasive Species 5-Year Comprehensive Report for the period 2007 -2011. Please review this report and provide us with comments on or before December 16, 2011.

I can be reached at 715.692.3330 or jpauls@wausaupaper.com.

Sincerely,

Jame N

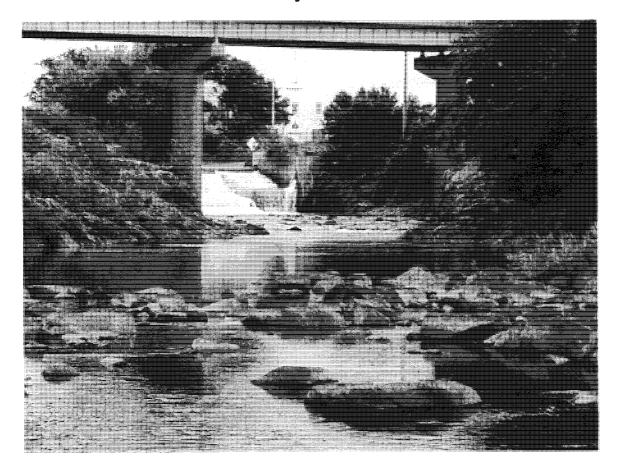
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James N. Pauls Manager of Environmental Services Wausau Paper Mosinee Mill

100 Main Street, Mosinee, WI 54455 tel 715 693 2111 fax 715 693 4723 www.wausaupaper.com

## INVASIVE SPECIES 5-YEAR COMPREHENSIVE REPORT (2007-2011)

FOR THE MOSINEE HYDROELECTRIC PROJECT MARATHON COUNTY, WISCONSIN FERC Project No. 2207



Submitted By Mosinee Paper Corporation

December 2011

Prepared By North American Hydro, Inc. P.O. Box 167 116 State Street Neshkoro, Wisconsin 54960 (920) 293-4628

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APPENDIX A – Purple Loosestrife Survey Results

APPENDIX B – Eurasian Water Milfoil Curly-leaf Pondweed Survey Results

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**APPENDIX D – Mosinee Reservoir Elevations** 

#### MOSINEE HYDROELECTRIC PROJECT

## 1.0 Summary

In 2007, a baseline meandered survey for purple loosestrife (*Lythrum salicaria*), Eurasian water milfoil (*Myriophyllum spicatum*), and curly-leaf pondweed (*Potamogeton crispus*) was performed at the Mosinee Hydroelectric Project in Marathon County, Wisconsin. Additional surveys were performed in 2008, 2009, 2010, and 2011. Point intercept surveys for Eurasian water milfoil (EWM) and curly-leaf pondweed (CLP) were performed concurrently with the meandered surveys in all survey years at the Project.

Survey results show that CLP was found growing in all waters within the survey limits except the power canal, bypass reach, tailrace, and Half-Moon Lake. After the 2007 survey, occurrences of CLP steadily declined in each of the subsequent survey years, and, in 2011, no CLP was found within the survey limits. At no time during the annual surveys did CLP create an impediment to navigating the survey boat.

EWM was found growing in all waters within the survey limits except the power canal, bypass reach, tailrace, and Half-Moon Lake. After the 2007 survey, occurrences of EWM steadily declined in each of the subsequent survey years, and, in 2011, EWM occurrences and coverage was at its lowest numbers within the survey limits. At no time during the annual surveys did EWM create an impediment to navigating the survey boat.

Purple loosestrife (PL) was found growing on the shorelines of all waters within the survey limits. In the 2007 baseline survey, it was found that colonies of PL were already well established in much of the survey area. In a few areas, many of the plants were either stunted or the foliage was completely brown. This was due to the presence of biological PL control in the form of Galerucella beetles (Cella). Although not required by the survey, notes were kept and compared on many of the Cella populations in order to help determine their effectiveness of controlling PL within the survey limits. During 2008, 2009, and 2010, Cella populations increased and spread throughout most of the survey limits while overall PL sightings and plant vigor decreased to its lowest point in 2010.

In 2011, Cella populations were still well distributed throughout the survey area, however, their numbers were greatly reduced from their peak in 2010 and appeared to be even less than during the 2007 survey. With Cella population at a low, PL sightings and plant vigor increased over that of 2010. Review of USGS flow records from the USGS gage 05398000 Wisconsin River at Rothschild, WI (about 1 mile upstream from the Mosinee survey limit) show that, on September 24, 2010, an annual peak streamflow of 52,700 cfs was recorded. This was the highest flow recorded at the gage since 1945. On April 11, 2011, the Rothschild gage data (provisional at the time of the writing of this report) shows a daily mean streamflow recording of 44,900 cfs. Both of these events would have happened when the majority of Cella would have been hibernating in the soils near the base of their host PL plants. It is probable that the two unusually high water events

inundated areas where Cella were hibernating and killed them. Since Cella presence was still detected throughout the survey area in 2011, it would be expected that their numbers will increase once again, provided river flows remain normal.

During the 2007, 2008, 2009, and 2010 surveys, a test was performed where PL plants found along a 1.2 mile stretch of river (N44° 48' 52.4" W89° 41' 30.7" to N44° 49' 49.7" W89° 41' 17.4" WGS84) that could easily be reached were pulled. If the roots were too deep to be pulled, the plants were cut off near the ground and removed. A few times during the survey, Cella presence was detected on a number of plants in the test area in the form of beetles, eggs, larvae, or a combination of the three different life stages. In these cases, the plants were usually not pulled or cut in order to promote Cella distribution. The test was performed in an effort to determine how effective of a control method manual removal would be in the survey areas where PL densities were lowest. When 5-year data from the test area was compared with data from other areas of the river where no manual removal was performed, differences in reduction of plant numbers and occurrences were negligible.

It should be noted that the survey crew observed PL plants growing on the river banks just upstream and outside of the survey limit. PL was also observed growing in roadside right-of-ways near the survey area. Some of these occurrences were considered Very Heavy (greater than 100 plants per 1000 sq. ft.), especially along the I-39 corridor where it crosses the Wisconsin River within the survey area and near the upstream limit. It is likely that PL seeds and plant fragments from these locations are transferring into the survey area and establishing new PL plants.

## 2.0 Methods

The upstream and downstream survey limits for PL, CLP, and EWM are shown on the following map labeled Survey Limits and were defined as follows. The waters and shoreline of the Wisconsin River and Mosinee Flowage from N44° 52' 48.4" W89° 38' 16.6" WGS84 approximately 1.0 miles upstream of the I-39 Bridge to the dam at the Mosinee Hydroelectric Project; the waters and shoreline of the power canal, bypass reach, and tailrace from the dam at the Mosinee Hydroelectric Project downstream to N44° 47' 10.6" W89° 42' 08.6" WGS84 approximately 0.5 miles downstream of the HWY 153 Bridge; the waters and shoreline of Half-Moon Lake and Cemetery Slough.

The following list shows the dates in which the annual surveys were performed: [Baseline survey] 7/16/2007 – 7/24/2007, and 8/9/2007 (follow-up visit) 7/14/2008 – 7/18/2008, and 7/21/2008 (follow-up visit) 7/14/2009 – 7/17/2009, 7/20/2009 – 7/21/2009, and 8/3/2009 (follow-up visit) 7/12/2010 – 7/17/2010 7/11/2011 – 7/16/2011

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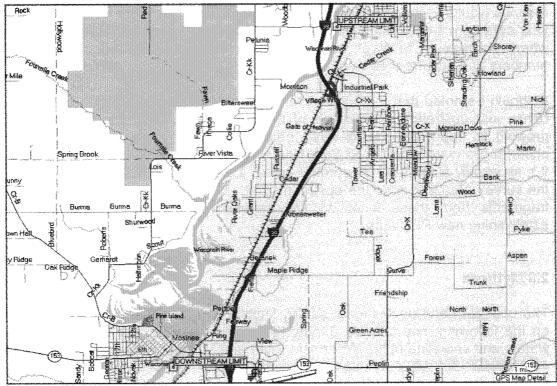
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## 2.1 Purple Loosestrife

In 2007, a baseline survey for PL was performed at the Mosinee project. Prior to the 2007 field survey, information on PL distribution and treatment was acquired from the Great Lakes Indian Fish and Wildlife Commission (GLIFWC) and the Wisconsin Department of Natural Resources (WIDNR). In addition, a vegetation survey conducted July 9-12, 2001 and included in Exhibit E of the Application For New License for the Mosinee Hydroelectric Project filed with the Federal Energy Regulatory Commission (FERC) on 12/7/2002 was analyzed to assist in the planning of the 2007 baseline PL survey.



SURVEY LIMITS

PL meander surveys were accomplished by scanning the shoreline and shallow areas of the project waters by two people from a boat. Certain areas were surveyed from land where it was not practical or possible to observe from the boat. These would include the area from the boat barrier to the dam and the head gates of the power canal, the bypass reach, the power canal, the tail race, and the western side of Cemetery Slough along County HWY B. High powered (15 x 50) image stabilization binoculars were used to facilitate the spotting of plants. When PL was identified, a handheld Garmin Global Positioning System (GPS) unit with Wide Area Augmentation System (WAAS) enabled was used to map the location.

Where practical, small occurrences of PL were pulled to help prevent further spread of the plants.

Maps and comparative results of these surveys are included in Appendix A in this report.

## 2.2 Eurasian Water Milfoil and Curly-leaf Pondweed

In 2007, a baseline survey for EWM and CLP was performed at the Mosinee project. Prior to the 2007 baseline field survey, information on EWM and CLP distribution and treatment was acquired from the GLIFWC and the WIDNR. In addition, a vegetation survey conducted July 9-12, 2001 and included in Exhibit E of the Application For New License for the Mosinee Hydroelectric Project filed with the FERC on 12/7/2002 was analyzed to assist in the planning of the 2007 baseline EWM and CLP survey.

EWM and CLP surveys were performed by visually scanning shallow areas of the project waters during the PL meander survey by two people from a boat. If a suspected plant was observed, a sample was grabbed and identified. During launch and recovery of the survey boat, boat ramps and parking areas were scanned for the presence of EWM and CLP plants. These would include River Park, Half-Moon Lake, and Chuck's Landing boat ramps. No EWM or CLP was found at any of these boat ramps during any of the annual surveys.

A point intercept survey for EWM and CLP was performed concurrently with the PL/EWM/CLP meander survey. A document received from the WIDNR entitled *Monitoring of Aquatic Macrophytes 2/13/06* was used as a basis for this survey. This document is included in Appendix C at the end of this survey. In November 2006, point intercept sampling locations were acquired from the WIDNR for the Mosinee Flowage (716 acres, 518 sample points), Half-Moon Lake (218 acres, 154 sample points), and Cemetery Slough (135 acres, 102 sample points). These locations were formatted and uploaded to a handheld Garmin GPS device with WAAS capability.

Besides the standard safety devices located in the survey boat, the following equipment was used; handheld Garmin GPS unit with WAAS enabled (with site locations already loaded), lake maps, field data sheets, 18-foot pole-mounted rake, push pole, depth finder, electric trolling motor, and polarized sunglasses.

When navigating to the sites using the GPS unit, the zoom level was set to 80 feet. Once the GPS navigation arrow covered the sample point, a rake was dropped to the bottom and dragged for about 2.5 feet. Weeds

retrieved were sorted for the presence of EWM and CLP. For each site,

the sample point number, latitude, longitude, depth, sediment type, EWM density, CLP density, and comments were recorded. If northern water milfoil was observed at a sample point, it was noted in the comments field.

For hard to reach sites where no sample could be taken (blocked by logs, blocked by fallen trees, etc.), the depth, sediment type, and EWM and CLP density fields were left blank and N/A (no access) was recorded in the comments field. In the case of inaccessible shallow sloughs with deep muck, the sediment type field was designated as muck even though the survey crew could not actually reach the sample point.

If a sample site produced no weeds, the depth was recorded and a notation was made in the comments field. After the depth of the deepest weed growth was established, for all deeper points, depth was recorded, but no samples were taken and a notation was made in the comments field.

Maps and comparative results of these surveys are included in Appendix B in this report.

## 2.3 Miscellaneous

Previous to initially launching into Mosinee Hydroelectric Project waters, the survey boat and survey equipment were treated with a bleach solution to prevent possible spread of invasive species from other locations. After the survey was completed and before launching into other waters, the survey boat and survey equipment were again treated with a bleach solution. Weeds were removed from boat and trailer after each recovery and before leaving the boat launch.

## 3.0 Observations

## 3.1 Purple Loosestrife

During the baseline meandered survey for PL in 2007, Cella beetles were discovered to be present at quite a number of PL occurrences. Upon closer inspection, it was noted that the beetles were partially defoliating and stunting the growth of a large amount of PL plants to the point where the flowers were not developing. At that point, the crew found it necessary to slow down, stay closer to shore, and look for additional plants by color and texture rather than just looking for the flowering seed heads. Damaged plants took on a yellow/green or brown color and were readily identified against the darker green surrounding vegetation. These conditions were found to be similar in the 2008, 2009, and 2010 surveys. Although Cella beetle damage was much less in 2011 than previous

years, the survey crew was still able to adequately identify PL plants by color and texture rather than just looking for flowering seed heads.



Galerucella Beetles on Purple Loosestrife (Light Damage - 2007)

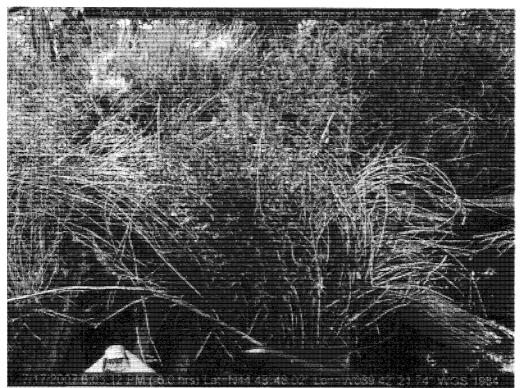
With the amount of PL plants being found at the Mosinee project, a faster and more generalized method of estimating the quantity and locations of plants would be needed in order to avoid an extremely large and unmanageable database of information. Rather than recording every single occurrence of PL, a density rating was assigned to all shoreline areas of the impoundment in the areas designated as Half-Moon Lake, Cemetery Slough, and the Mosinee Flowage. Values were assigned for the estimated amount of PL plants per 1000 square feet of area and are categorized as follows:

N (None) = 0 L (Light) = 1 - 5 plants M (Medium) = 6 - 25 plants H (Heavy) = 26 - 100 plants VH (Very Heavy) = >100 plants

Individual shoreline maps were created at the time of the surveys for each of the three impoundment areas showing PL locations and densities using this method. Although not required by the scope of these surveys, Cella beetle damage at key locations was also noted on the maps.

MOSINEE HYDROELECTRIC PROJECT

Invasive Species 5-Year Comprehensive Report (2007 – 2011)



Beetle Damage on Purple Loosestrife Against Darker Green Surrounding Vegetation (Heavy Damage - 2007)

As a general rule, Cella beetle damage recorded during the 5-year surveys was rated as follows:

None – There were no holes or "window paining" in the leaves of any PL plants. No Cella beetles or any life stages of the beetles were observed on any PL plants.

Light (or Minor) – There were a few holes and/or some "window paining" on the leaves of one or more PL plants. Overall damage was observed on less than 25% of total leaf area of any individual PL plant, however, many or even most of the PL plants may have exhibited no damage at all. Depending on time of year, one or more life stages of Cella beetle may have been observed on one or more plants, although it is more likely that no Cella would be observed. Light damage may indicate a recovering population or pioneering beetles that have recently migrated into the area.

Medium – Beetle damage was obvious. There were many holes and/or much "window paining" on the leaves of one or more PL plants. Overall damage was observed on between 25% and 50% of total leaf area of any individual PL plant, however, a number of the PL plants may have exhibited no damage at all. *Depending on time of year, it would not be unusual to see one or more life stages* 

of Cella beetle on one or more plants. Medium damage may indicate an established population that has not reached a critical mass where migration to find new food sources is a necessity, yet.

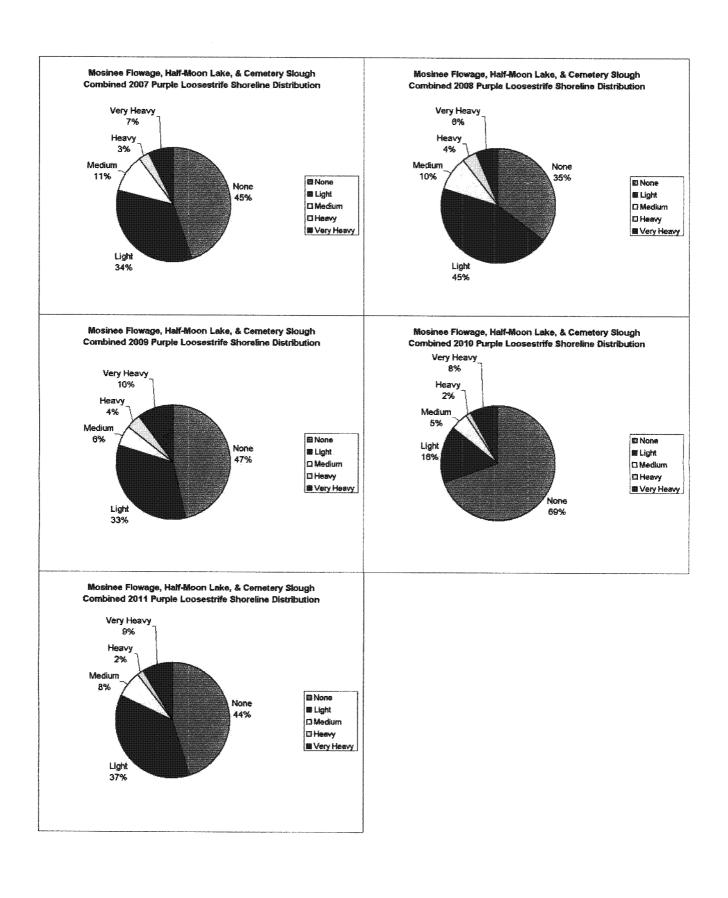
Heavy – Beetle damage was very obvious. There were many holes and/or much "window paining" on the leaves of most of the PL plants, although a few plants may have still remained untouched. Overall damage was 50% or greater of total leaf area of any individual PL plant. Some plants may be completely brown or defoliated. Depending on time of year, it would be likely to find one or more life stages of Cella beetle on one or more plants provided there were still enough green plants remaining to supply adequate food. Heavy damage may indicate that an established population has reached a critical mass and needs to begin migrating to find new food sources to sustain themselves.

For this 5-year report, distances of shorelines were measured and totaled for each of the PL density categories. The percentage of total shoreline was calculated for each category and is depicted in pie charts by impoundment water body and year. These charts are included in Appendix A of this report along with corresponding maps. Totals from the individual impoundment water bodies were combined to better illustrate the overall coverage and results are depicted in the pie charts below.

Comparing this data with Cella observations over the 5-year survey period shows that as Cella populations became more widely dispersed and they increased to their highest in 2010, PL densities decreased overall to its lowest in 2010. When Cella populations were reduced in 2011, PL densities increased overall. In all other parts of the survey area where individual occurrences of PL plants were recorded, such as the tailrace, power canal, by-pass reach, and river channel from the flowage to the upper survey limit, analysis of the data shows a close correlation with those of the impoundment water bodies.

Cella population reduction in the 2011 survey may be attributed to high water levels as a result of high river flows in the fall of 2010 and the spring of 2011. Cella beetles spend two extended periods of their life cycle, pupation and hibernation, buried within the soil and leaf litter beneath their host PL pants. The timing of these cycles depends on time of year and weather conditions and can vary from year to year. Generally, Cella beetles are in the pupae stage during mid-spring to mid-summer and begin to hibernate in mid-August and continue hibernating until early spring after the ground thaws. If areas beneath host plants become wet or inundated during these periods, the Cella beetles located there can die.

MOSINEE HYDROELECTRIC PROJECT

Invasive Species 5-Year Comprehensive Report (2007 – 2011) 

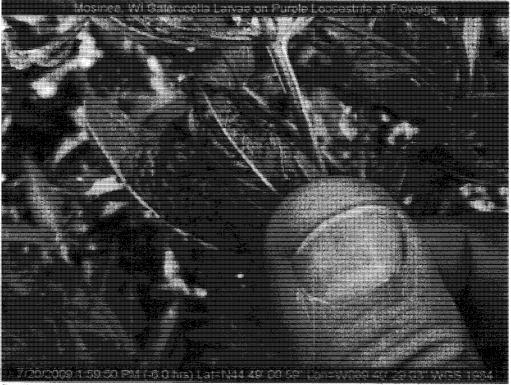
A review of flow records from the USGS gage 05398000 Wisconsin River at Rothschild, WI (about 1 mile upstream from the Mosinee project limit) shows that on September 24, 2010, an annual peak streamflow of 52,700 cfs was recorded. This was the highest flow recorded at the gage since 1945. On April 11, 2011, the Rothschild gage data (provisional at the time of the writing of this report) shows a daily mean streamflow recording of 44,900 cfs. The following table shows the dates of the ten highest annual peak streamflow records since 1945 (April 11, 2011 provisional data is not included).

	Annual
	Peak
	Streamflow
Date	(cfs)
9/24/2010	52700
4/12/1965	49200
3/31/1967	49200
6/14/1990	48300
9/27/1959	47000
9/28/1986	46700
6/21/1993	44400
3/31/1976	43800
5/7/1960	42900
5/3/1973	42000

USGS gage 5398000 ten highest annual peak streamflow records since 1945

In the 2008, 2009, and 2010, Cella beetle larvae were found on PL plants in a slough in the northeastern area of the Mosinee Flowage (N44° 49' 00.59" W89° 40'.03") along with other locations throughout the project area. During the 2011 survey, no larvae were observed within the survey area.

In 2009, two species of beetles (Galerucella pusilla and Galerucella calmariensis) were detected at the project. On 7/14/09, Galerucella c. beetles were observed mating at MOSN PL0155 (N44° 47' 34.19" W89° 41' 37.39"), and, the following day, new eggs were detected on the plants. Eggs were found on PL at a number of other locations during the 2009 survey, however, in 2010, no eggs were found at any location in the survey area. In 2011, Cella beetle eggs were once again found at a number of locations within the survey area.



Beetle Larvae and "Window Paining" Feeding on Purple Loosestrife at Mosinee Flowage (Heavy Damage - 2009)



Galerucella Calmariensis Beetles Mating on Purple Loosestrife at Mosinee Flowage (Medium Damage - 2009)



Galerucella Beetle Eggs on Purple Loosestrife at Mosinee Flowage (Light Damage - 2009)

In 2007 and 2008, over a stretch of 2.8 river miles (N44° 48' 52.4" W89° 41' 30.7" to N44° 50' 50.3" W89° 40' 00.7" WGS84), all PL plants that could easily be reached were pulled so that this control measure could be compared along this length of river in subsequent surveys. Due to time constraints during the 2009 and 2010 surveys, this area was reduced in length to 1.2 river miles (N44° 48' 52.4" W89° 41' 30.7" to N44° 49' 49.7" W89° 41' 17.4" WGS84), and all PL plants that could easily be reached were pulled. If the roots were too deep to be pulled, the plants were cut off near the ground and removed. Two occurrences in this zone (MOSN PL080 and PL081) were left untreated, because the plants were difficult to pull, beetle damage was heavy, Cella beetles were present, and/or Cella beetle egg clusters and larvae were observed on the plants. It was the survey crew's judgment that it would be best to leave these plants untouched to help promote Cella beetle development in future years. In 2011, all PL occurrences were recorded along this stretch of river, however, no plants were treated (pulled or cut) as in previous years, because the end of the control testing period had been reached.

This control method over the 1.2 mile stretch of river proved to be labor intensive and time consuming. Final analysis of the data shows that it had little effect on the reduction of PL populations. It was difficult to remove the entire root of plants using this method. If all of the roots were not removed, plants had the tendency to reappear in subsequent years.

Some reappeared after up to three years of remaining undetected.

Maps and comparative results of these surveys are included in Appendix A in this report.

## 3.2 Eurasian Water Milfoil and Curly-leaf Pondweed

EWM and CLP were documented at the Mosinee project during a 2007 baseline survey and subsequent surveys in 2008, 2009, 2010, and 2011. A meandered survey and a point intercept survey were performed in each of the survey years.

Survey results show that CLP was found growing in all waters within the survey limits except the power canal, bypass reach, tailrace, and Half-Moon Lake. After the 2007 survey, occurrences of CLP steadily declined in each of the subsequent survey years, and, in 2011, no CLP was found within the survey limits. At no time during the annual surveys did CLP create an impediment to navigating the survey boat.

In 2008, one occurrence of CLP was found on the downstream side of an island (N44° 52' 34.8" W89° 38' 21.8" WGS84) on the right side of the river upstream from the Mosinee Flowage and just a short distance downstream from the upstream Project limit. In 2009, 2010, and 2011, no CLP plants were found at this location.

EWM was found growing in all waters within the survey limits except the power canal, bypass reach, tailrace, and Half-Moon Lake. After the 2007 survey, occurrences of EWM steadily declined in each of the subsequent survey years, and, in 2011, EWM occurrences and coverage was at its lowest numbers within the survey limits. At no time during the annual surveys did EWM create an impediment to navigating the survey boat.

In 2008, one occurrence of EWM was located at the entry to a short slough (N44° 49' 52.5" W89° 41' 08.1" WGS84) on the left side of the Wisconsin River and another occurrence was detected in the inlet slough of Fourmile Creek (N44° 49' 56.5" W89° 41' 32.0" WGS84) on the right side of the river upstream from the Mosinee Flowage. In 2009, the number of EWM plants at both these locations decreased to where only a few plants were found, and, in 2010, no EWM plants were detected. In 2011, EWM was found again in the inlet slough of Fourmile Creek (N44° 49' 56.5" W89° 41' 32.0" WGS84) at a size and density estimated to be equal to or greater than that of the 2008 survey when it was first discovered.

EWM and CLP were not found in normal water depths greater than 5 feet anywhere within the survey area. This lack of weed growth may be due to the water being very turbid. Turbidity may also account for the low

densities of both varieties wherever they were located. During the 2009, 2010, and 2011 surveys, secchi disk readings were taken at locations throughout the project area to help determine if water clarity may be affecting EWM and CLP presence.

Maps and results of this survey are included in Appendix B in this report.

## 3.3 Miscellaneous

During the 2008 survey, the survey crew gathered between 100 – 150 Cella beetles from a heavy population on Half-Moon Lake with the intent of releasing them in back sloughs of the northeastern area of the Mosinee Flowage where high densities of PL were observed in 2007 and no beetles were detected. When the crew arrived at the potential release site, they discovered that beetle larvae existed on PL plants, so the collected beetles were released on an island in the Mosinee Flowage (N44° 48' 02.0" W89° 41' 48.0") where the population had been high in 2007 and diminished to very few in 2008. This release site was revisited during the 2009 survey, and beetle damage had increased over the 2008 survey. In 2010, beetle damage remained heavy and PL plant density decreased between 2009 and 2010. In 2011, beetle damage was light and plant density increased since 2010. This may be attributed to high water events of the fall of 2010 and spring of 2011 as discussed in the summary section of this report.

A photographic record of a Very Heavy occurrence of PL plants was taken of a small island in Half-Moon Lake each of the survey years. Due to its small size, density of PL, and presence of a high density of Cella beetle damage, it was thought that this location (MOSN PL100) would make a good subject for the photographic record. Unfortunately, the high water conditions in the fall of 2010 and spring of 2011 reduced the island to only a fraction of its original size and only a few PL plants remained. Photos of the island are included in Appendix A of this report.

The survey crew also noted that PL is abundant in the Mosinee area outside of the project boundary, particularly within the Interstate I-39 corridor which crosses the Wisconsin River near the upstream survey limit. It is likely that seeds and plant fragments from these locations are transferring into the survey area and establishing new PL plants. EWM and CLP have been reported to be found in the Wisconsin River both upstream and downstream of the Mosinee Hydroelectric Project.

Spotted knapweed was observed along roadways and in fields surrounding the Mosinee Project corridor, but no plants were observed within the survey boundary. Reed canary grass and Japanese honeysuckle have also been observed in the project area, but were not included in the scope of these surveys.

#### MOSINEE HYDROELECTRIC PROJECT

#### Invasive Species 5-Year Comprehensive Report (2007 – 2011)

#### 7 – 2011)

### 4.0 Recommendations

## 4.1 Purple Loosestrife

Biological control for PL is already in place at the Mosinee project in the form of Galerucella beetles. This has been proven as one of the most effective and economical methods of controlling the spread of PL. Considering the quantity of PL and the terrain in the survey area, chemical and/or mechanical control methods would be very difficult and, most likely, not as effective and is not recommended. Manual control methods of pulling and cutting small occurrences of PL plants were tested within the survey area during the 5-year survey. They were found to have little effect and are not recommended.

After comparing observations between the 2007, 2008, 2009, 2010, and 2011 surveys, it appears that Cella beetle populations continue to spread and are readily finding new occurrences of PL. Since there was such a drop off in Cella numbers in 2011, most likely from unusually high water conditions as described earlier in this report, it is recommended that a survey be performed in 2012 to help evaluate PL plant damage in order to determine if Cella populations are recovering as expected. The 2012 survey would be less intensive than those performed during the previous 5-year period and would require only checking on a few key locations in the original survey area where Cella populations have already been found and tracked. The survey crew would select from three to five locations to check Cella conditions in each of the following four areas: the waters and shoreline of the Wisconsin River and Mosinee Flowage from N44° 52' 48.4" W89° 38' 16.6" WGS84 approximately 1.0 miles upstream of the I-39 Bridge to the dam and headgates at the Mosinee Hydroelectric Project: the waters and shoreline of the power canal, bypass reach, and tailrace from the dam and headgates at the Mosinee Hydroelectric Project downstream to N44° 47' 10.6" W89° 42' 08.6" WGS84 approximately 0.5 miles downstream of the HWY 153 Bridge; the waters and shoreline of Half-Moon Lake; and the waters and shoreline of Cemetery Slough. Although it may be possible to determine Cella recovery by sampling fewer locations, sampling the number recommended above would give a better picture of stable or increasing populations throughout the entire survey limits.

A complete inventory of PL plants would not be necessary in order to determine Cella numbers and only PL at the selected sample locations would be recorded and summarized.

If results of the 2012 survey indicate that Cella populations are recovering, then less frequent monitoring would be recommended.

MOSINEE HYDROELECTRIC PROJECT

#### 4.2 Eurasian Water Milfoil and Curly-leaf Pondweed

Comparison of the 2007, 2008, 2009, 2010, and 2011 survey results indicate that quantities of CLP and EWM decreased year after year in the entire survey area with 2011 being the year when the least amount of plants were detected. In fact, CLP was not found anywhere within the survey area in 2011. Given the cyclic nature that CLP and EWM sometimes exhibits, it would not be unexpected to see quantities increase to levels that may equal the maximum amounts observed in the 2007 survey given the right conditions.

It is recommended that survey frequency for CLP and EWM be lengthened to once every five years, rather than annually, with the next survey being performed in 2016.

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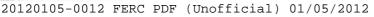
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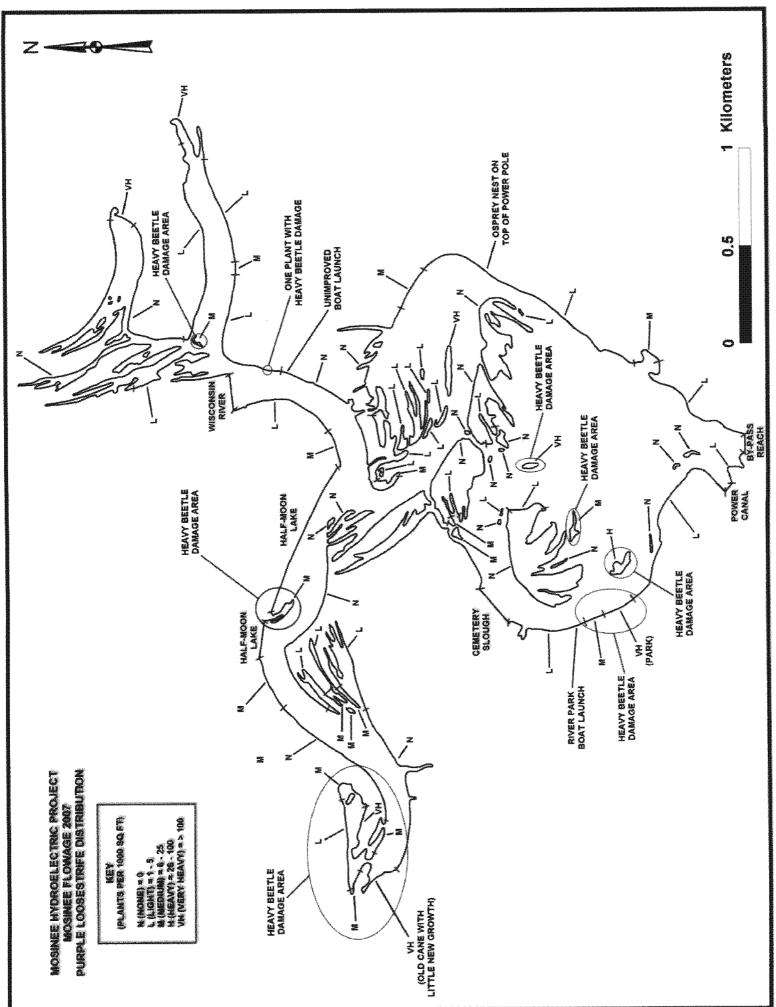
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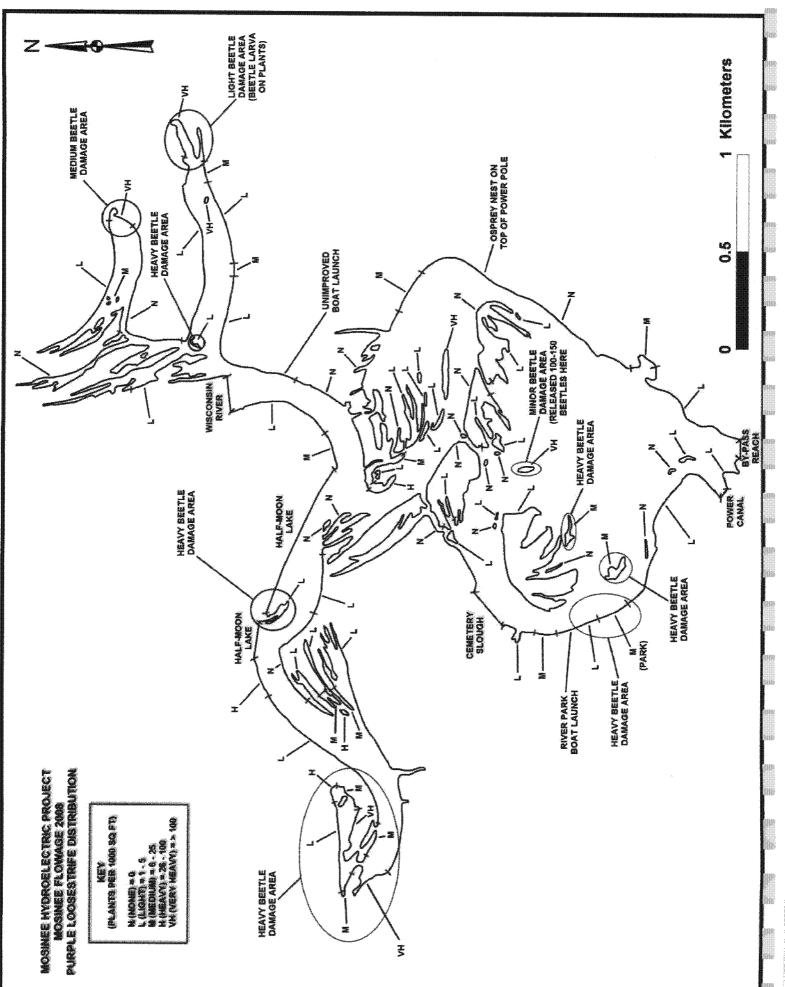
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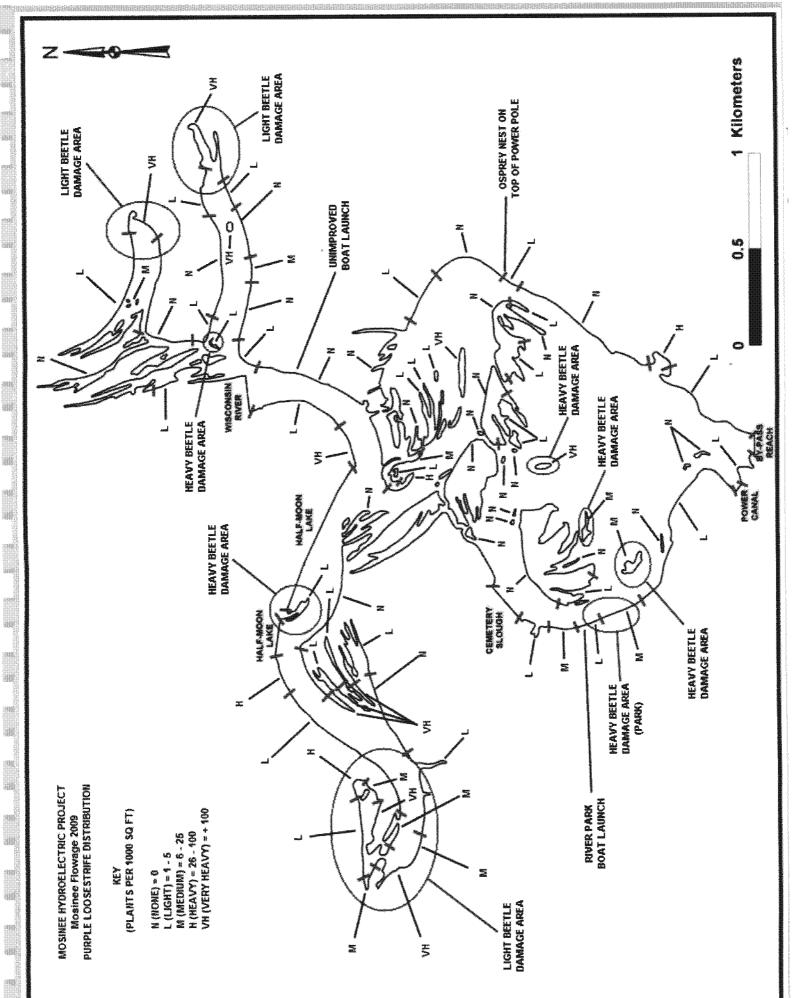
## APPENDIX A

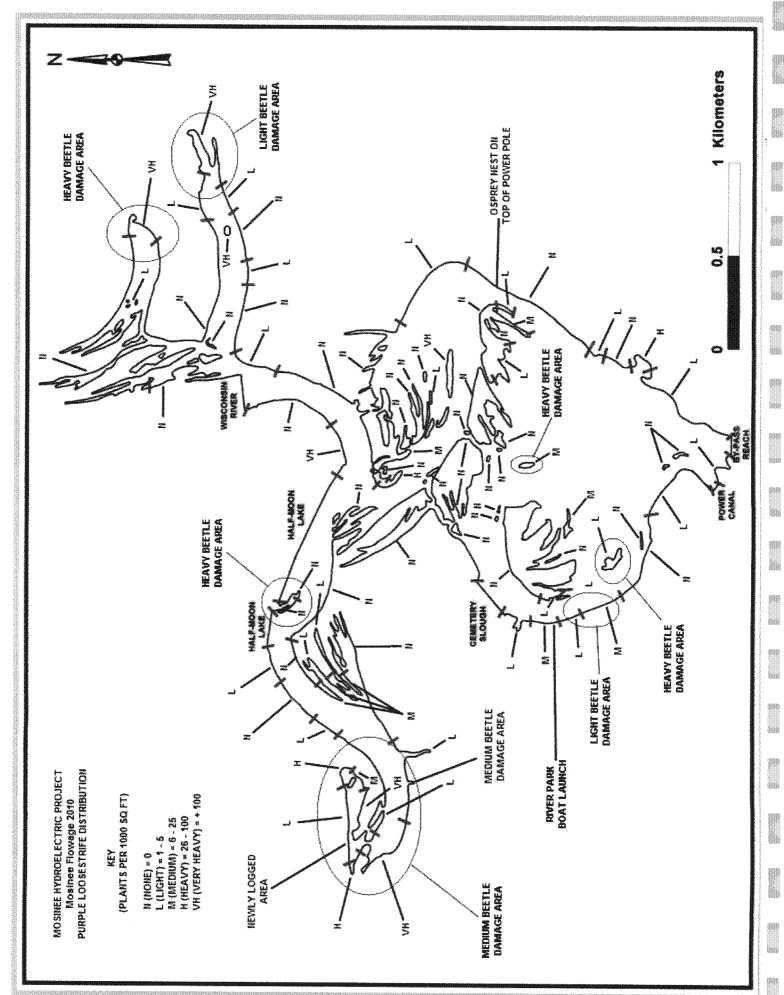
Purple Loosestrife Survey Results

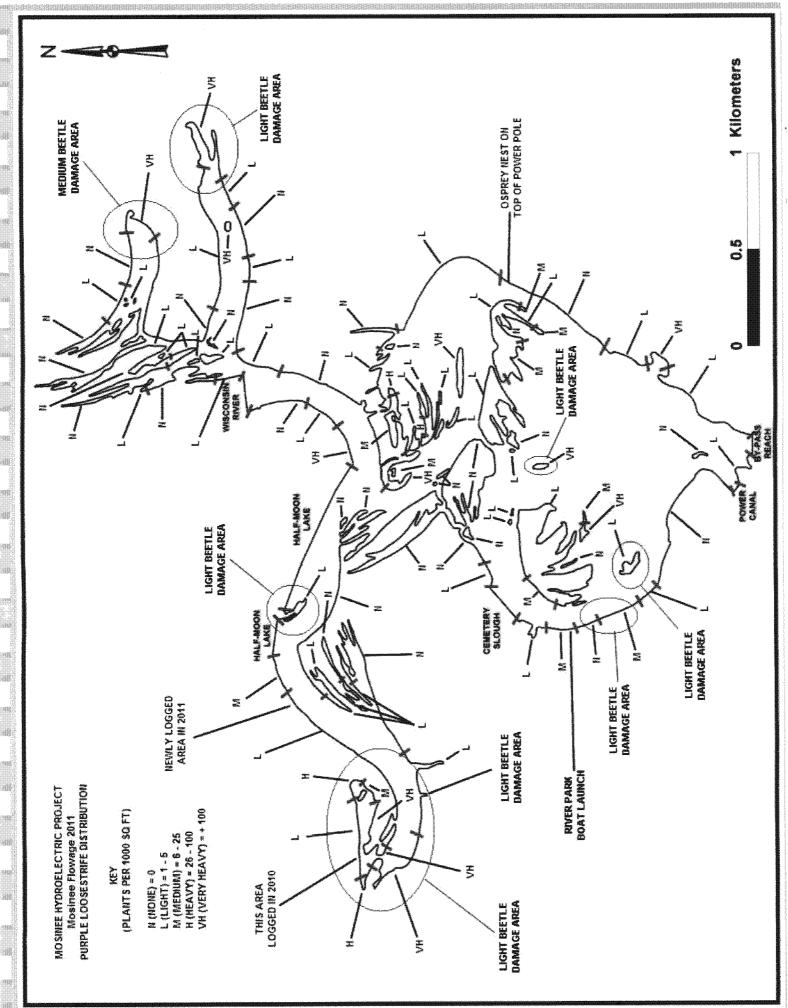




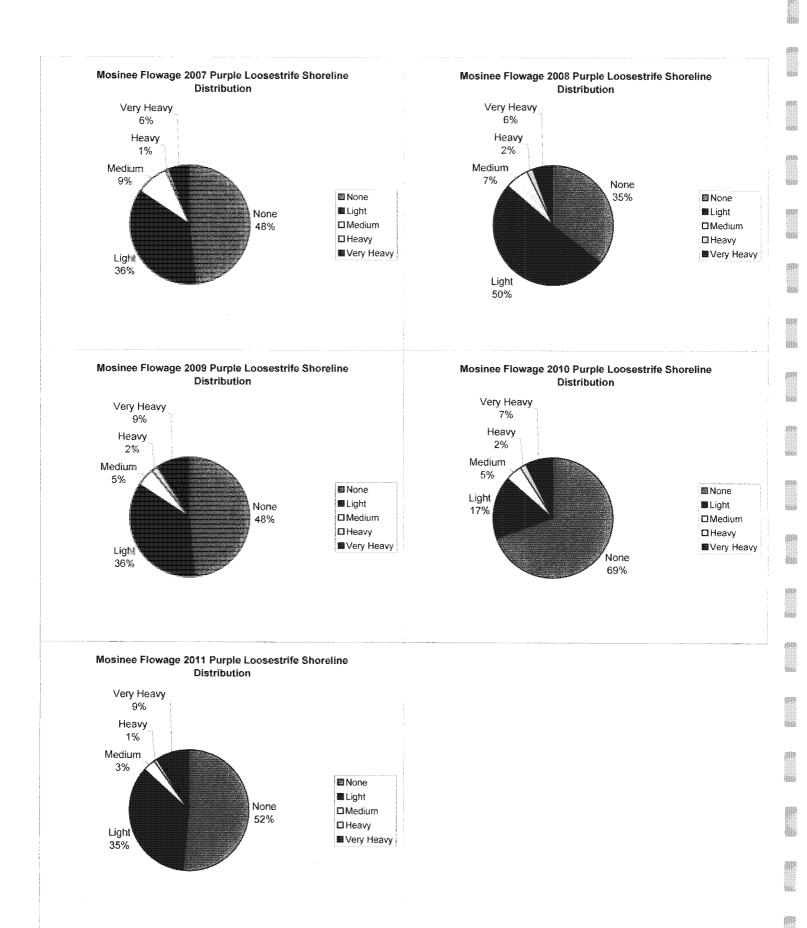


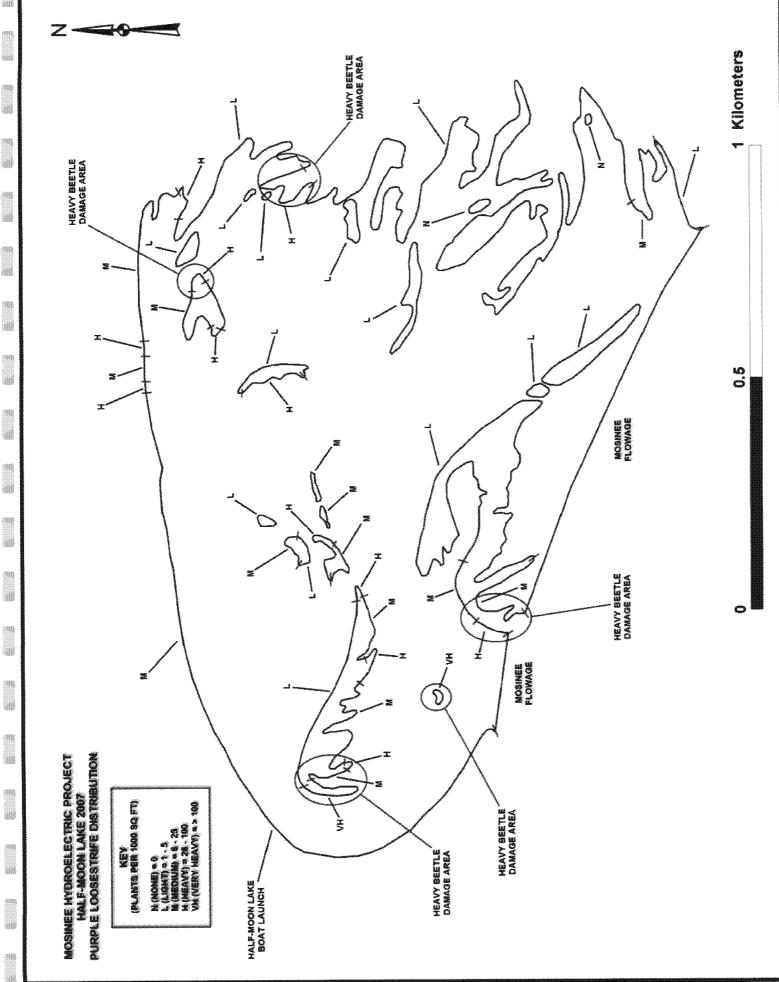


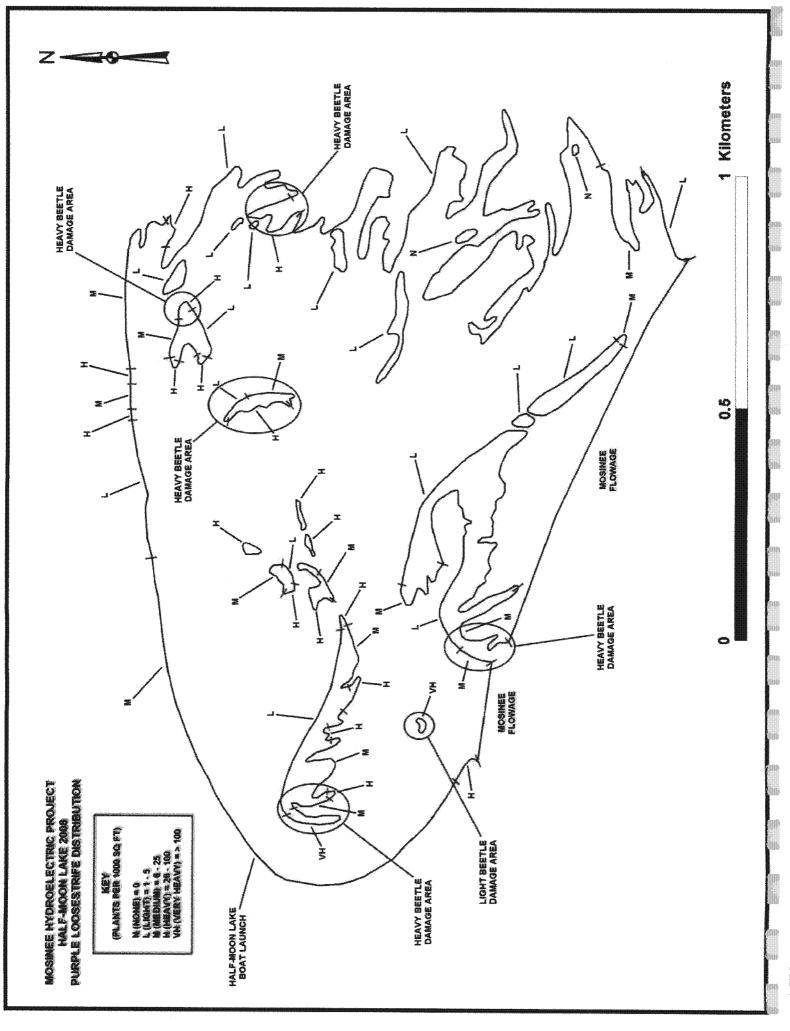


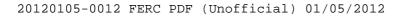


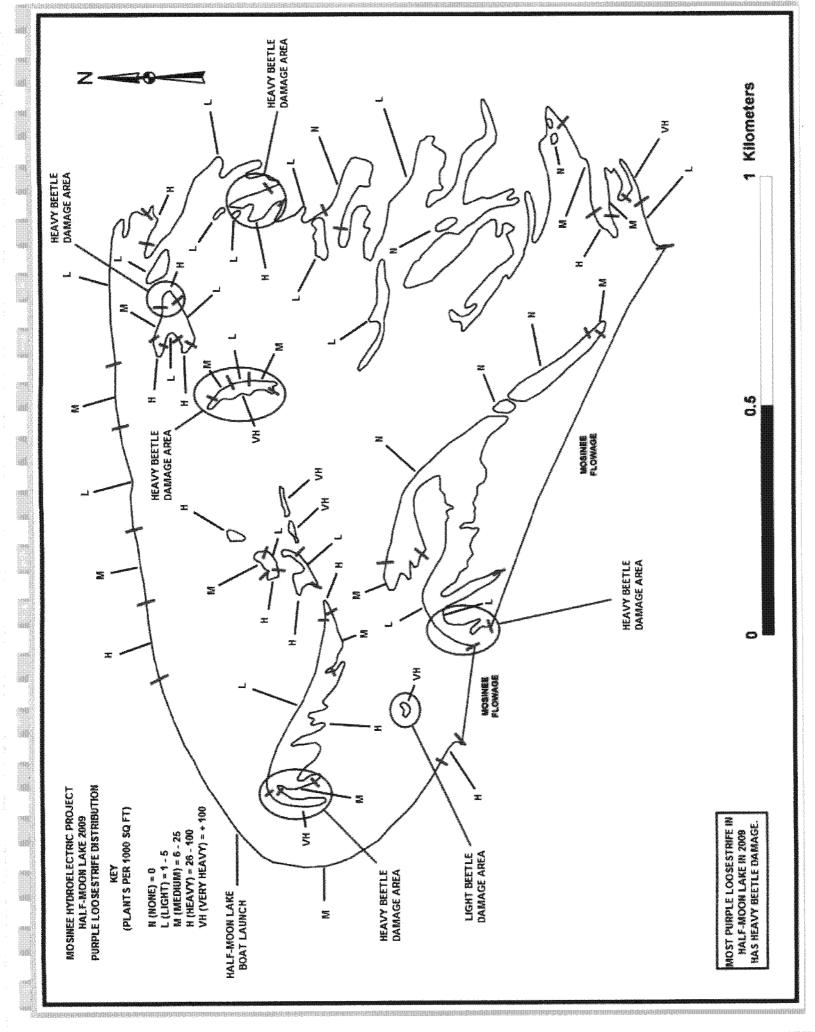
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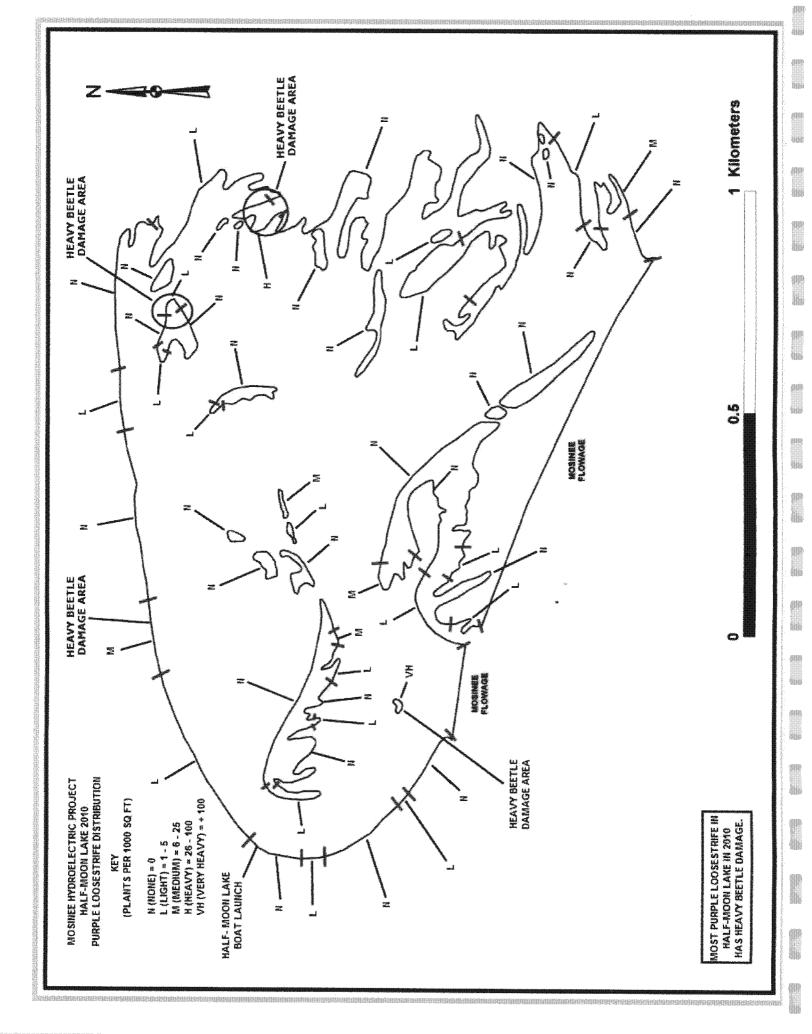


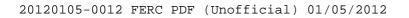


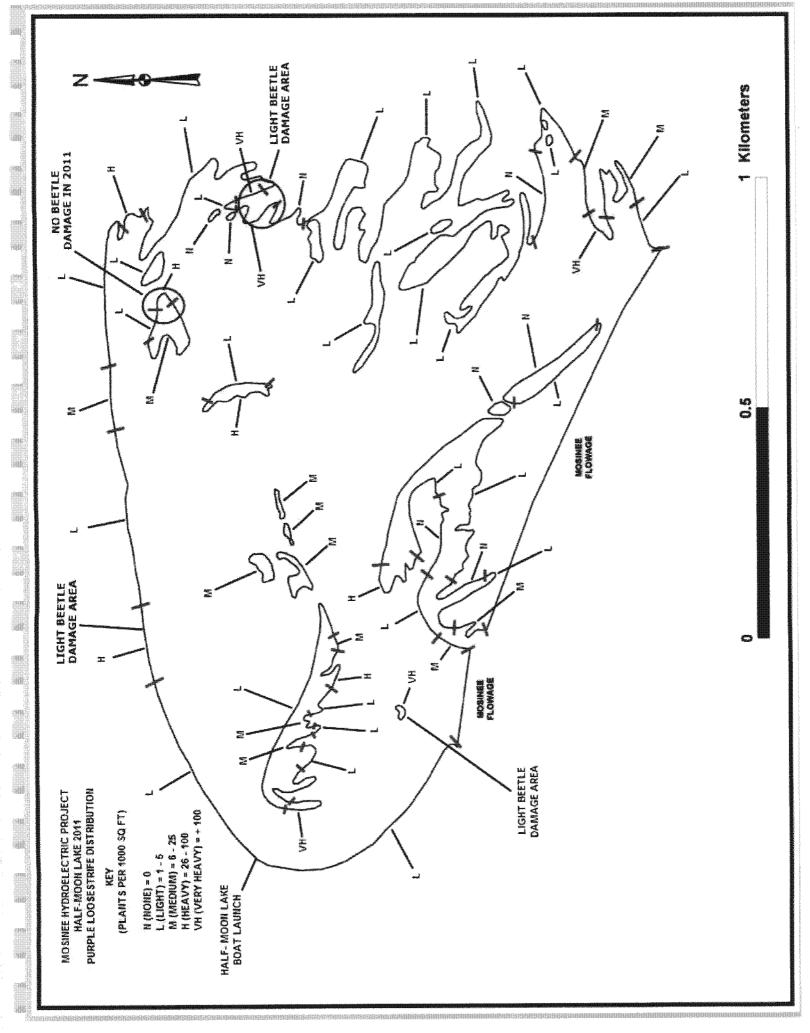


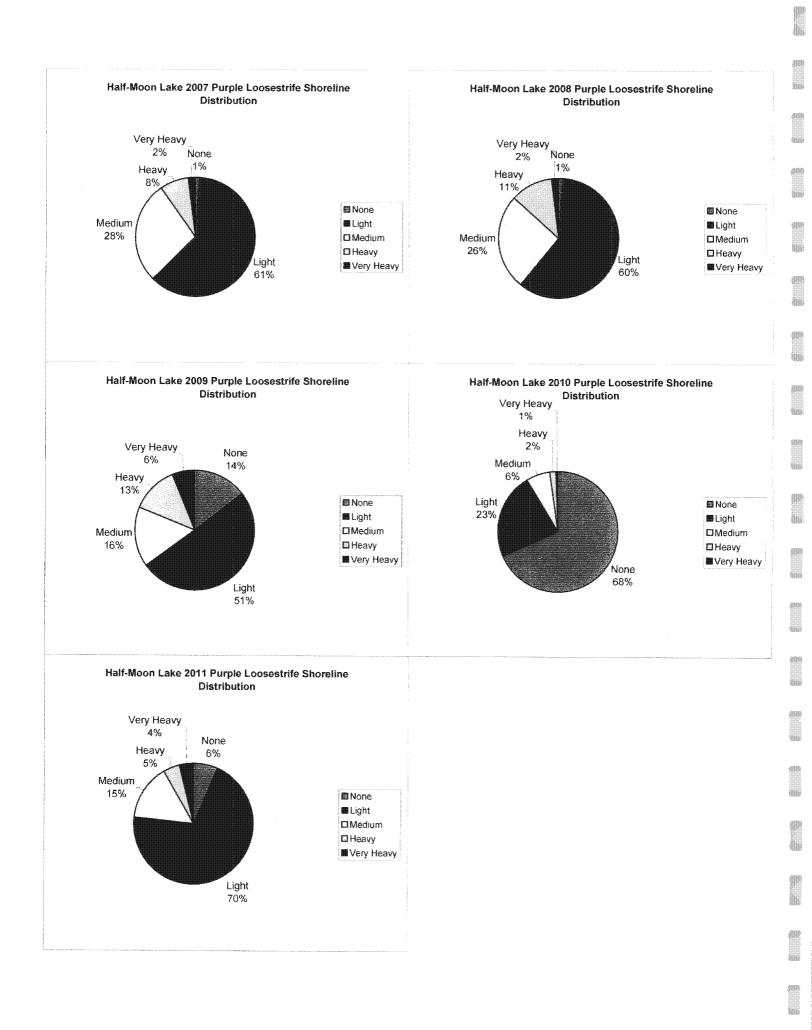


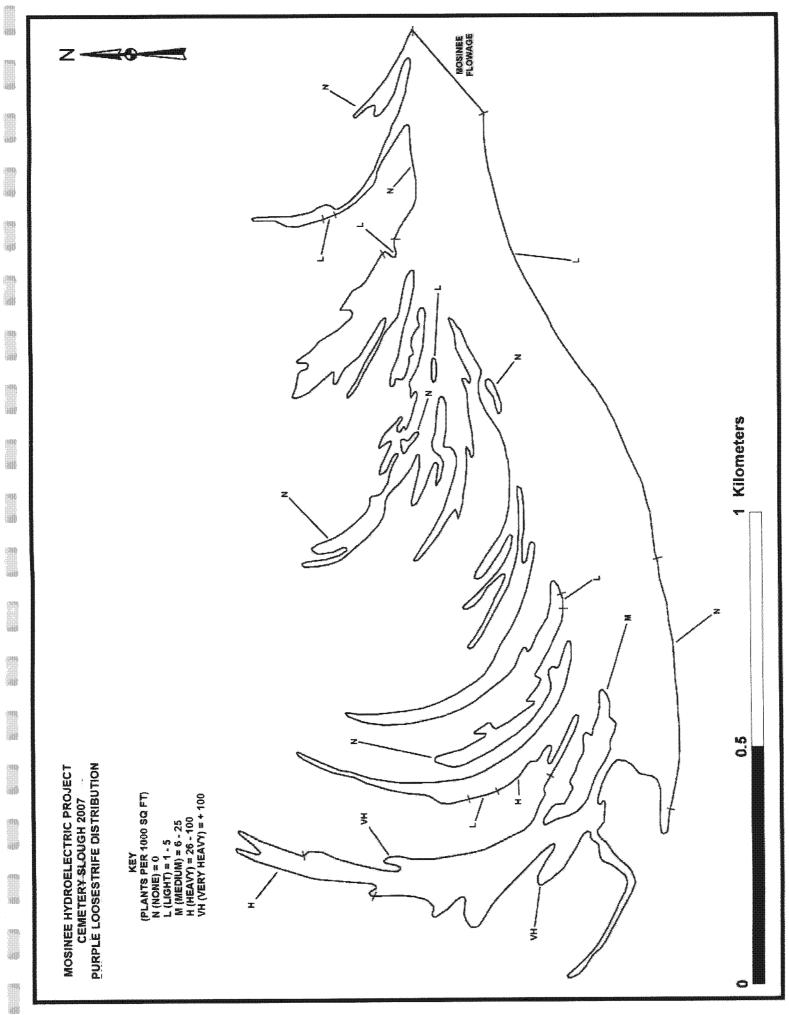


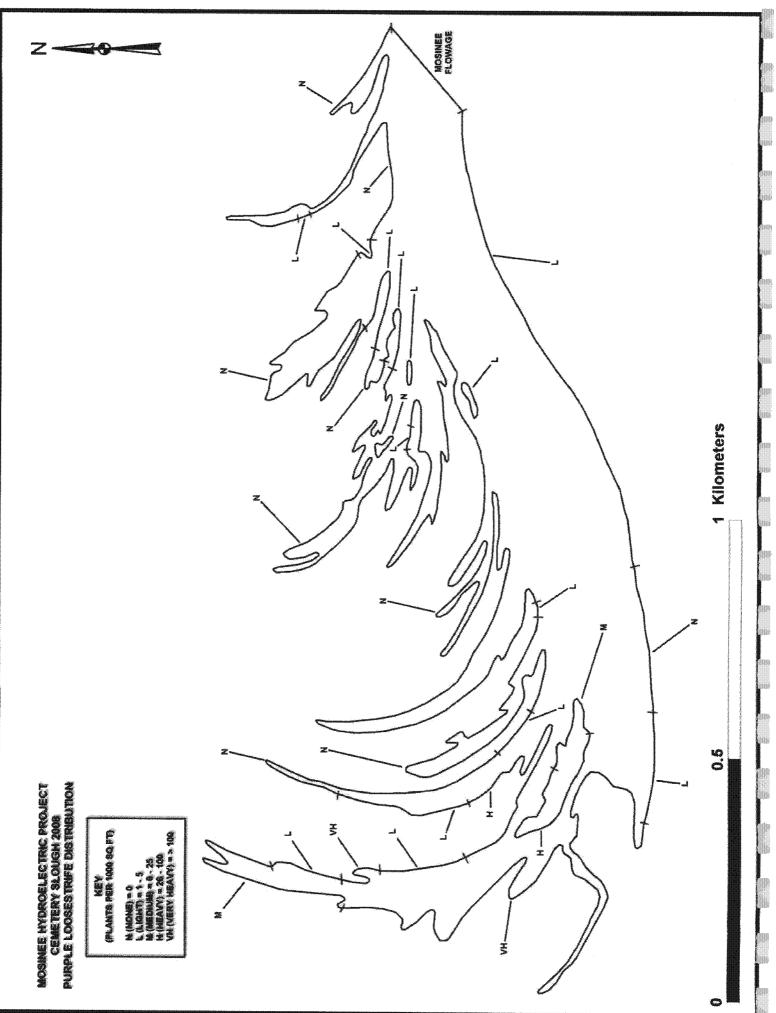


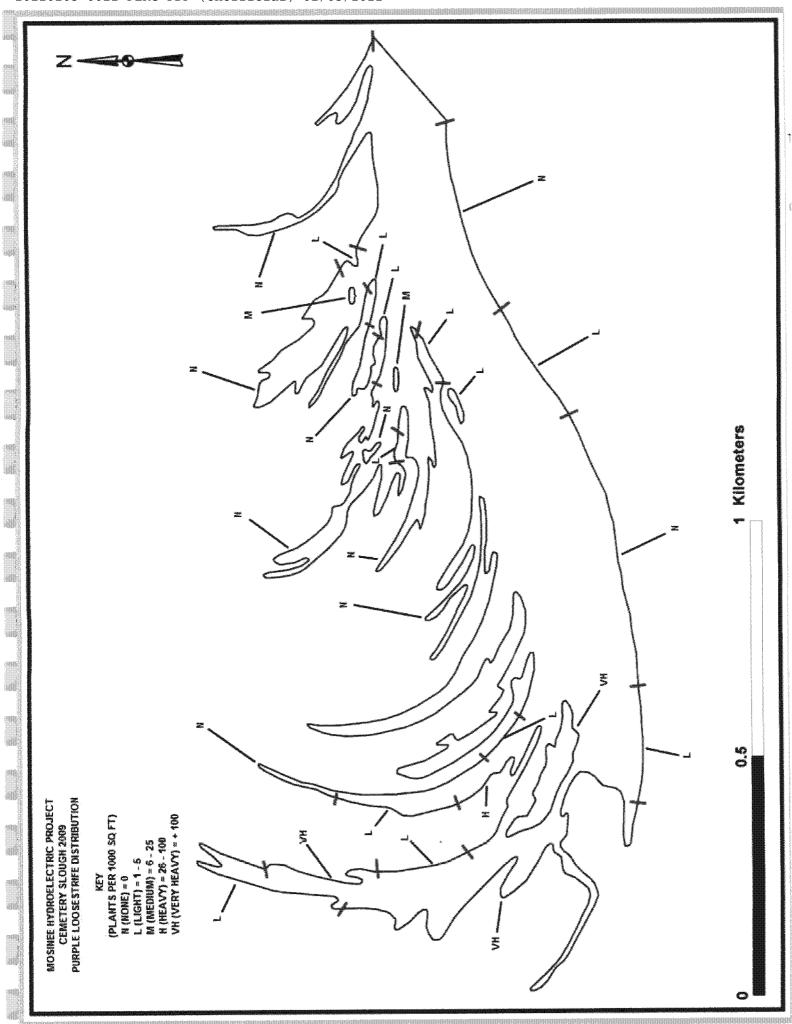


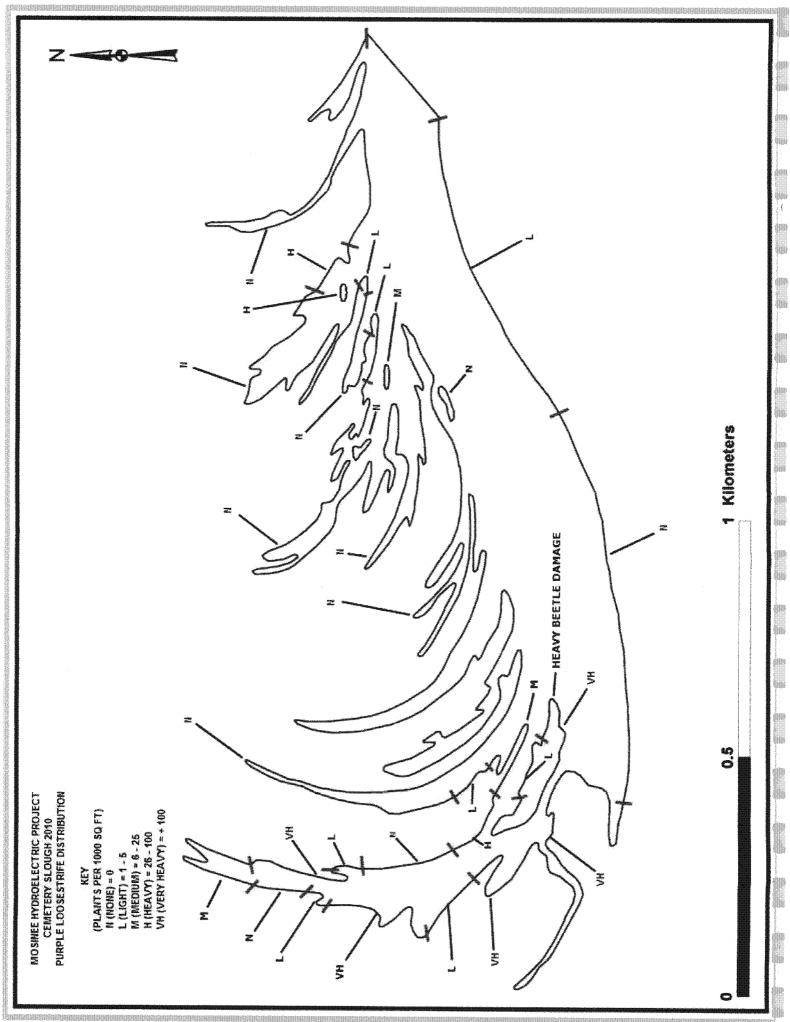


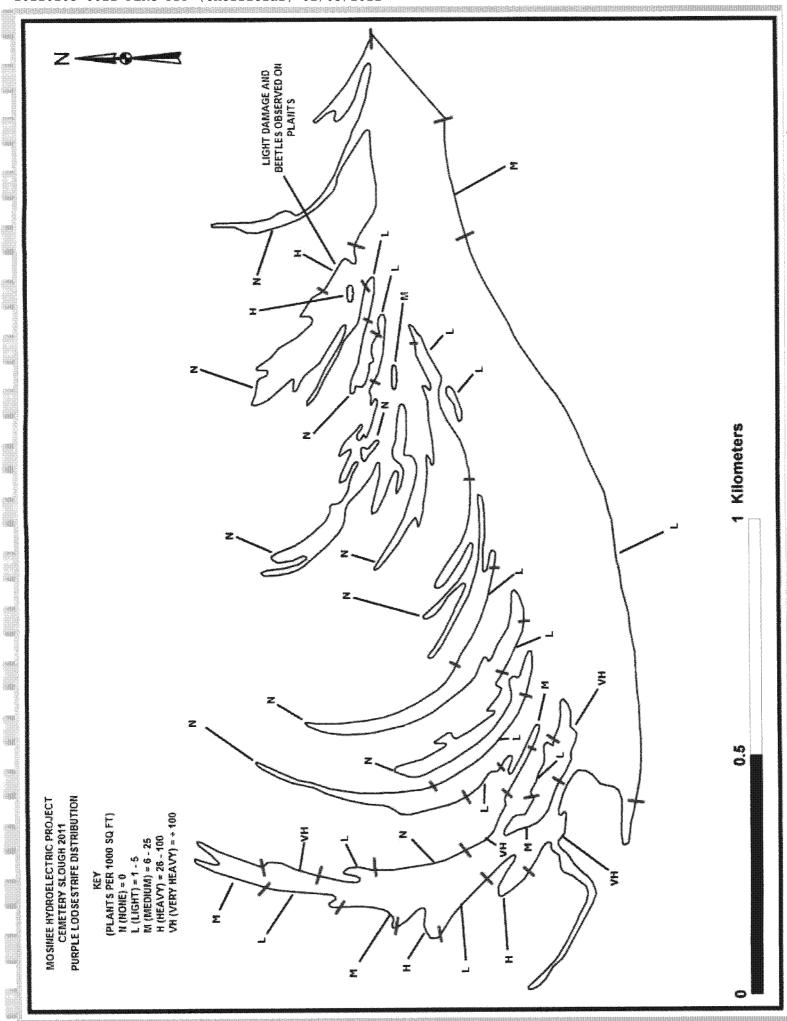


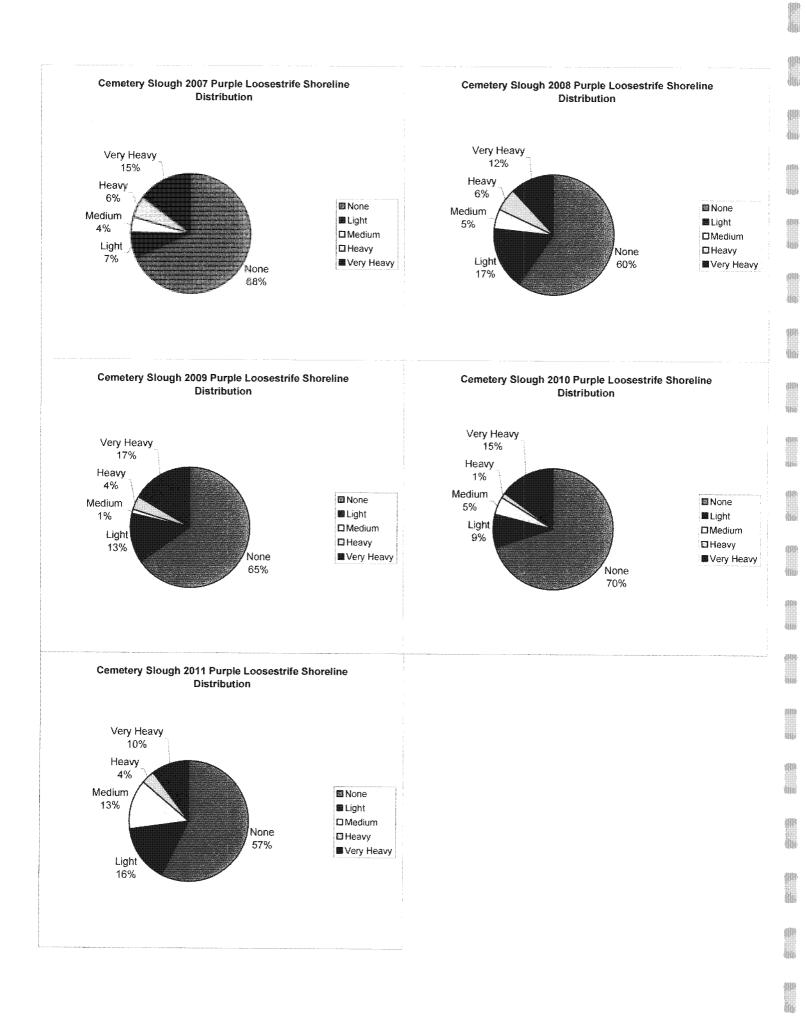












Purple Loosestrife Points Survey Report Project/Lakes: Mosinee/Mosinee Flowage, Half-moon Lake, and Cemetery Slough Date: 2007 thru 2011 WBIC: 1334900, 1435800, and 1435700 County: Marathon Crew: RAL/CTM Datum: WGS84

Point	Latitude	Longitude			
MOSN PL001	N44° 49.021'	W89° 41.724'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	2' - 6'	~100' x 50'	Heavy	N/A	N/A
2008	2' - 6'	~100' x 50'	Heavy	N/A	N/A
2009	2' - 6'	~70 -100 plants	Heavy	N/A	N/A
2010	2' - 6'	~70 -100 plants	Heavy	N/A	N/A
2011	2' - 4'	~70 -100 plants	Light	N/A	N/A

Point	Latitude	Longitude			
MOSN PL002	N44° 49.096'	W89° 41.878'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	3' - 6'	~50 Plants	Heavy	N/A	N/A
2008	3' - 6'	~50 Plants	Heavy	N/A	N/A
2009	3' - 6'	~50 Plants	Heavy	N/A	N/A
2010	3' - 6'	~50 Plants	Heavy	N/A	N/A
2011	2' - 4'	~50 Plants	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL003	N44° 49.040'	W89° 42.221'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	4' - 6'	3 Plants	None	N/A	N/A
2008	4' - 6'	3 Plants	None	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A

Point	Latitude	Longitude			
MOSN PL004	N44° 48.983'	W89° 42.514'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	3' -6'	6 Plants on 100' of shoreline	Heavy	N/A	N/A
2008	3' -6'	6 Plants on 100' of shoreline	Heavy	N/A	N/A
2009	3' -6'	10 Plants on 100' of shoreline	Heavy	N/A	N/A
2010	3' - 4'	10 Plants on 100' of shoreline	Heavy	N/A	N/A
2011	3' - 4'	7 Plants on 100' of shorelin∈	Light	N/A	N/A

Point	Latitude	Longitude			
MOSN PL005	N44° 48.800'	W89° 42.362'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	2' - 8'	West side of cove	Heavy	N/A	N/A
2008	2' - 8'	West side of cove	Heavy	N/A	N/A
2009	2' - 8'	West side of cove	Heavy	N/A	N/A
2010	2' - 5'	West side of cove	Heavy	N/A	N/A
2011	2' - 4'	West side of cove	Light	N/A	N/A

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Purple Loosestrife Points Survey Report Project/Lakes: Mosinee/Mosinee Flowage, Half-moon Lake, and Cemetery Slough Date: 2007 thru 2011 WBIC: 1334900, 1435800, and 1435700 County: Marathon Crew: RAL/CTM Datum: WGS84

Point	Latitude	Longitude			
MOSN PL006	N44° 48.103'	W89° 41.600'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	4'	1 Plant	None	Pulled	N/A
2008	1' - 3'	8 Plants	Heavy	Pulled	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A

Point	Latitude	Longitude			
MOSN PL007	N44° 48.025'	W89° 41.133'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	2' - 4'	3 Plants	None	Pulled	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	3'	2 plants	Medium	Pulled	N/A
2011	3'	1 plants	Medium	N/A	N/A

Point	Latitude	Longitude			
MOSN PL008	N44° 48.438'	W89° 41.802'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	1' - 5'	~25 Plants	Medium	N/A	N/A
2008	1' - 5'	~25 Plants	Medium	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	3'	1 Plant	Medium	N/A	N/A
2011	1' - 3'	10 Plants	Light	N/A	N/A

Point	Latitude	Longitude			
MOSN PL009	N44° 48.461'	W89° 42.106'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	2'	1 Plant	None	Pulled	N/A
2008	1'	1 Plant	Heavy	Pulled	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	
2011	N/A	N/A	N/A	N/A	N/A

Point	Latitude	Longitude				
MOSN PL010	N44° 48.293'	W89° 42.031'				
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	
2007	2'	2 Plants	Heavy	Pulled	N/A	
2008	N/A	N/A	N/A	N/A	N/A	
2009	N/A	N/A	N/A	N/A	N/A	
2010	N/A	N/A	N/A	N/A	N/A	
2011	N/A	N/A	N/A	N/A	N/A	

Point	Latitude	Longitude			
MOSN PL011	N44° 48.622'	W89° 42.674'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	2' - 3'	5 Plants	Light	N/A	N/A
2008	2' - 3'	5 Plants	Light	N/A	N/A
2009	2' - 3'	5 -10 Plants	Light	N/A	N/A
2010	1' - 3'	4 -6 Plants	Heavy	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A

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Purple Loosestrife Points Survey Report Project/Lakes: Mosinee/Mosinee Flowage, Half-moon Lake, and Cemetery Slough Date: 2007 thru 2011 WBIC: 1334900, 1435800, and 1435700 County: Marathon Crew: RAL/CTM Datum: WGS84

Point	Latitude	Longitude				
MOSN PL012	N44° 48.496'	W89° 43.352'				
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	
2007	2' - 9'	>1000 Plants	Heavy	N/A	N/A	
2008	2' - 9'	>1000 Plants	Heavy	N/A	N/A	
2009	2' - 9'	>1000 Plants	Light	N/A	N/A	
2010	2' - 9'	>1000 Plants	Medium	N/A	N/A	
2011	2' - 6'	>1000 Plants	Light	N/A	N/A	

Point	Latitude	Longitude			
MOSN PL013	N44° 48.222'	W89° 41.971'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	3'	1 Plant	Light	Pulled	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	2'	3'x1'	Heavy	Pulled	N/A
		2 plants			
2010	N/A	N/A	N/A	N/A	N/A
2011	2'	1 Plant	Light	N/A	N/A

Point	Latitude	Longitude			
MOSN PL014	N44° 48.388'	W89° 41.148'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	3'	4 Plants	Heavy	N/A	N/A
2008	3'	4 Plants	Heavy	N/A	N/A
2009	1'	4 Plants	Heavy	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	2' - 3'	3 Plants	Medium	N/A	N/A

Point	Latitude	Longitude			
MOSN PL015	N44° 49.142'	W89° 41.286'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	3' - 5'	2 Plants	None	Pulled	N/A
2008	1' - 2'	3 Plants	Heavy	Pulled	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	2'	1 Plant	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL016	N44° 49.207'	W89° 41.669'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	2 ' - 5'	2 Plants	None	Pulled	N/A
2008	4' - 5'	2 Plants	Medium	Pulled	N/A
2009	2'	1 Plant	Light	Pulled	N/A
2010	2'	1 Plant	Heavy	Pulled	N/A
2011	3'	1 Plant	None	N/A	N/A

Point	Latitude	Longitude				
MOSN PL017	N44° 49.303'	W89° 41.689'		<b></b>		
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	
2007	4'	1 Plant	None	Pulled	N/A	
2008	N/A	N/A	N/A	N/A	N/A	
2009	N/A	N/A	N/A	N/A	N/A	
2010	6'	1 Plant	Light	Pulled	N/A	
2011	4'	1 Plant	None	N/A	N/A	

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Purple Loosestrife Points Survey Report Project/Lakes: Mosinee/Mosinee Flowage, Half-moon Lake, and Cemetery Slough Date: 2007 thru 2011 WBIC: 1334900, 1435800, and 1435700 County: Marathon Crew: RAL/CTM Datum: WGS84

Point	Latitude	Longitude			
MOSN PL018	N44° 49.436'	W89° 41.672'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	4' - 5'	2 Plants	None	Pulled	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	1'	6 Plants	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL019	N44° 49.635'	W89° 41.560'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	3' - 5'	2 Plants	None	Pulled	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A

Point	Latitude	Longitude			
MOSN PL020	N44° 49.716'	W89° 41.477'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	3' - 5'	6 Plants	Light	Pulled	N/A
2008	3'	1 Plant	Heavy	N/A	N/A
2009	1'- 4'	3 Plant	Heavy	Pulled	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	1' - 4'	5 Plants	Medium	N/A	N/A

Point	Latitude	Longitude			
MOSN PL021	N44° 49.832'	W89° 41.403'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	4'	1 Plant	None	Pulled	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A

Point	Latitude	Longitude				
MOSN PL022	N44° 49.848'	W89° 41.341'				
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	
2007	2' - 4'	2 Plants	None	Pulled	N/A	
2008	2' - 5'	5 Plants	Heavy	N/A	N/A	
2009	2' - 5'	3 Plants	Heavy	N/A	N/A	
2010	2' - 5'	3 Plants	Light/Medium	N/A		1.1
2011	2' - 5'	3 Plants	None	N/A	N/A	·····

Point	Latitude	Longitude				
MOSN PL023	N44° 50.074'	W89° 41.174'				
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	
2007	2' - 4'	4 Plants	None	Pulled	N/A	
2008	N/A	N/A	N/A	N/A	N/A	
2009	N/A	N/A	N/A	N/A	N/A	
2010	2' - 4'	2 Plants	None	N/A	N/A	
2011	N/A	N/A	N/A	N/A	N/A	· · · · · · · · · · · · · · · · · · ·

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 Purple Loosestrife Points Survey Report Project/Lakes: Mosinee/Mosinee Flowage, Half-moon Lake, and Cemetery Slough Date: 2007 thru 2011 WBIC: 1334900, 1435800, and 1435700 County: Marathon Crew: RAL/CTM Datum: WGS84

Point	Latitude	Longitude			
MOSN PL024	N44° 50.157'	W89° 41.105'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	5'	1 Plant	None	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	5'	1 Plant	None	N/A	N/A
2011	1' - 3'	2 Plants	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL025	N44° 50.357'	W89° 40.957'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	6'	1 Plant	None	Pulled	N/A
2008	5'	1 Plant	None	Pulled	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	2'	1 Plant	None	N/A	N/A
2011	4'	1 Plant	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL026	N44° 50.454'	W89° 40.795'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	2' - 4'	6 Plants	None	Pulled	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	2' - 5'	6 Plants	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL027	N44° 50.589'	W89° 40.518'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	3' - 6'	2 Plants	None	Pulled	N/A
2008	3' - 4'	4 Plants	None	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	2'	1 Plant	None	N/A	N/A
2011	3' - 4'	3 Plants	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL028	N44° 50.655'	W89° 40.369'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	2' - 5'	6 Plants	None	Pulled	N/A
2008	2' - 5'	4 Plants	None	N/A	N/A
2009	2' - 3'	2 Plants	Medium	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	2' - 3'	9 Plants	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL029	N44° 50.683'	W89° 40.393'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	4' - 7'	1 - 2 Plants	Unknown	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A

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Point	Latitude	Longitude			
MOSN PL030	N44° 50.685'	W89° 40.248'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	6'	1 Plant	None	Pulled	N/A
2008	3'	1 Plant	Minor	N/A	N/A
2009	2'	1 Plant	Light	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A

Point	Latitude	Longitude				
MOSN PL031	N44° 50.751'	W89° 40.158'				
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	
2007	4' - 5'	3 Plants	None	Pulled	N/A	· · · · · · · · · · · · · · · · · · ·
2008	2'	1 Plant	Minor	N/A	N/A	···· · · · · · · · · · · · · · · · · ·
2009	2'	1 Plant	Light	N/A	N/A	· · ·
2010	N/A	N/A	N/A	N/A	N/A	
2011	2'	1 Plant	None	N/A	N/A	

Point	Latitude	Longitude			
MOSN PL032	N44° 50.841'	W89° 40.065'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	3' - 5'	3 Plants	None	Pulled	N/A
2008	2'	1 Plant	Minor	N/A	N/A
2009	2'	1 Plant	None	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	2' - 3'	3 Plants	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL033	N44° 50.911'	W89° 40.011'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	2' - 5'	10 Plants	None	N/A	N/A
2008	2' - 4'	5 Plants	None	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	1' - 2'	2 Plants	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL034	N44° 50.957'	W89° 39.986'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	2' - 5'	5 Plants	None	N/A	N/A
2008	2' - 3'	3 Plants	None	N/A	N/A
2009	3'	1 Plants	None	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A

Point	Latitude	Longitude			
MOSN PL035	N44° 50.997'	W89° 39.964'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	2' - 5'	5 Plants	None	N/A	N/A
2008	3'	1 Plant	None	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	1' - 3'	3 Plants	None	N/A	N/A

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Point	Latitude	Longitude			
MOSN PL036	N44° 51.092'	W89° 39.903'	.,		
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	5' - 6'	5 Plants	None	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	2' - 3'	5 Plants	None	N/A	PL036 and PL144 were grouped as a continuous site.
2011	1' - 3'	3 Plants	None	N/A	PL036 and PL144 were grouped as a continuous site.

Point	Latitude	Longitude			
MOSN PL037	N44° 51.345'	W89° 39.733'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	4'	1 Plant	None	N/A	N/A
2008	5'	1 Plant	None	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	4'	1 Plant	None	N/A	N/A
2011	1'	1 Plant	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL038	N44° 51.405'	W89° 39.693'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	6'	1 Plant	None	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	1'	1 Plant	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL039	N44° 51.460'	W89° 39.654'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	4' - 6'	3 Plants	None	N/A	N/A
2008	4'	1 Plant	None	N/A	N/A
2009	4'	2 Plant	None	N/A	N/A
2010	2' - 4'	5 Plant	None	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A

Point	Latitude	Longitude			
MOSN PL040	N44° 51.568'	W89° 39.591'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	6'	1 Plant	None	N/A	N/A
2008	6'	3 Plants	None	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	3'	1 Plant	None	N/A	N/A

Point	Latitude	Longitude				
MOSN PL041	N44° 51.623'	W89° 39.556'				
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	
2007	3' - 6'	2 Plants	None	N/A	N/A	
2008	3' - 5'	3 Plants	None	N/A	N/A	
2009	N/A	N/Ă	N/A	N/A	N/A	
2010	3'	1 Plant	None	N/A	N/A	
2011	2'	1 Plant	None	N/A	N/A	

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Point	Latitude	Longitude			
MOSN PL042	N44° 51.893'	W89° 39.243'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	3'	1 Plant	None	N/A	N/A
2008	3' - 5'	12 - 14 Plants	None	N/A	N/A
2009	3' - 5'	3 Plants	None	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	1' - 3'	10 Plants	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL043	N44° 51.999'	W89° 39.021'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	4'	1 Plant	None	N/A	N/A
2008	3' - 4'	20 - 40 Plants	Heavy	N/A	N/A
2009	3' - 4'	20 - 40 Plants	Heavy	N/A	
2010	3' - 4'	3 Plants	None	N/A	N/A
2011	2' - 4'	10 Plants	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL044	N44° 52.018'	W89° 38.882'			· · · ·
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	4'	1 Plant	None	N/A	N/A
2008	4'	1 Plant	Medium	N/A	N/A
2009	4'	1 Plant	Medium	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	1' - 2'	3 Plants	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL045	N44° 52.100'	W89° 38.670'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	4' - 6'	~15 - 25 Plants	None	N/A	N/A
2008	4' - 6'	~15 - 25 Plants	Light/Heavy	N/A	N/A
2009	4' - 6'	~15 - 25 Plants	Light/Heavy	N/A	PL045 and PL046 were grouped as a continuous site.
2010	3' - 4'	4 Plants	None	N/A	PL045 and PL046 were grouped as a continuous site.
2011	1' - 3'	38 Plants	None	N/A	PL045 and PL046 were grouped as a continuous site.

Point	Latitude	Longitude			
MOSN PL046	N44° 52.156'	W89° 38.591'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	4' - 6'	5 Plants	None	N/A	N/A
2008	4' - 6'	5 Plants	None	N/A	N/A
2009	-	-	-	-	PL045 and PL046 were grouped as a continuous site. See PL045 for detail.
2010	-	-	-	_	PL045 and PL046 were grouped as a continuous site - See PL045 for detail.
2011	-	-	-	-	PL045 and PL046 were grouped as a continuous site - See PL045 for detail

Point	Latitude	Longitude			
MOSN PL047	N44° 52.244'	W89° 38.516'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	3'	1 Plant	None	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	3'	1 Plants	None	N/A	N/A

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Point	Latitude	Longitude			
MOSN PL048	N44° 52.329'	W89° 38.459'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	3'	2 Plants	None	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	2' - 3'	3 plants	Light	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A

Point	Latitude	Longitude			
MOSN PL049	N44° 52.396'	W89° 38.433'		<u>-</u>	
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	3' - 4'	5 Plants	None	N/A	N/A
2008	2' - 3'	2 Plants	Heavy	N/A	N/A
2009	2' - 5'	- 50 - 100 Plant	Heavy	N/A	PL049, PL050, PL051, and PL052 were grouped as a continuous site.
2010	2' - 5'	5 Plants	None	N/A	PL049, PL050, PL051, and PL052 were grouped as a continuous site.
2011	1' - 4'	250 - 500	None	N/A	PL049, PL050, PL051, PL052,PL053, PL054, PL055, and PL056 were grouped as a continuous site.

Point	Latitude	Longitude			
MOSN PL050	N44° 52.467'	W89° 38.411'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	3' - 5'	~6 - 10 Plants	None	N/A	N/A
2008	2' - 5'	~8 - 10 Plants	Heavy	N/A	N/A
2009	-	-	-	-	PL049, PL050, PL051, and PL052 were grouped as a continuous site. See PL049 for detail.
2010	-	-	-	-	PL049, PL050, PL051, and PL052 were grouped as a continuous site. See PL049 for detail.
2011	-	-	-	-	PL049, PL050, PL051, PL052, PL053, PL054, PL055, and PL056 were grouped as a continuous site. See PL049 for detail.

Point	Latitude	Longitude			
MOSN PL051	N44° 52.506'	W89° 38.401'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	3' - 5'	4 Plants	None	N/A	N/A
2008	4' - 5'	2 Plants	None	N/A	N/A
2009	-	-	-	-	PL049, PL050, PL051, and PL052 were grouped as a continuous site. See PL049 for detail.
2010	-	-	-	· _	PL049, PL050, PL051, and PL052 were grouped as a continuous site. See PL049 for detail.
2011	-	-	-	-	PL049, PL050, PL051, PL052,PL053, PL054, PL055, and PL056 were grouped as a continuous site. See PL049 for detail.

Point	Latitude	Longitude			
MOSN PL052	N44° 52.545'	W89° 38.396'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	3' - 5'	3 Plants	None	N/A	N/A
2008	3'	15 Plants	Heavy	N/A	N/A
2009	-	-	-	-	PL049, PL050, PL051, and PL052 were grouped as a
					continuous site. See PL049 for detail.
2010	-	-	-	-	PL049, PL050, PL051, and PL052 were grouped as a
					continuous site. See PL049 for detail.
2011	-	-	-	-	PL049, PL050, PL051, PL052, PL053, PL054, PL055, and
				PL056 were grouped as a continuous site. See PL049 for	
					detail.

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Point	Latitude	Longitude			
MOSN PL053	N44° 52.639'	W89° 38.373'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	4'	1 Plant	None	N/A	N/A
2008	3' - 5'	8 - 10 Plants	Heavy	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	4'	1 Plant	None	N/A	N/A
2011	-	-	-	-	PL049, PL050, PL051, PL052,PL053, PL054, PL055, and PL056 were grouped as a continuous site. See PL049 for detail.

Point	Latitude	Longitude			
MOSN PL054	N44° 52.680'	W89° 38.348'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	3'	1 Plant	None	N/A	N/A
2008	3' - 6'	30 - 40 Plants	None	N/A	N/A
2009	2' - 4'	30 - 50 Plants	Light/Heavy	N/A	PL054, and PL055 were grouped as a continuous site.
2010	3' - 4'	2 Plants	None	N/A	PL054, and PL055 were grouped as a continuous site.
2011	-	-	-	-	PL049, PL050, PL051, PL052, PL053, PL054, PL055, and
					PL056 were grouped as a continuous site. See PL049 for
					detail.

Point	Latitude	Longitude			
MOSN PL055	N44° 52.717'	W89° 38.333'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	4'	2 Plants	None	N/A	N/A
2008	- 4'	2 Plants	None	N/A	N/A
2009	-	-	-	-	PL054, and PL055 were grouped as a continuous site. See PL054 for detail.
2010	-	-	<b>-</b>	-	PL054, and PL055 were grouped as a continuous site. See PL054 for detail.
2011	-	-	-	-	PL049, PL050, PL051, PL052,PL053, PL054, PL055, and PL056 were grouped as a continuous site. See PL049 for detail.

Point	Latitude	Longitude			
MOSN PL056	N44° 52.803'	W89° 38.322'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	5'	2 Plant	None	N/A	N/A
2008	5'	1 Plant	None	N/A	N/A
2009	2' - 5'	5 Plants	None	N/A	N/A
2010	4'	1 Plant	None	N/A	N/A
2011	-	-	-	<b>.</b>	PL049, PL050, PL051, PL052, PL053, PL054, PL055, and PL056 were grouped as a continuous site. See PL049 for detail.

Point	Latitude	Longitude			
MOSN PL057	N44° 52.758'	W89° 38.235'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	4'	2 Plants	None	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	2' - 5'	5 plants	Light/Heavy	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	-	-	-		PL057, PL 058, PL148, PL166, and PL190 were grouped as a continuous site - See PL190 for detail.

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Point	Latitude	Longitude			
MOSN PL058	N44° 52.612'	W89° 38.267'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	2' - 4'	4 Plants	None	N/A	N/A
2008	2' - 3'	6 Plants	Heavy	N/A	N/A
2009	2' - 5'	14 Plants	Light/Heavy	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	-	-	-	-	PL057, PL 058, PL148, PL166, and PL190 were grouped
					as a continuous site - See PL190 for detail.

Point	Latitude	Longitude			
MOSN PL059	N44° 52.426'	W89° 38.335'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	5'	1 Plant	None	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A

Point	Latitude	Longitude			
MOSN PL060	N44° 52.362'	W89° 38.344'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	4' - 5'	2 Plants	None	N/A	N/A
2008	3'	1 Plant	None	N/A	N/A
2009	2' - 4'	4 Plant	Medium	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A

Point	Latitude	Longitude			
MOSN PL061	N44° 52.284'	W89° 38.385'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	4'	7 Plants	None	N/A	N/A
2008	2' - 4'	4 Plants	Heavy	N/A	N/A
2009	4'	1 Plants	None	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	-	-	-	-	PL061, and PL62 were grouped as a continuous site. See PL62 for detail.

Point	Latitude	Longitude			
MOSN PL062	N44° 52.186'	W89° 38.444'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	2' - 5"	8 Plants	None	N/A	N/A
2008	2' - 4'	3 Plants	None	N/A	N/A
2009	2' - 4'	6 Plants	Light/Heavy	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	1' - 4'	25 Plants	None	N/A	PL061, and PL62 were grouped as a continuous site.

Point	Latitude	Longitude			
MOSN PL063	N44° 52.118'	W89° 38.510'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	3' -5'	6 Plants	None	N/A	N/A
2008	3' -4'	3 Plants	None	N/A	N/A
2009	2' -4'	5 Plants	Light/Heavy	N/A	N/A
2010	5'	1 Plant	None	N/A	N/A
2011	1' - 4'	25 Plants	None	N/A	N/A

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Point	Latitude	Longitude			
MOSN PL064	N44° 51.992'	W89° 38.722'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	4'	1 Plant	None	N/A	N/A
2008	3' - 4'	5 Plants	Minor	N/A	N/A
2009	3' - 4'	5 Plants	Light	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	3'	2 Plants	None	N/A	N/A

Point	Latitude	Longitude				
MOSN PL065	N44° 51.977'	W89° 38.797'				
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	
2007	4'	2 Plants	None	N/A	N/A	
2008	4'	2 Plants	None	N/A	N/A	A second s
2009	2' - 3'	4 Plants	Heavy	N/A	N/A	
2010	N/A	N/A	N/A	N/A	N/A	
2011	3'	1 Plant	None	N/A	N/A	· · · · · · · · · · · · · · · · · · ·

Point	Latitude	Longitude				
MOSN PL066	N44° 51.694'	W89° 39.311'				
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	1. P. 4.
2007	3' - 5'	5 Plants	None	N/A	N/A	
2008	4' - 6'	6 Plants	None	N/A	N/A	
2009	4' - 6'	10 Plants	None	N/A	N/A	
2010	3'	1 Plant	None	N/A	N/A	
2011	1' - 3'	3 Plants	None	N/A	N/A	

Point	Latitude	Longitude				
MOSN PL067	N44° 51.486'	W89° 39.532'				
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	
2007	4'	1 Plant	None	N/A	N/A	
2008	N/A	N/A	N/A	N/A	N/A	
2009	N/A	N/A	N/A	N/A	N/A	
2010	N/A	N/A	N/A	N/A	N/A	
2011	N/A	N/A	N/A	N/A	N/A	- de transie

Point	Latitude	Longitude			
MOSN PL068	N44° 50.974'	W89° 39.870'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	5'	1 Plant	None	Pulled	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	1' - 3'	5 Plants	None	N/A	

Point	Latitude	Longitude			
MOSN PL069	N44° 50.827'	W89° 39.975'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	4' - 6'	2 Plants	None	N/A	N/A
2008	4' - 6'	15 - 20 Plants	None	N/A	N/A
2009	3' - 5'	6 Plants	Heavy	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	1' - 4'	15 Plants	None	N/A	N/A

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Point	Latitude	Longitude				
MOSN PL070	N44° 50.761'	W89° 40.041'				
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	
2007	5'	1 Plant	None	Pulled	N/A	
2008	2' - 5'	9 Plants	Light	N/A	N/A	
2009	3' - 4'	2 Plants	Heavy	N/A	N/A	
2010	3'	1 Plant	None	N/A	N/A	
2011	1'-3'	3 Plants	None	N/A	N/A	

Point	Latitude	Longitude			
MOSN PL071	N44° 50.640'	W89° 40.197'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	4' - 5'	2 Plants	None	Pulled	N/A
2008	5'	1 Plant	None	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A

Point	Latitude	Longitude			
MOSN PL072	N44° 50.466'	W89° 40.569'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	4'	1 Plant	None	Pulled	N/A
2008	3' - 4'	3 Plants	None	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	2'	2 Plants	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL073	N44° 50.428'	W89° 40.670'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	5'	1 Plant	None	N/A	N/A
2008	3'	1 Plant	Minor	N/A	N/A
2009	3'	1 Plant	Medium	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	4'	1 Plant	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL074	N44° 50.153'	W89° 41.034'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	4'	2 Plants	None	Pulled	N/A
2008	3'	1 Plant	Heavy	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	1'	1 Plant	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL075	N44° 50.179'	W89° 40.930'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	3' - 5'	3 Plants	None	N/A	N/A
2008	3' - 5'	3 Plants	None	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A

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Point	Latitude	Longitude			
MOSN PL076	N44° 49.981'	W89° 41.120'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	5'	2 Plants	None	Pulled	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A

Point	Latitude	Longitude			
MOSN PL077	N44° 49.677'	W89° 41.362'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	6'	1 Plant	None	Pulled	N/A
2008	3' - 4'	2 Plant	Heavy	N/A	N/A
2009	4'	1 Plant	Light	Pulled	N/A
2010	3' - 5'	2 Plant	Light	Pulled	N/A
2011	2'	1 Plant	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL078	N44° 49.488'	W89° 41.556'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	4'	2 Plants	None	Pulled	N/A
2008	4'	1 Plant	None	Pulled	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	2'	1 Plant	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL079	N44° 49.015'	W89° 41.505'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	4'	2 Plants	None	Pulled	N/A
2008	2'	1 Plant	Heavy	N/A	N/A
2009	2'	4 Plants	Heavy	Pulled	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A

Point	Latitude	Longitude			
MOSN PL080	N44° 48.935'	W89° 41.480'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	4'	2 Plants	None	N/A	N/A
2008	1'	2 Plants	Light	Pulled	N/A
2009	1'	2 Plants	Heavy	N/A	N/A
2010	3'	3 Plants	Heavy	N/A	N/A
2011	-	-	-	-	PL080, PL081, and PL135 were grouped as a continuous site. See PL135 for detail.

Point	Latitude	Longitude				
MOSN PL081	N44° 48.903'	W89° 41.468'				
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	
2007	- 4'	3 Plants	Medium	Cut	N/A	
2008	1' - 2'	2 Plants	None	N/A	N/A	
2009	1' - 2'	2 Plants	Heavy	N/A	N/A	1
2010	N/A	N/A	N/A	N/A	N/A	
2011	-	-	-	_	PL080, PL081, and PL135 were grouped a site. See PL135 for detail.	as a continuous

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Point	Latitude	Longitude			
MOSN PL082	N44° 47.267'	W89° 41.822'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	3' - 4'	2 Plants	None	N/A	N/A
2008	3' - 4'	2 Plants	Medium	N/A	N/A
2009	1' - 4'	~35 Plants	Medium/Heavy	N/A	PL082 and PL083 were grouped as a continuous site.
2010	1' - 4'	~35 Plants	Medium/Heavy	N/A	PL082 and PL083 were grouped as a continuous site.
2011	1' - 4'	~35 Plants	Light/Medium	N/A	PL082 and PL083 were grouped as a continuous site.

Point	Latitude	Longitude			
MOSN PL083	N44° 47.285'	W89° 41.802'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	2' - 4'	10 Plants	Light	N/A	N/A
2008	2' - 4'	10 Plants	Heavy	N/A	N/A
2009	-	-	-	-	PL082 and PL083 were grouped as a continuous site. See
					PL082 for detail
2010	-	-	-	-	PL082 and PL083 were grouped as a continuous site. See
					PL082 for detail
2011	-	-	-	-	PL082 and PL083 were grouped as a continuous site. See
					PL082 for detail.

Point	Latitude	Longitude			
MOSN PL084	N44° 47.305'	W89° 41.756'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	2' - 4'	25 Plants	Light	N/A	N/A
2008	2' - 4'	25 Plants	Heavy	N/A	N/A
2009	2' - 4'	~25 Plants	Heavy	N/A	N/A
2010	2' - 3'	~50 Plants	Light/Medium	N/A	N/A
2011	2' - 3'	~50 Plants	Light/Medium	N/A	N/A

Point	Latitude	Longitude			
MOSN PL085	N44° 47.344'	W89° 41.756'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	2' - 4'	30 Plants	Light	N/A	N/A
2008	2' - 4'	30 Plants	Medium	N/A	N/A
2009	2' - 5'	~60 Plants	Medium	N/A	PL085 and PL86 were grouped as a continuous site.
2010	2' - 4'	~60 Plants	Light	N/A	PL085 and PL86 were grouped as a continuous site.
2011	1' - 2'	~60 Plants	Light	N/A	PL085 and PL086 were grouped as a continuous site.

Point	Latitude	Longitude			
MOSN PL086	N44° 47.348'	W89° 41.754'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	2' - 4'	20 Plants	Light	N/A	N/A
2008	2' - 4'	20 Plants	Medium	N/A	N/A
2009	-	-	-	-	PL085 and PL86 were grouped as a continuous site. See
					PL085 for detail.
2010	-	-	-	-	PL085 and PL86 were grouped as a continuous site. See
					PL085 for detail.
2011	· -	-	-	-	PL085 and PL086 were grouped as a continuous site. See
					PL085 for detail.

Point	Latitude	Longitude				
MOSN PL087	N44° 47.272'	W89° 42.096'				
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	
2007	2' -4'	2 Plants	None	Pulled	N/A	
2008	N/A	N/A	N/A	N/A	N/A	
2009	N/A	N/A	N/A	N/A	N/A	
2010	N/A	N/A	N/A	N/A	N/A	
2011	2'	2 Plants	Light	N/A	N/A	

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Point	Latitude	Longitude				
MOSN PL088	N44° 47.246'	W89° 42.061'				
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	
2007	4'	1 Plant	None	Pulled	N/A	
2008	N/A	N/A	N/A	N/A	N/A	
2009	2' - 3'	~ 2' x 15' 3 plants	Heavy	Pulled	N/A	
2010	N/A	N/A	N/A	N/A	N/A	
2011	2'	1 plant	None	Pulled	N/A	

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Point	Latitude	Longitude			
MOSN PL089	N44° 47.427'	W89° 41.727'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	2' - 4'	5 Plants	Unknown	N/A	N/A
2008	2' - 4'	3 Plants	Unknown	N/A	N/A
2009	2' - 4'	2 Plants	Unknown	N/A	N/A
2010	2' - 4'	2 Plants	Unknown	N/A	N/A
2011	1' - 2'	3 Plants	Unknown	N/A	N/A

Point	Latitude	Longitude			
MOSN PL090	N44° 47.407'	W89° 41.813'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	4'	1 Plant	Unknown	N/A	N/A
2008	4'	1 Plant	Unknown	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A

Point	Latitude	Longitude			
MOSN PL091	N44° 47.447'	W89° 42.014'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	6'	2 Plants	Unknown	N/A	N/A
2008	6'	2 Plants	Unknown	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A

Point	Latitude	Longitude			
MOSN PL092	N44° 47.309'	W89° 42.217'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	4' - 5'	2 Plants	Unknown	N/A	N/A
2008	4' - 5'	2 Plants	Unknown	N/A	N/A
2009	2' - 5'	~35 Plants	Light/Heavy	N/A	PL092 and PL133 were grouped as a continuous site.
2010	2' - 3'	~35 Plants	Very Heavy	N/A	PL092 and PL133 were grouped as a continuous site.
2011	1' - 3'	~49 Plants	Light	N/A	PL092 and PL133 were grouped as a continuous site.

Point	Latitude	Longitude			
MOSN PL093	N44° 47.296'	W89° 42.165'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	5'	1 Plant	Unknown	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	3' - 4'	1 Plant	Unknown	N/A	N/A

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Point	Latitude	Longitude			
MOSN PL094	N44° 47.195'	W89° 41.952'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	5'	1 Plant	Unknown	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A

Point	Latitude	Longitude			
MOSN PL095	N44° 47.215'	W89° 41.919'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	5'	1 Plant	Unknown	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A

Point	Latitude	Longitude			
MOSN PL096	N44° 47.319'	W89° 41.862'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	4' - 6'	3 Plants	Unknown	N/A	N/A
2008	4' - 6'	3 Plants	Unknown	N/A	N/A
2009	1' - 6'	~10 Plants	Light/Medium	N/A	PL096 and PL123 were grouped as a continuous site.
2010	1' - 6'	~10 Plants	Light/Medium	N/A	PL096 and PL123 were grouped as a continuous site.
2011	1' - 2'	12 Plants	None	N/A	PL096 and PL123 were grouped as a continuous site.

Point	Latitude	Longitude			
MOSN PL097	N44° 47.330'	W89° 41.789'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	3' - 5'	~60' x 40' ~200 Plants	Light	N/A	N/A
2008	3' - 5'	~60' x 40' ~200 Plants	Medium	N/A	N/A
2009	2' - 6'	~200 - 300 Plants	Medium	N/A	PL097, PL098, and PL099 were grouped as a continuous site.
2010	2' - 6'	~300 Plants	Light	N/A	PL097, PL098, and PL099 were grouped as a continuous site.
2011	1' - 3'	~300 Plants	None/Light	N/A	PL097, PL098, and PL099 were grouped as a continuous site.

Point	Latitude	Longitude			
MOSN PL098	N44° 47.338'	W89°41.784'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	2' - 6'	~100' x 40' ~50 Plants	Light	N/A	N/A
2008	2' - 6'	~100' x 40' ~50 Plants	Medium	N/A	N/A
2009	-	-	-	-	PL097, PL098, and PL099 were grouped as a continuous site. See PL097 for detail.
2010	-	-	-	-	PL097, PL098, and PL099 were grouped as a continuous site. See PL097 for detail.
2011	-	-	-	-	PL097, PL098, and PL099 were grouped as a continuous site. See PL097 for detail.

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Point	Latitude	Longitude			
MOSN PL099	N44° 47.327'	W89° 41.764'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	2' - 4'	10 Plants	Light	N/A	N/A
2008	2' - 4'	10 Plants	Medium	N/A	N/A
2009	**	· –	-	· •	PL097, PL098, and PL099 were grouped as a continuous
					site. See PL097 for detail.
2010	-	-	-	-	PL097, PL098, and PL099 were grouped as a continuous
					site. See PL097 for detail.
2011		-	-	-	PL097, PL098, and PL099 were grouped as a continuous
					site. See PL097 for detail.

Point	Latitude	Longitude				
MOSN PL100	N44° 48.856'	W89° 42.476'				
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	
2007	2' - 8'	~25' - 30' diameter island	Heavy	N/A	N/A	
2008	2' - 8'	~25' - 30' diameter island	Light	N/A	N/A	
2009	2' - 8'	~25' - 30' diameter island	Light	N/A	N/A	
2010	2' - 8'	~25' - 30' diameter island	Heavy	N/A	N/A	
2011	2' - 4'	10' diameter island	Light	N/A	N/A	

Point	Latitude	Longitude			
MOSN PL101	N44° 47.998'	W89° 43.769'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	2' - 9'	>1000 Plants	None	N/A	N/A
2008	2' - 9'	>1000 Plants	None	N/A	N/A
2009	2' - 9'	>1000 Plants	None	N/A	N/A
2010	2' - 9'	>1000 Plants	None	N/A	N/A
2011	2' - 9'	>1000 Plants	None	N/A	N/A

Point	Latitude	Longitude				
MOSN PL102	N44° 48.433'	W89° 42.097'				
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	1. A
2007	N/A	N/A	N/A	N/A	N/A	· · ·
2008	3' - 4'	2 Plants	Light	Pulled	N/A	
2009	3' - 4'	2 Plants	Light	Cut	N/A	····· · · · · · · · · · · · · · · · ·
2010	N/A	N/A	N/A	N/A	N/A	
2011	N/A	N/A	N/A	N/A	N/A	

Point	Latitude	Longitude			
MOSN PL103	N44° 49.258'	W89° 41.687.			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	4' - 5'	5 Plants	Light	Pulled	N/A
2009	1'	1 Plants	Heavy	Pulled	N/A
2010	3'	1 Plant	Light	Pulled	N/A
2011	3'	1 Plant	None	N/A	N/A

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Point	Latitude	Longitude			
MOSN PL104	N44° 49.506'	W89° 41.658'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	3'	1 Plant	Heavy	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	3'	1 Plant	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL105	N44° 49.593'	W89° 41.581'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	5'	1 Plant	None	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A

Point	Latitude	Longitude			
MOSN PL106	N44° 49.686'	W89° 41.507'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	6'	1 Plant	None	N/A	N/A
2009	6'	1 Plant	Light	Cut	N/A
2010	6'	1 Plant	Medium	Cut	N/A
2011	3'	1 Plant	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL107	N44° 49.769'	W89° 41.431'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	3' - 6'	6 Plants	Light	N/A	N/A
2009	3' - 4'	3 Plants	Medium	Pulled	N/A
2010	6'	1 Plant	None	Pulled	N/A
2011	3'	1 Plant	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL108	N44° 50.216'	W89° 41.075'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	4'	1 Plant	Heavy	N/A	N/A
2009	3'	1 Plant	Heavy	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	3'	1 Plant	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL109	N44° 50.776'	W89° 40.121'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	1'	1 Plant	None	N/A	N/A
2009	3'	1 Plant	None	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	2' -3'	2 Plants	None	N/A	N/A

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Point	Latitude	Longitude			
MOSN PL110	N44° 51.251'	W89° 39.797'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	4'	1 Plant	None	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	3'	1 Plant	None	N/A	N/A
2011	3'	1 Plant	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL111	N44° 51.746'	W89° 39.395'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	4'	1 Plant	None	N/A	N/A
2009	5'	1 Plant	None	N/A	N/A
2010	4'	1 Plant	None	N/A	N/A
2011	1' - 3'	6 Plants	None	N/A	N/A

Point	Latitude	Longitude				
MOSN PL112	N44° 51.305'	W89° 39.660'				
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	in the second
2007	N/A	N/A	N/A	N/A	N/A	
2008	4'	2 Plants	None	N/A	N/A	
2009	4'	2 Plants	None	N/A	N/A	
2010	2'	1 Plant	None	N/A	N/A	
2011	1'	2 Plants	None	N/A	N/A	

Point	Latitude	Longitude			
MOSN PL113	N44° 51.196'	W89° 39.744'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	4'	1 Plant	None	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	4'	2 Plants	None	N/A	N/A
2011	1' - 2'	4 Plants	None	N/A	N/A

Point	Latitude	Longitude				
MOSN PL114	N44° 50.271	W89° 40.953'				
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	
2007	N/A	N/A	N/A	N/A	N/A	
2008	4'	1 Plant	None	Pulled	N/A	
2009	N/A	N/A	N/A	N/A	N/A	
2010	N/A	N/A	N/A	N/A	N/A	
2011	N/A	N/A	N/A	N/A		

Point	Latitude	Longitude			
MOSN PL115	N44° 50.161'	W89° 40.978'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	3' - 5'	3 Plants	Medium	N/A	N/A
2009	2'	1 Plants	Medium	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	1' - 2'	2 Plants	None	N/A	N/A

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Point	Latitude	Longitude			
MOSN PL116	N44° 50.096'	W89° 41.043'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	2' - 4'	20 - 25 Plants	Medium	N/A	N/A
2009	2'	3 Plants	Heavy	N/A	N/A
2010	2'	3 Plants	None	N/A	N/A
2011	1' - 3'	16 Plants	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL117	N44° 49.896'	W89° 41.133'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	2' - 4'	40 - 50 Plants	Heavy	N/A	N/A
2009	2' - 4'	15 - 20 Plants	Heavy	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	1' - 5'	>50 Plants	None	N/A	PL117 and PL118 were grouped as a continuous site.

Point	Latitude	Longitude			
MOSN PL118	N44° 49.931'	W89° 41.008'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	3'	1 Plant	Light	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	-	-	-	-	PL117 and PL118 were grouped as a continuous site. See
					PL117 for detail.

Point	Latitude	Longitude			
MOSN PL119	N44° 49.788'	W89° 41.264'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	4'	2 Plants	None	Cut	N/A
2009	4'	1 Plants	Light	Cut	N/A
2010	4' - 5'	2 Plants	None	Cut	N/A
2011	1'	1 Plant	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL120	N44° 49.429'	W89° 41.586'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	2'	1 Plant	Light	Pulled	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	3'	1 Plant	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL121	N44° 49.336'	W89° 41.596'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	4'	1 Plant	None	Pulled	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	1' - 4'	5 Plants	None	N/A	N/A

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Point	Latitude	Longitude			
MOSN PL122	N44° 49.261'	W89° 41.586'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	2' - 4'	2 Plants	None	N/A	N/A
2009	3'	6 Plants	Light	Pulled	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A

Point	Latitude	Longitude			
MOSN PL123	N44° 47.350'	W89° 41.846'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	4'	1 Plants	Unknown	N/A	N/A
2009	-	-	-	-	PL096 and PL123 were grouped as a continuous site. See PL096 for detail.
2010		-	-	-	PL096 and PL123 were grouped as a continuous site. See PL096 for detail.
2011	-	-	-	-	PL096 and PL123 were grouped as a continuous site. See PL096 for detail.

Point	Latitude	Longitude				
MOSN 124	N44° 47.373'	W89° 41.772'				
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	
2007	N/A	N/A	N/A	N/A	N/A	
2008	4' - 5'	3 Plants	Unknown	N/A	N/A	
2009	2' - 5'	~15 Plants	Unknown	N/A	PL124 and PL125 were grouped as a continuous sit	e.
2010	2' - 5'	11 Plants	Unknown	N/A	PL124 and PL125 were grouped as a continuous sit	
2011	N/A	N/A	N/A	N/A	PL124 and PL125 were grouped as a continuous sit	

Point	Latitude	Longitude			
MOSN PL125	N44° 47.395'	W89° 41.731'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	5'	1 Plant	Unknown	N/A	N/A
2009	-	-	-	-	PL124 and PL125 were grouped as a continuous site. See PL124 for detail.
2010	-	-	-	-	PL124 and PL125 were grouped as a continuous site. See PL124 for detail.
2011	-	-	-	-	PL124 and PL125 were grouped as a continuous site. See PL124 for detail.

Point	Latitude	Longitude				
MOSN PL126	N44° 47.445'	W89° 41.755'				
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	
2007	N/A	N/A	N/A	N/A	N/A	
2008	4' - 5'	5 Plants	Unknown	N/A	N/A	
2009	4' - 5'	5 Plants	Unknown	N/A	N/A	
2010	4' - 5'	5 Plants	Unknown	N/A	N/A	
2011	1' - 4'	3 Plants	Unknown	N/A		

Point	Latitude	Longitude				
MOSN PL127	N44° 47.453'	W89° 41.810'				
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	
2007	N/A	N/A	N/A	N/A	N/A	
2008	4'	1 Plant	Unknown	N/A	N/A	<u> </u>
2009	N/A	N/A	N/A	N/A	N/A	
2010	N/A	N/A	N/A	N/A	N/A	
2011	N/A	N/A	N/A	N/A	N/A	· · · · · · · · · · · · · · ·

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Point	Latitude	Longitude			
MOSN PL128	N44° 47.465'	W89° 41.888'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	5'	1 Plant	Unknown	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A

Point	Latitude	Longitude			
MOSN PL129	N44° 47.377'	W89° 42.021'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	2'	1 Plant	Unknown	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	N/A	N/A	N/A	Sprayed by Mill	N/A
				Personnel	

Point	Latitude	Longitude			
MOSN PL130	N44° 47.331'	W89° 42.083'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	2'	1 Plant	None	Pulled	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A

Point	Latitude	Longitude			
MOSN PL131	N44° 47.332'	W89° 42.121'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	4'	1 Plant	Unknown	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A

Point	Latitude	Longitude			
MOSN PL132	N44° 47.274'	W89° 42.176'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	4'	1 Plant	Unknown	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A

Point	Latitude	Longitude			
MOSN PL133	N44° 47.216'	W89° 42.313'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	2' - 4'	30 Plants	Medium	N/A	N/A
2009	-	-	-	-	PL092 and PL133 were grouped as a continuous site. See
					PL092 for detail.
2010	-	-	-	-	PL092 and PL133 were grouped as a continuous site. See
					PL092 for detail.
2011	-	-	-	-	PL092 and PL133 were grouped as a continuous site. See
_011					PL092 for detail.

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Point	Latitude	Longitude			
MOSN PL134	N44° 47.297'	W89° 42.105'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	4'	5 Plants	Light	Pulled	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	3' - 4'	1 Plant	None	Pulled	
2011	N/A	N/A	N/A	N/A	N/A

Point	Latitude	Longitude			
MOSN PL135	N44° 48.963'	W89° 41.486'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	3'	1 Plant	Medium	N/A	N/A
2010	5'	1 Plant	Heavy	N/A	N/A
2011	1' - 5'	36 Plants	None	N/A	PL080, PL081, and PL135 were grouped as a continuous site.

Point	Latitude	Longitude			
MOSN PL136	N44° 49.713'	W89° 41.331'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	3'	1 Plant	Light	Pulled	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A

Point	Latitude	Longitude			
MOSN PL137	N44° 49.817'	W89° 41.222'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	3'	1 Plant	Light	Pulled	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	1' - 2'	12 Plants	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL138	N44° 49.245'	W89° 41.682'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	4'	1 Plant	Heavy	Pulled	N/A
2010	4'	1 Plant	Medium	Pulled	
2011	N/A	N/A	N/A	N/A	N/A

Point	Latitude	Longitude				
MOSN PL139	N44° 49.270'	W89° 41.684'				
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Si	tes
2007	N/A	N/A	N/A	N/A	N/A	
2008	N/A	N/A	N/A	N/A	N/A	
2009	5'	1 Plant	Heavy	Pulled	N/A	
2010	N/A	N/A	N/A	N/A	N/A	i
2011	2'	2 Plants	None	N/A	N/A	

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Point	Latitude	Longitude			
MOSN PL140	N44° 49.442'	W89° 41.674'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	5'	2 Plants	None	Pulled	N/A
2010	4'	1 Plant	Light	Cut	N/A
2011	۵'	2 Plants	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL141	N44° 49.544'	W89° 41.630'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	5'	1 Plant	Light	Cut	N/A
2010	3'	1 Plant	None	Pulled	N/A
2011	2'	1 Plant	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL142	N44° 49.757'	W89° 41.442'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	5'	1 Plant	Light	Cut	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	2'	1 Plant	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL143	N44° 49.785'	W89° 41.420'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	2' - 4'	12 Plants	Heavy	N/A	N/A
2010	3' - 5'	2 Plants	Light	Pulled	N/A
2011	1' - 5'	8 Plants	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL144	N44° 51.115'	W89° 39.885'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	3' - 5'	2 Plants	None	N/A	N/A
2010	-	-	-	-	PL036 and PL144 were grouped as a continuous site. See PL036 for detail.
2011	-	-	-	-	PL036 and PL144 were grouped as a continuous site. See PL036 for detail.

Point	Latitude	Longitude			
MOSN PL145	N44° 51.178'	W89° 39.844'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	3' - 5'	6 Plants	Light	N/A	N/A
2010	3' - 5'	5 Plants	None	N/A	N/A
2011	1' - 4'	4 Plants	None	N/A	N/A

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Point	Latitude	Longitude			
MOSN PL146	N44° 51.984'	W89° 39.089'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	2' - 3'	7 Plants 30' x 5'	Light	N/A	N/A
2010	3' - 5'	2 Plants	None	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A

Point	Latitude	Longitude			
MOSN PL147	N44° 52.009'	W89° 38.955'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	2' - 3'	5 - 10 Plants	Light	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	1' - 2'	4 Plants	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL148	N44° 52.658'	W89° 38.256'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	4'	1 Plant	Light	N/A	N/A
2010	4'	1 Plant	None	N/A	N/A
2011	-	-	-	-	PL057, PL 058, PL148, PL166, and PL190 were grouped as a continuous site - See PL190 for detail.

Point	Latitude	Longitude			
MOSN PL149	N44° 51.962'	W89° 38.892'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	1'	6 Plants	None	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	3'	2 Plants	None	N/A	N/A

Point	Latitude	Longitude				
MOSN PL150	N44° 50.693'	W89° 40.122'				
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	
2007	N/A	N/A	N/A	N/A	N/A	
2008	N/A	N/A	N/A	N/A	N/A	
2009	3'	1 Plant	None	N/A	N/A	
2010	N/A	N/A	N/A	N/A	N/A	
2011	N/A	N/A	N/A	N/A	N/A	

Point	Latitude	Longitude				
MOSN PL151	N44° 50.549'	W89° 40.378'				
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	
2007	N/A	N/A	N/A	N/A	N/A	
2008	N/A	N/A	N/A	N/A	N/A	
2009	1' - 5'	3 plants	None	Pulled	N/A	
2010	N/A	N/A	N/A	N/A	N/A	
2011	1' - 4'	5 Plants	None	N/A	N/A	

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Point	Latitude	Longitude			
MOSN PL152	N44° 49.817'	W89° 41.397'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	3'	1 Plant	Light	Pulled	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A

Point	Latitude	Longitude			
MOSN PL153	N44° 48.130'	W89° 41.064'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	3'	1 Plant	Light	Pulled	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A

Point	Latitude	Longitude			
MOSN PL154	N44° 47.367'	W89° 42.046'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	4'	1 Plant	None	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A

Point	Latitude	Longitude			
MOSN PL155	N44° 47.575'	W89° 41.626'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	2' - 5'	~12 Plants ~15' x 8'	Light/Medium	N/A	N/A
2010	3' - 4'	6 Plants	Medium/Heavy	N/A	N/A
2011	2' - 4'	6 Plants	Light/Medium	N/A	N/A

Point	Latitude	Longitude			
MOSN PL156	N44° 47.464'	W89° 41.808'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	5'	1 Plant	Unknown	N/A	N/A
2010	5'	1 Plant	None	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A

Point	Latitude	Longitude			
MOSN PL157	N44° 47.442'	W89° 41.928'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	4'	1 Plant	None	Pulled	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A

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Point	Latitude	Longitude			
MOSN PL158 N44° 47.289'	W89° 41.934'				
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	2' - 4'	2 Plants	Light	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A

Point	Latitude	Longitude			
MOSN PL159	N44° 47.250'	W89° 41.871'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	2' - 4'	5 - 8 Plants	Unknown	N/A	N/A
2010	3' - 5'	3 Plants	Unknown	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A

Point	Latitude	Longitude			
MOSN PL160	N44° 47.441'	W89° 41.670'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	5' - 6'	2 Plants	Unknown	N/A	N/A
2010	5'	1 Plant	Unknown	N/A	N/A
2011	3' - 4'	2 Plant	Light	N/A	N/A

Point	Latitude	Longitude			
MOSN PL161	N44° 48.006'	W89° 41.151'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	4' - 5'	2 Plants	Light	Cut	N/A
2011	N/A	N/A	N/A	N/A	N/A

Point	Latitude	Longitude			
MOSN PL162	N44° 49.994'	W89° 41.235'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	3'	2 Plants	Light	N/A	N/A
2011	1' - 4'	3 Plants	None	N/A	N/A

Point	Latitude	Longitude			t.
MOSN PL163	N44° 50.264'	W89° 41.052'			
Үеаг	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	3'	1 Plant	None	N/A	N/A
2011	3'	1 Plant	None	N/A	N/A

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Purple Loosestrife Points Survey Report Project/Lakes: Mosinee/Mosinee Flowage, Half-moon Lake, and Cemetery Slough Date: 2007 thru 2011 WBIC: 1334900, 1435800, and 1435700 County: Marathon Crew: RAL/CTM Datum: WGS84

Point	Latitude	Longitude			
MOSN PL164	N44° 50.287'	W89° 41.030'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	2' - 3'	2 Plants	None	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A

Point	Latitude	Longitude			
MOSN PL165	N44° 50.879'	W89° 41.041'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	4'	1 Plant	None	N/A	N/A
2011	1' - 2'	4	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL166	N44° 52.507'	W89° 38.313'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	4'	1 Plant	None	N/A	N/A
2011	-	-	-	-	PL057, PL 058, PL148, PL166, and PL190 were grouped as a continuous site - See PL190 for detail.

Point	Latitude	Longitude			
MOSN PL167	N44° 51.053'	W89° 38.822'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	3'	2 Plant	None	N/A	N/A
2011	3' - 4'	2 Plants	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL168	N44° 50.517'	W89° 40.452'			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	3'	1 Plant	None	N/A	N/A
2011	3'	1 Plant	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL169	N44 49.494	W89 41.680			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	3'	1 Plant	None	Pulled	N/A
2011	N/A	N/A	N/A	N/A	N/A

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Purple Loosestrife Points Survey Report Project/Lakes: Mosinee/Mosinee Flowage, Half-moon Lake, and Cemetery Slough Date: 2007 thru 2011 WBIC: 1334900, 1435800, and 1435700 County: Marathon Crew: RAL/CTM Datum: WGS84

Point	Latitude	Longitude			
MOSN PL170	N44 50.020	W89 41.380			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	3'	1 Plant	None	Pulled	N/A
2011	N/A	N/A	N/A	N/A	N/A

Point	Latitude	Longitude			
MOSN PL171	N44 47.758	W89 41.277			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	2' - 3'	4 Plants	Heavy	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A

Point	Latitude	Longitude			
MOSN PL172	N44 47.544	W89 41.858			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	3' - 4'	3 Plants	Unknown	N/A	N/A
2011	3' - 4'	3 Plants	Unknown	N/A	N/A

Point	Latitude	Longitude			
MOSN PL173	N44 48.928	W89 41.590			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	4'	1 Plant	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL174	N44 49.156	W89 41.666			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	3'	2 Plants	None	N/A	N/A

Point	Latitude	Longitude				
MOSN PL175	N44 49.376	W89 41.685				
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	
2007	N/A	N/A	N/A	N/A	N/A	
2008	N/A	N/A	N/A	N/A	N/A	
2009	N/A	N/A	N/A	N/A	N/A	
2010	N/A	N/A	N/A	N/A	N/A	
2011	3'	1 Plant	None	N/A	N/A	

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Purple Loosestrife Points Survey Report Project/Lakes: Mosinee/Mosinee Flowage, Half-moon Lake, and Cemetery Slough Date: 2007 thru 2011 WBIC: 1334900, 1435800, and 1435700 County: Marathon Crew: RAL/CTM Datum: WGS84

Point	Latitude	Longitude			
MOSN PL176	N44 49.695	W89 41.498			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	3'	2 Plants	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL177	N44 49.870	W89 41.325			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	2' - 3'	2 Plants	None	N/A	N/A

Point	Latitude	Longitude				
MOSN PL178	N44 49.940	W89 41.271				
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	
2007	N/A	N/A	N/A	N/A	N/A	
2008	N/A	N/A	N/A	N/A	N/A	
2009	N/A	N/A	N/A	N/A	N/A	
2010	N/A	N/A	N/A	N/A	N/A	
2011	1'	2 Plants	None	N/A	N/A	

Point	Latitude	Longitude			
MOSN PL179	N44 50.110	W89 41.143			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	3'	1 Plant	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL180	N44 50.628	W89 40.427			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	3'	2 Plants	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL181	N44 50.635	W89 40.388			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	1' - 3'	2 Plants	None	N/A	N/A

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Point	Latitude	Longitude			
MOSN PL182	N44 51.918	W89 39.043			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	1' - 3'	20 Plants	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL183	N44 51.545	W89 39.500			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	1'	1 Plant	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL184	N44 51.230	W89 39.720			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
_ 2011	1'	2 Plants	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL185	N44 50.590	W89 40.282			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	4'	1 Plant	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL186	N44 50.330	W89 40.865			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	4' - 5'	4 Plant	None	N/A	N/A

Point	Latitude	Longitude			
MOSN PL187	N44 50.045	W89 41.075			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	1'	2 Plants	None	N/A	N/A

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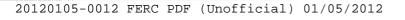
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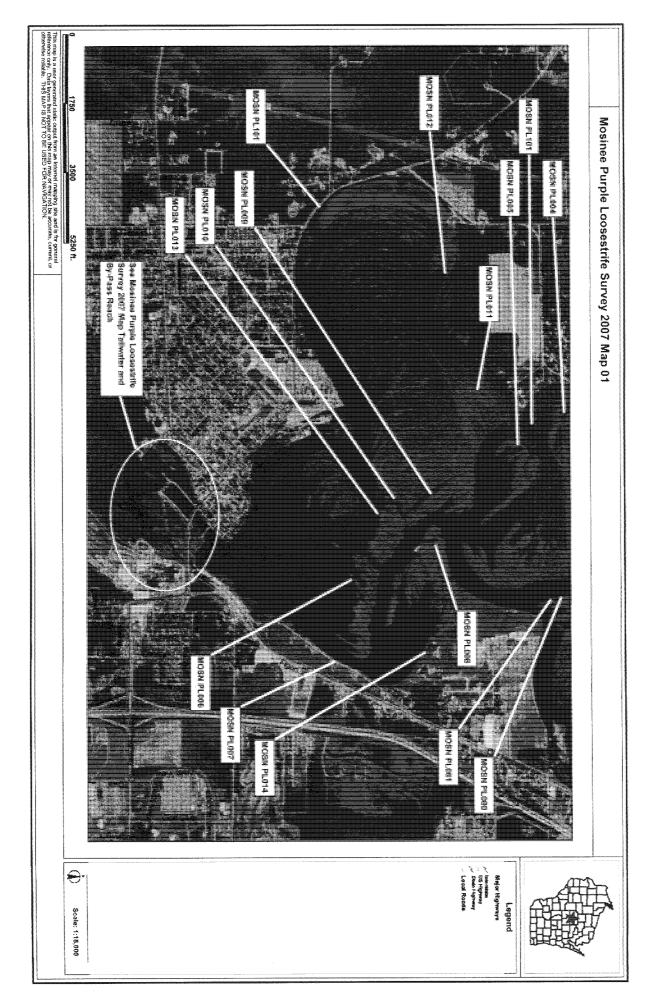
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MOSN PL188	N44 49.197	W89 41.563			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	1'	1 Plant	None	N/A	N/A

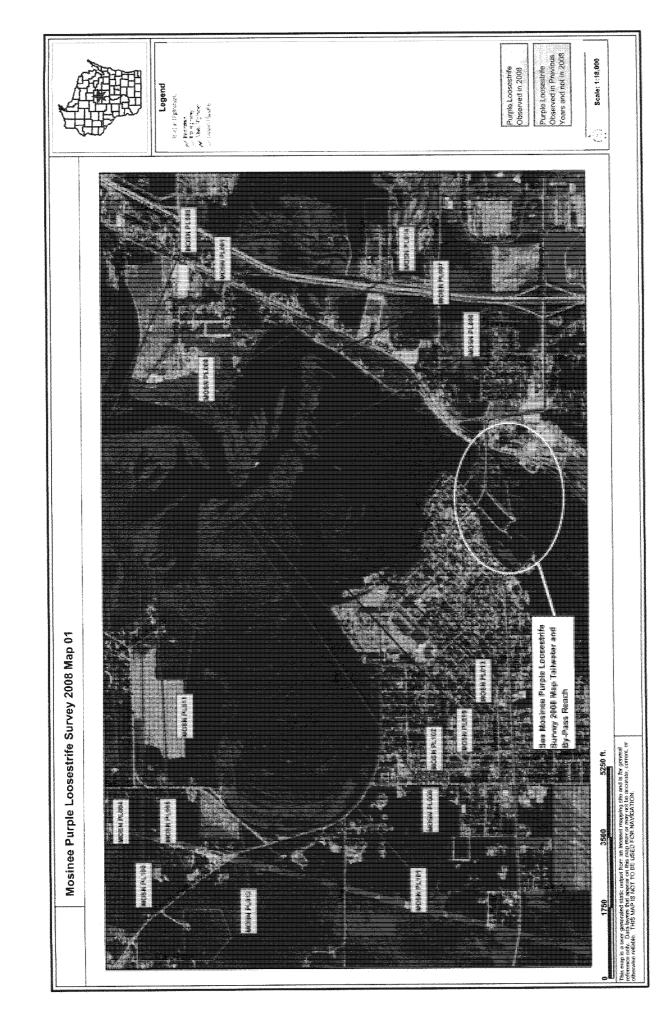
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MOSN PL189	N44 47.457	W89 41.972			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	3' - 5'	2 Plants	None	N/A	N/A

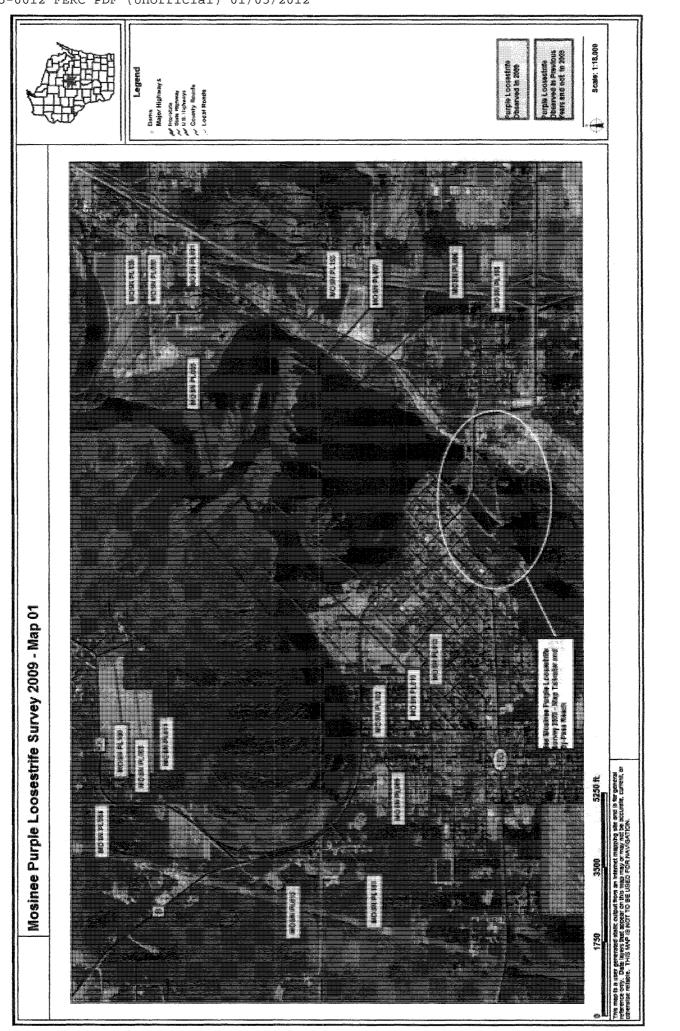
Point	Latitude	Longitude			
MOSN PL190	N44 52.803	W89 38.228			
Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites
2007	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	1' - 4'	>100 Plants	None	N/A	PL057, PL 058, PL148, PL166, and PL190 were grouped as a continuous site

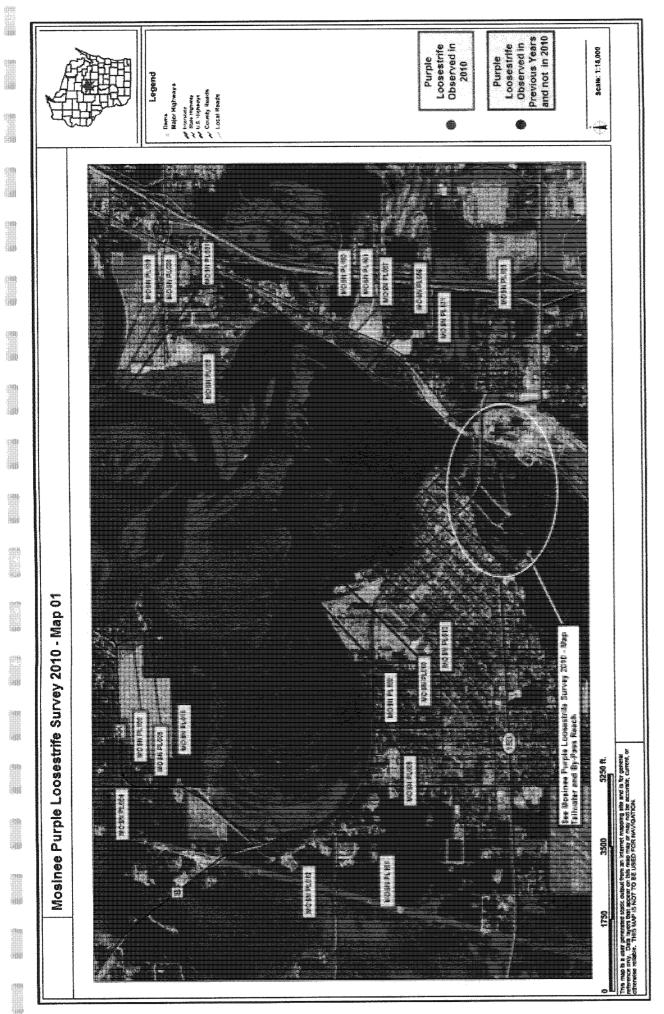
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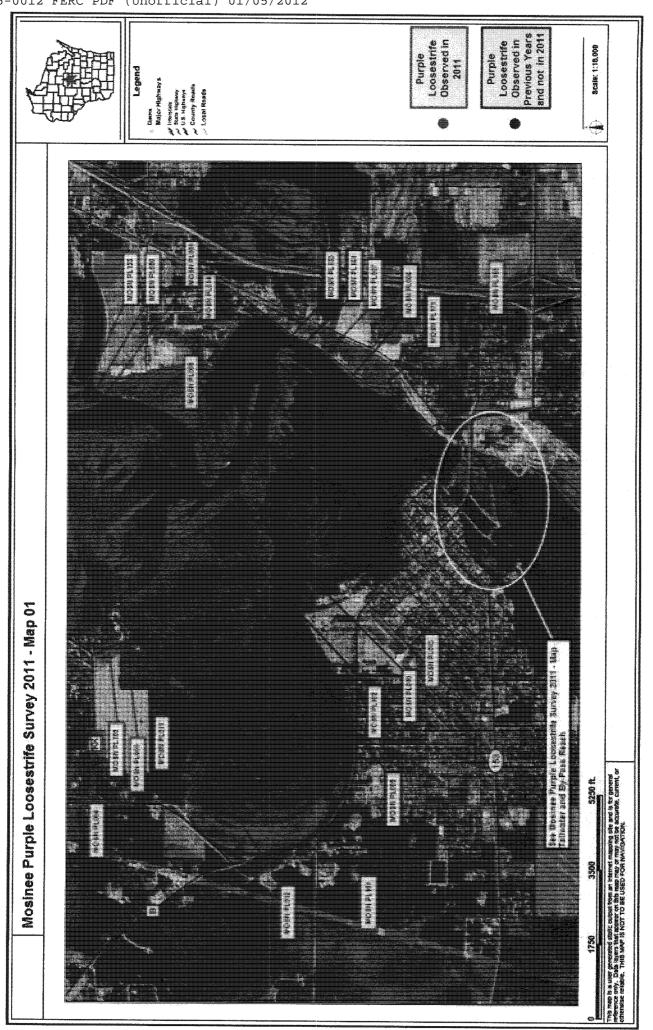


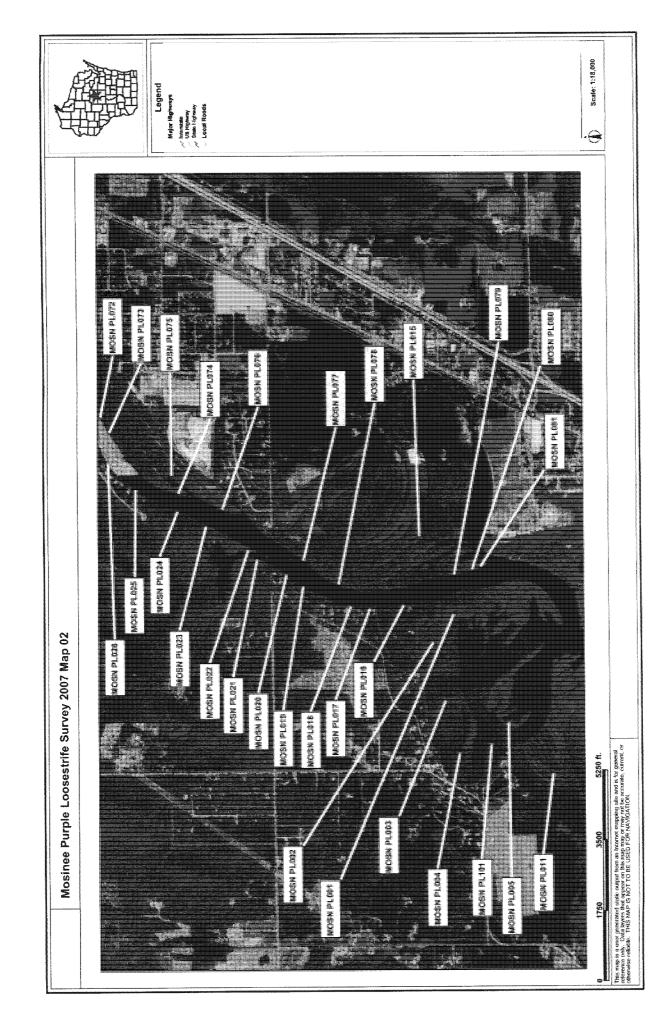


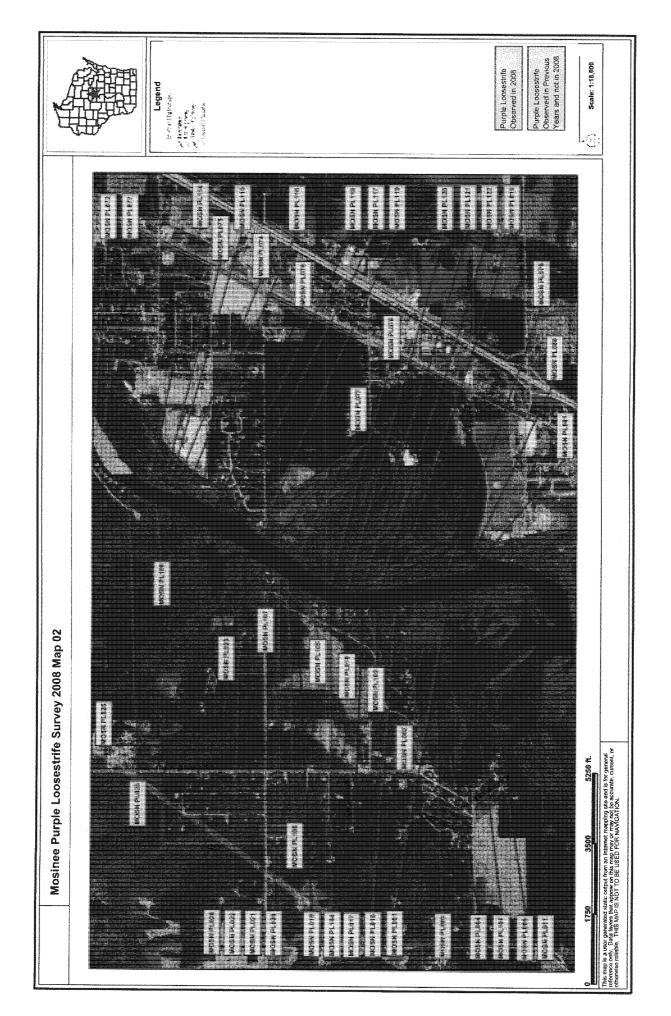


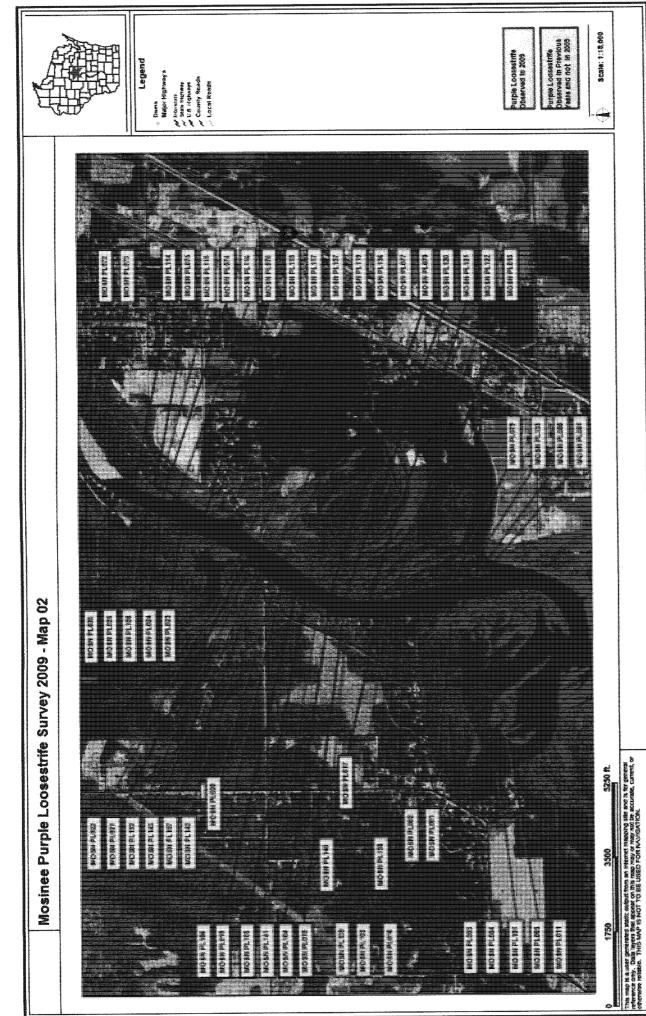


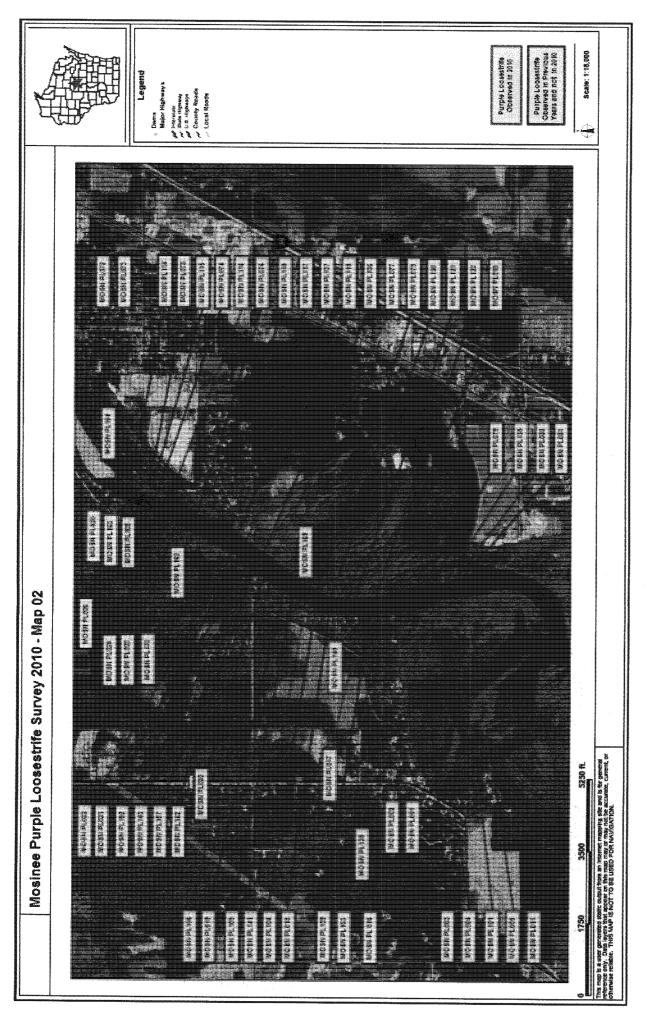


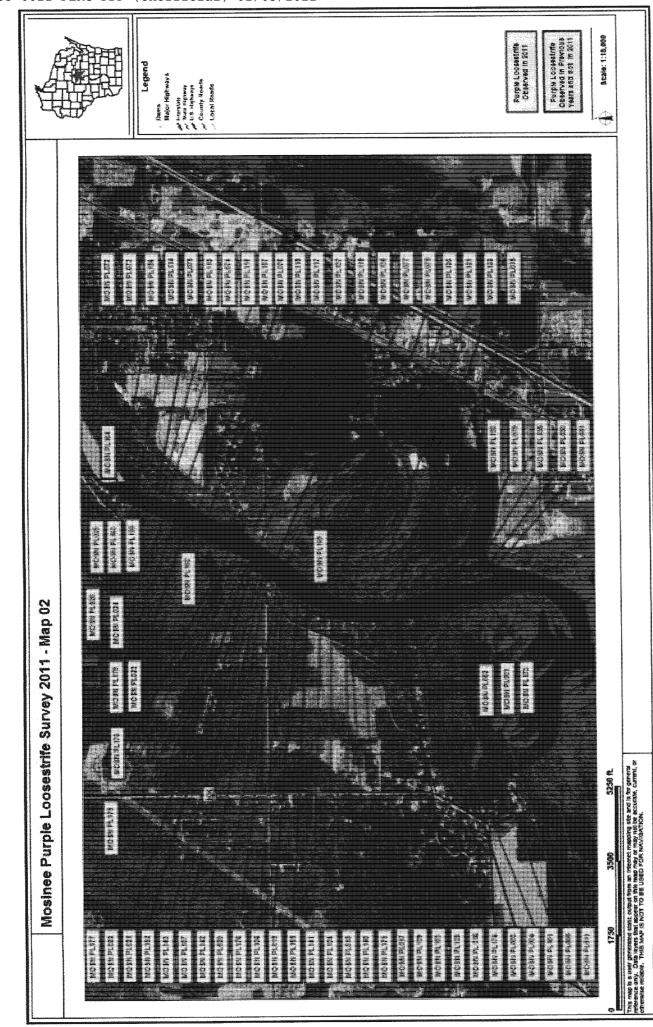


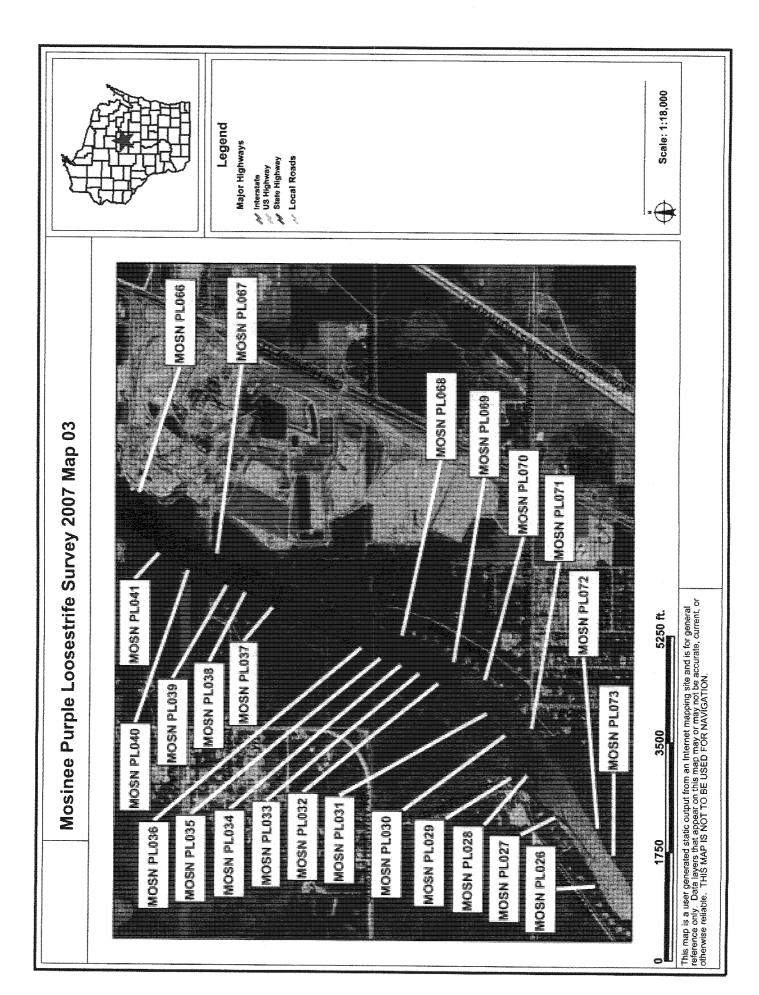


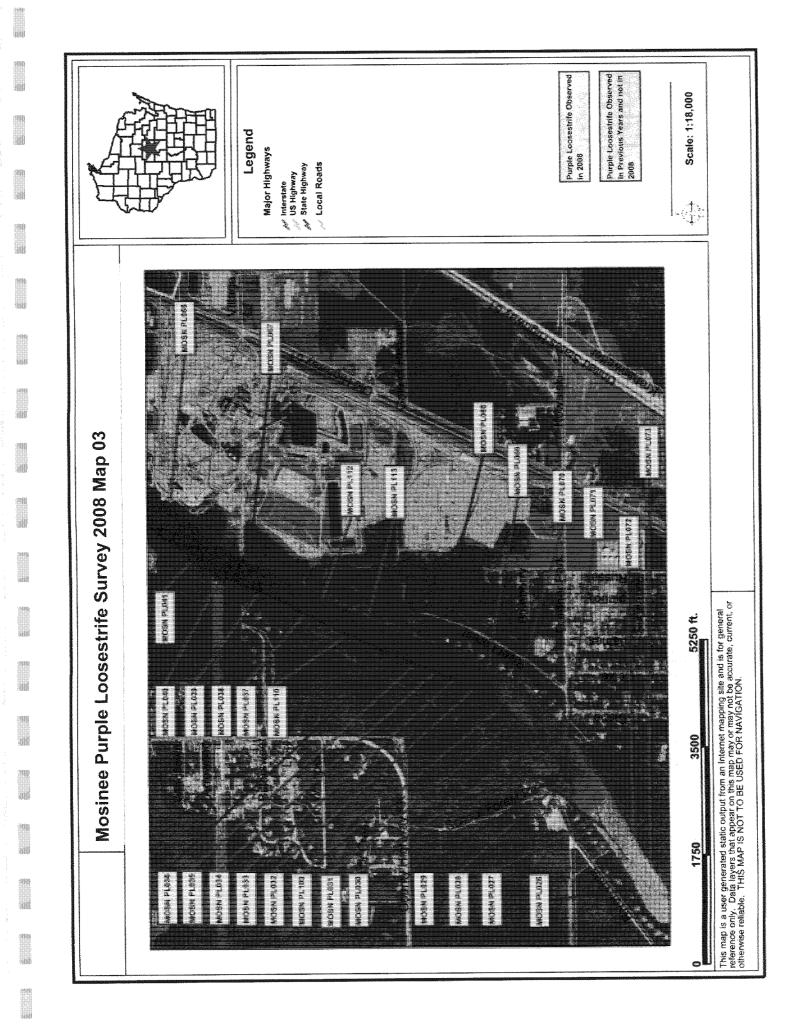


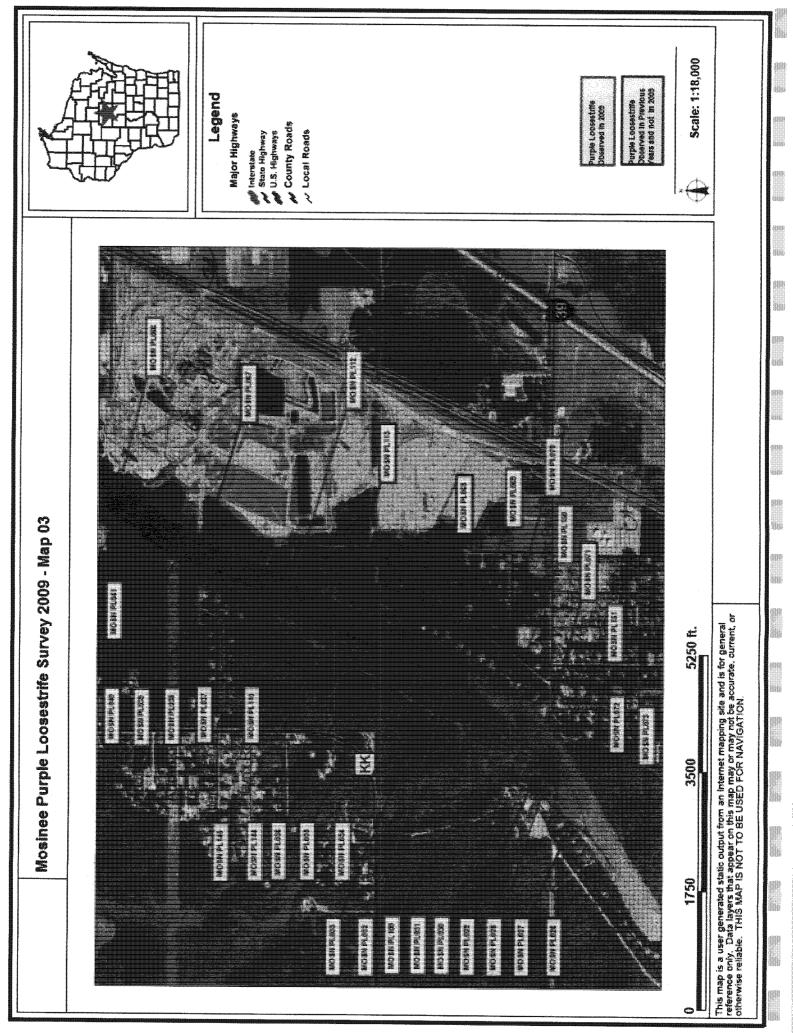


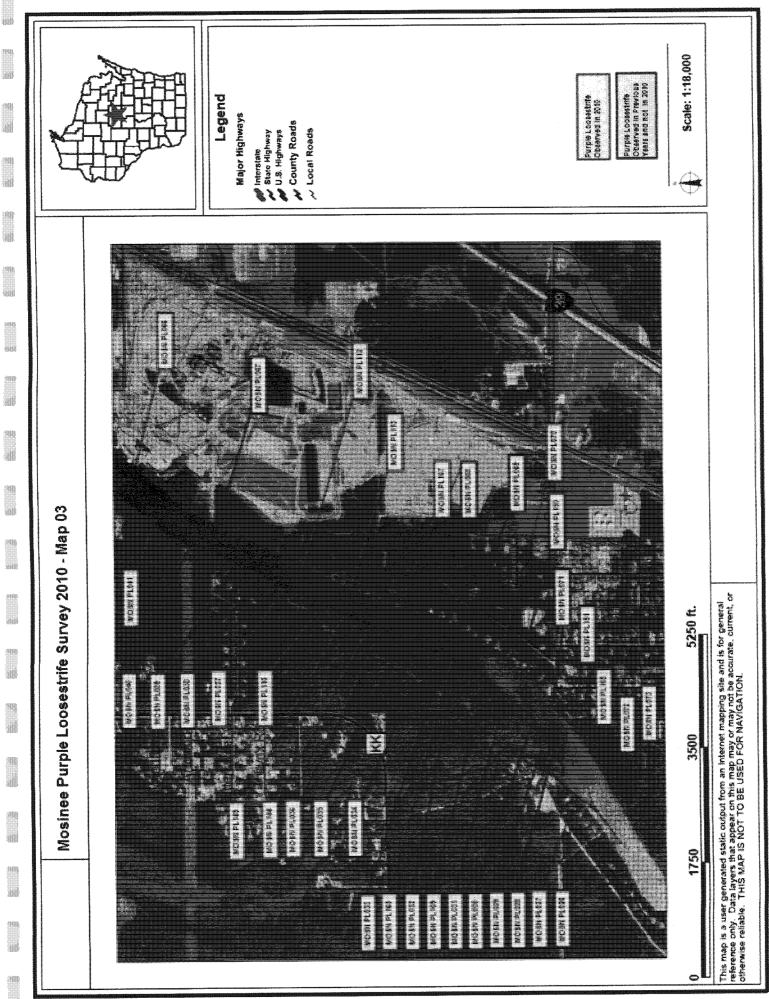


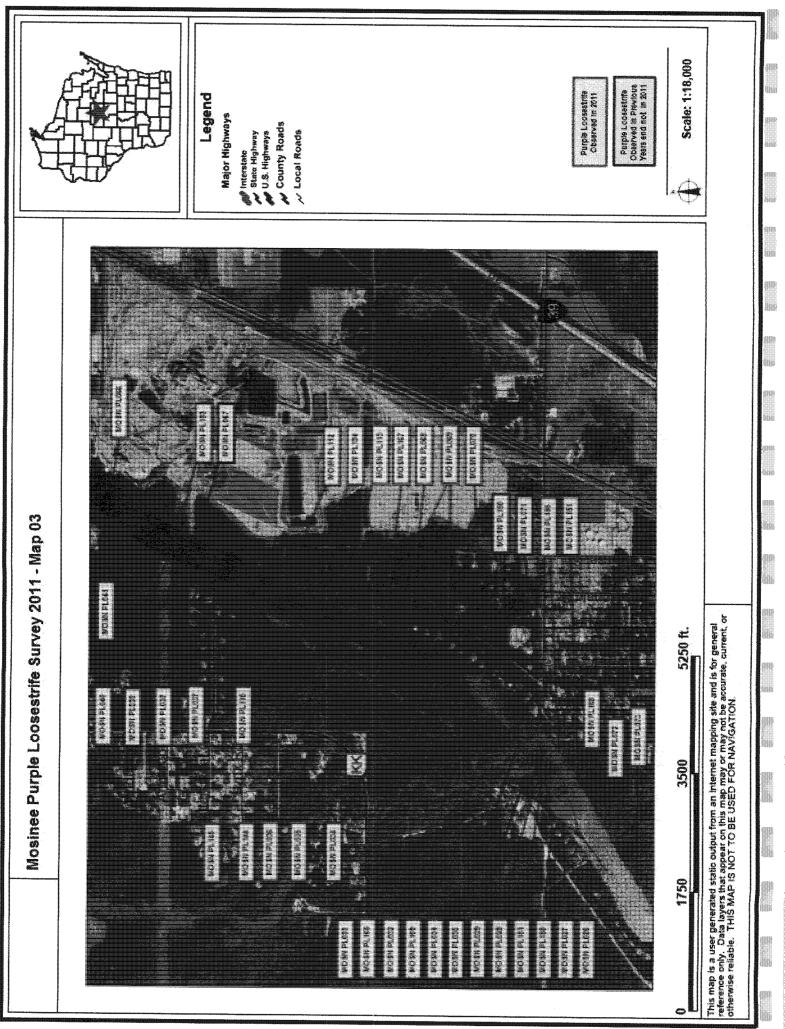


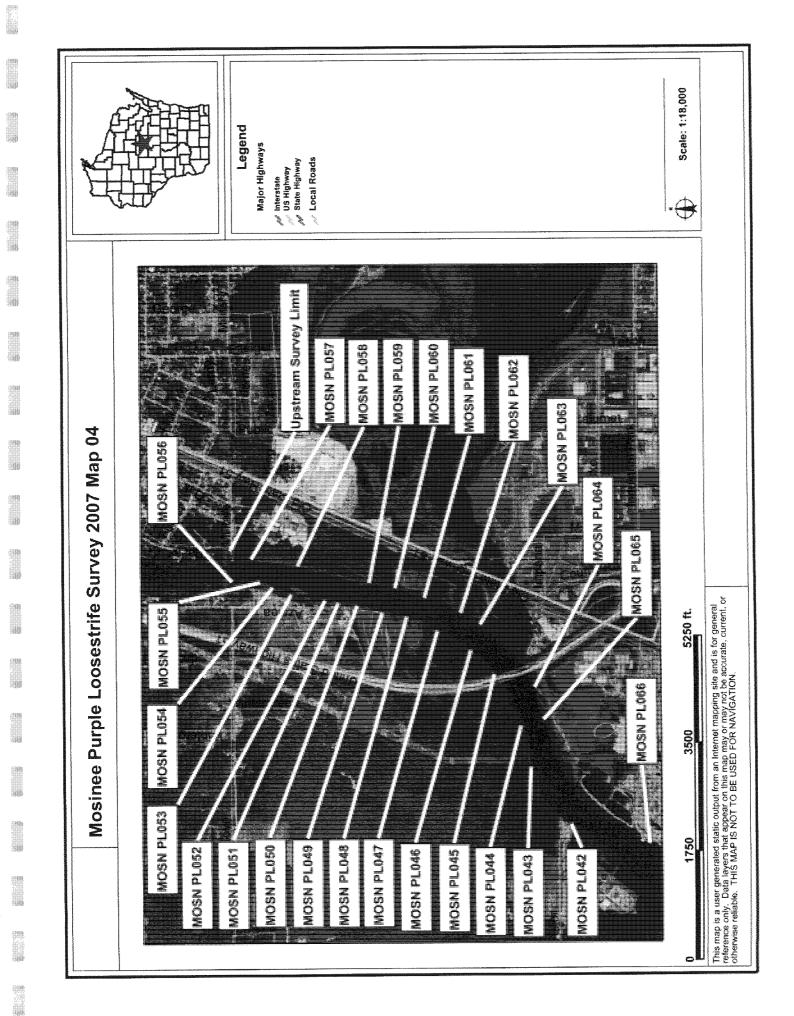


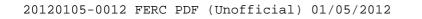


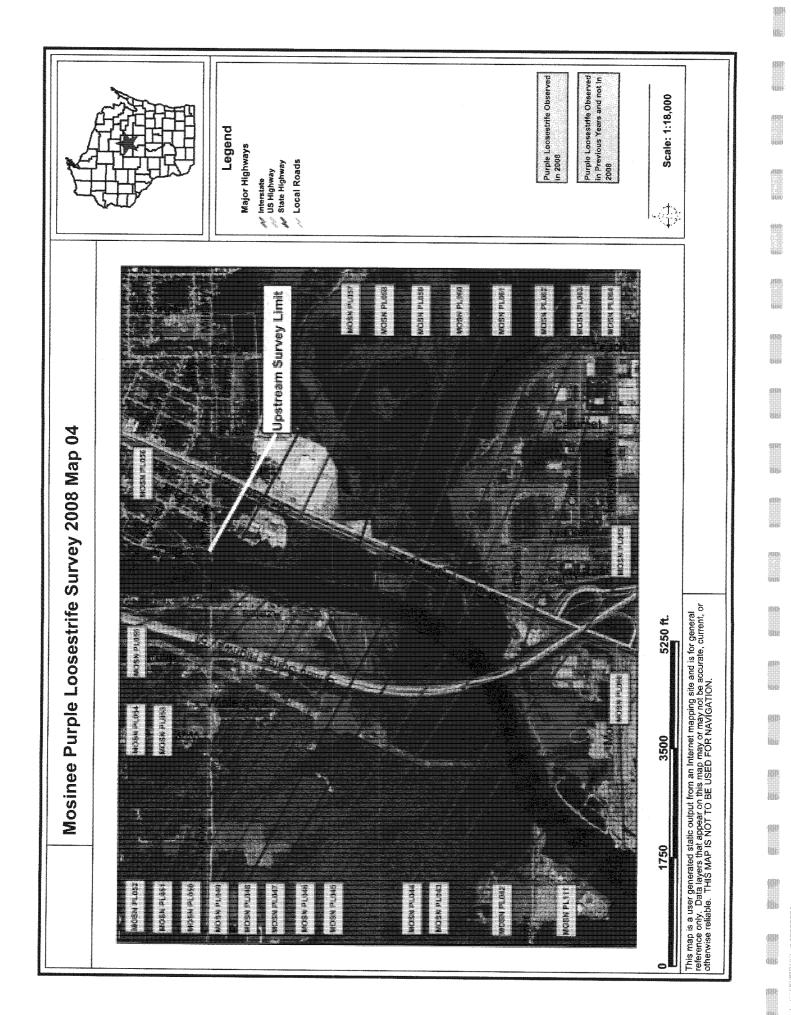


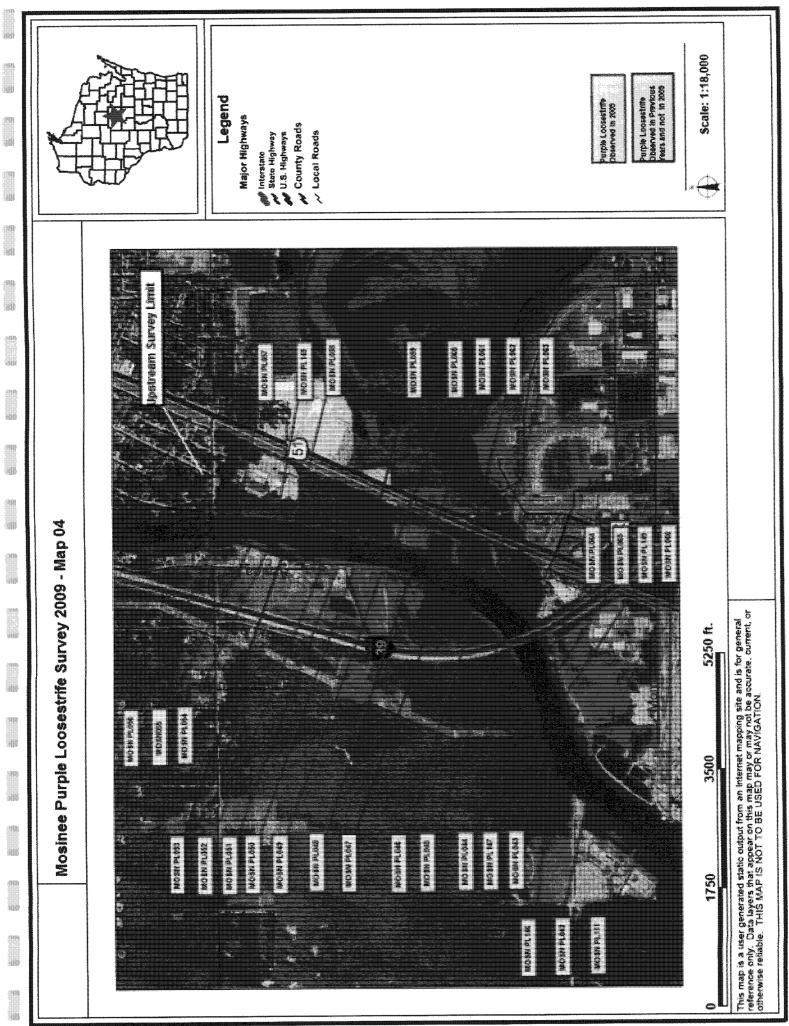


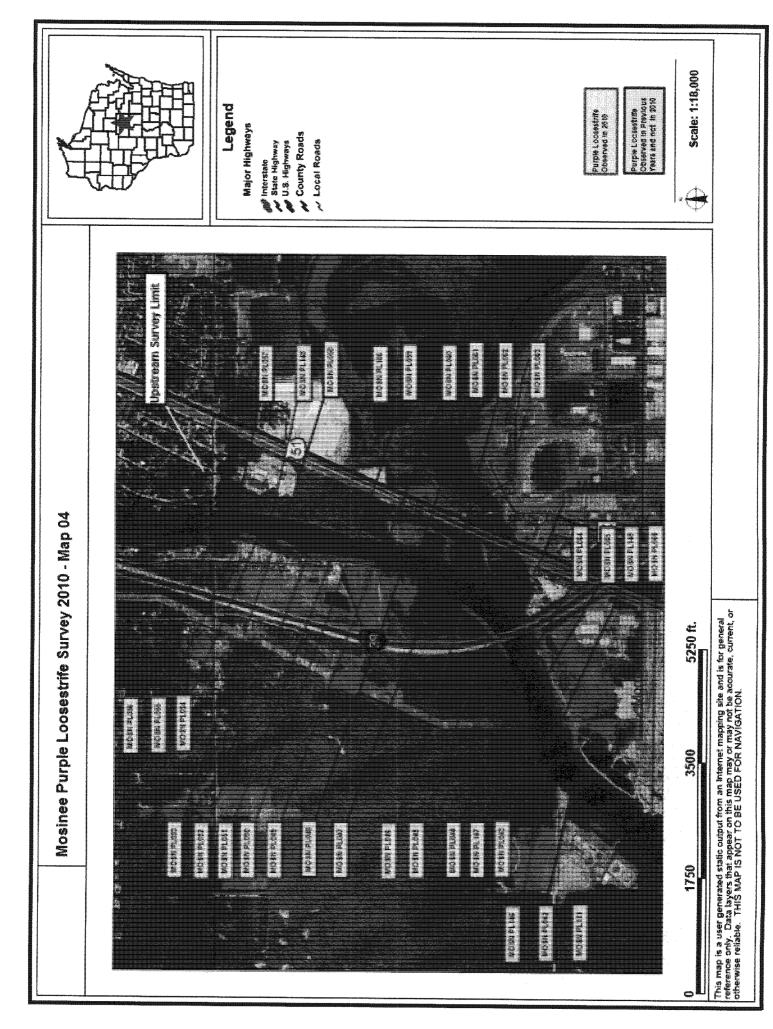


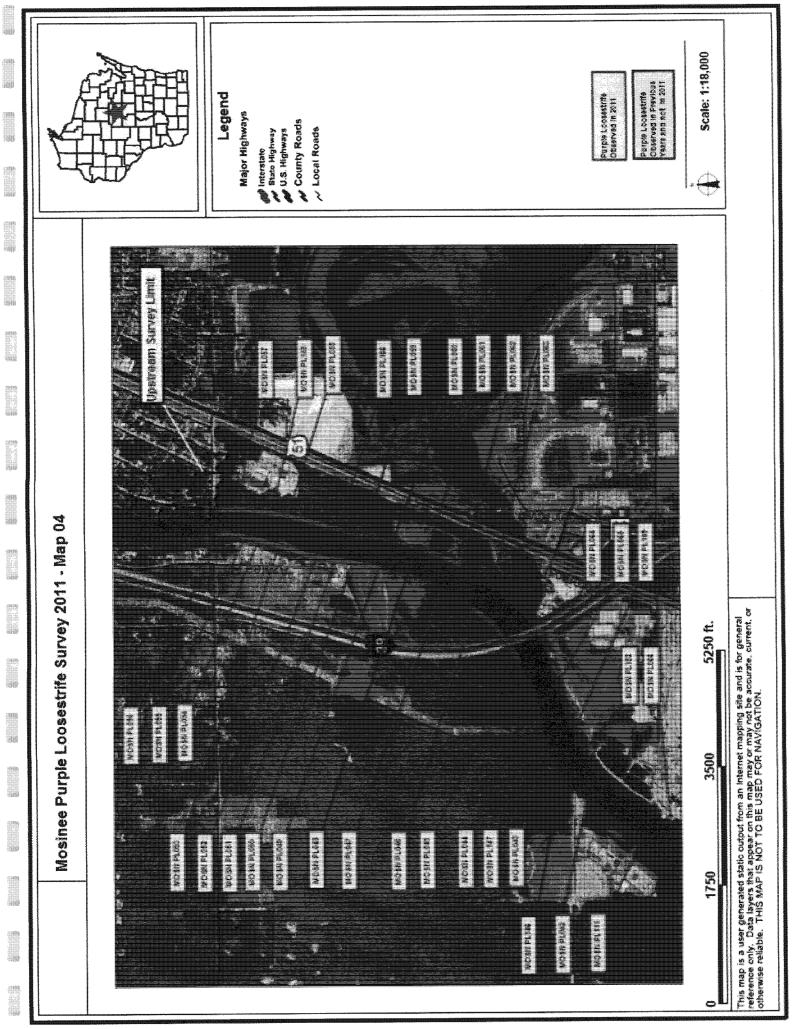


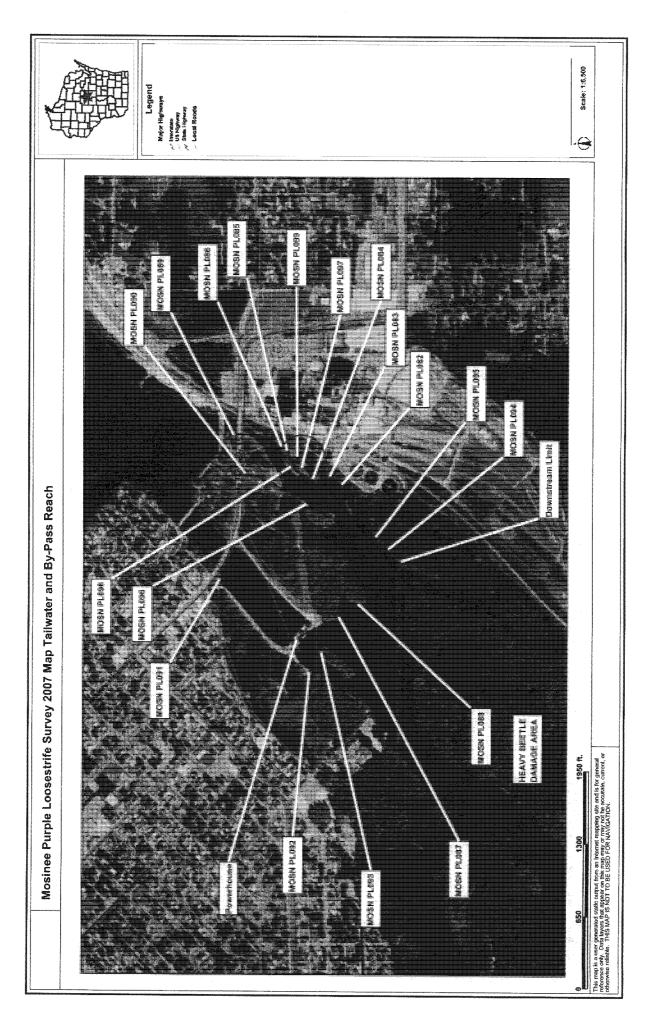


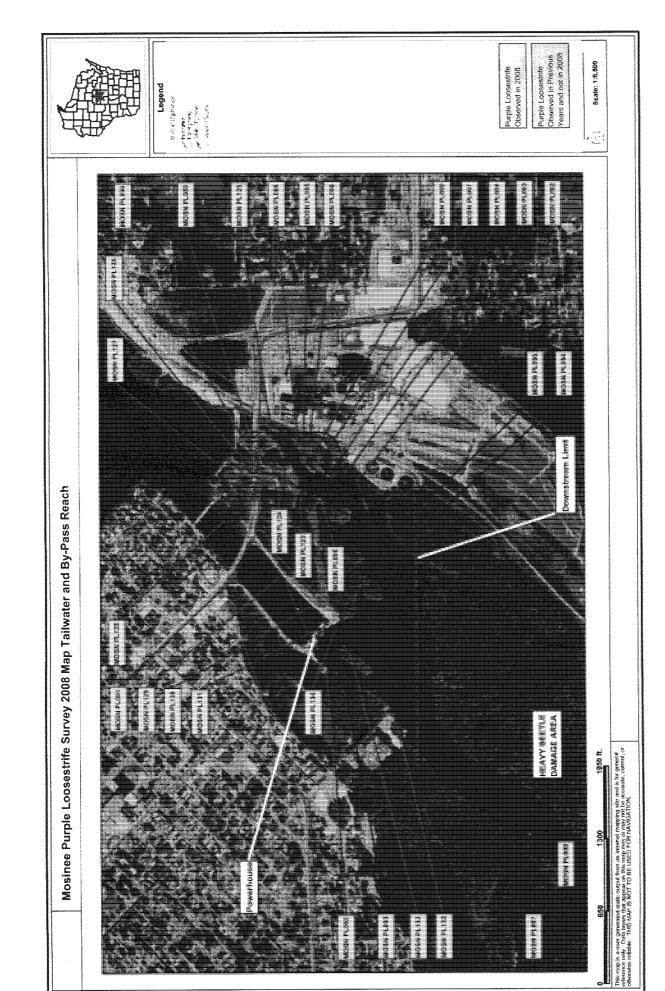


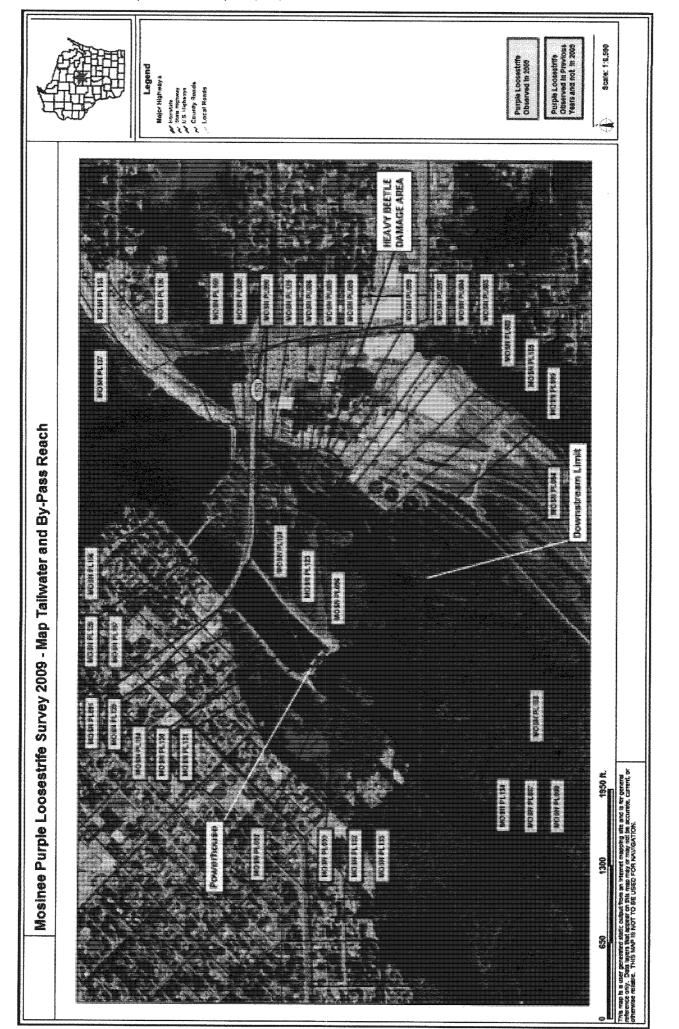


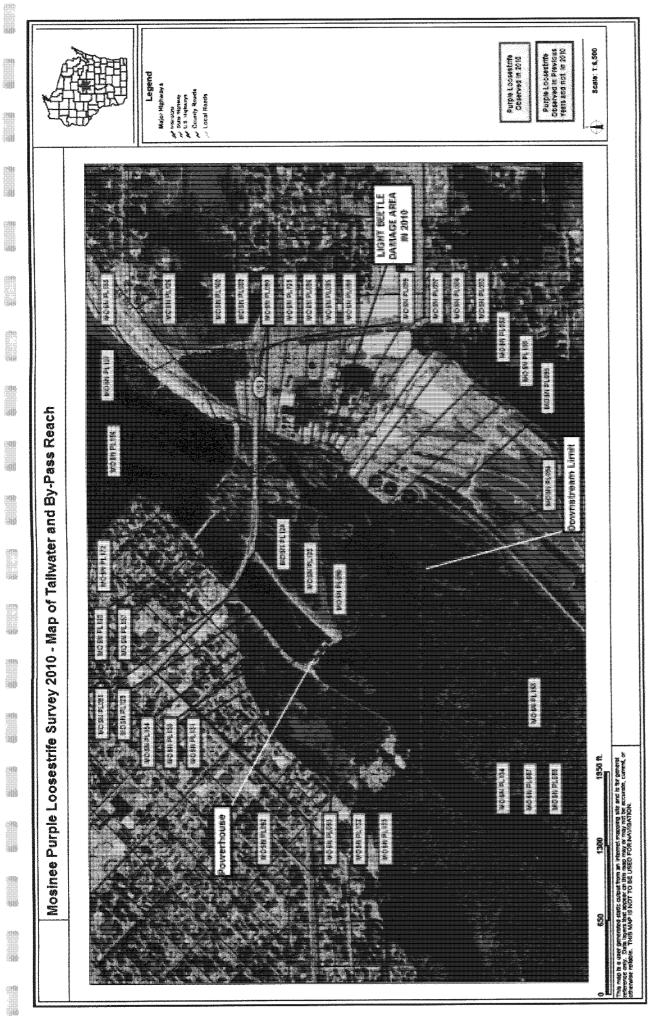


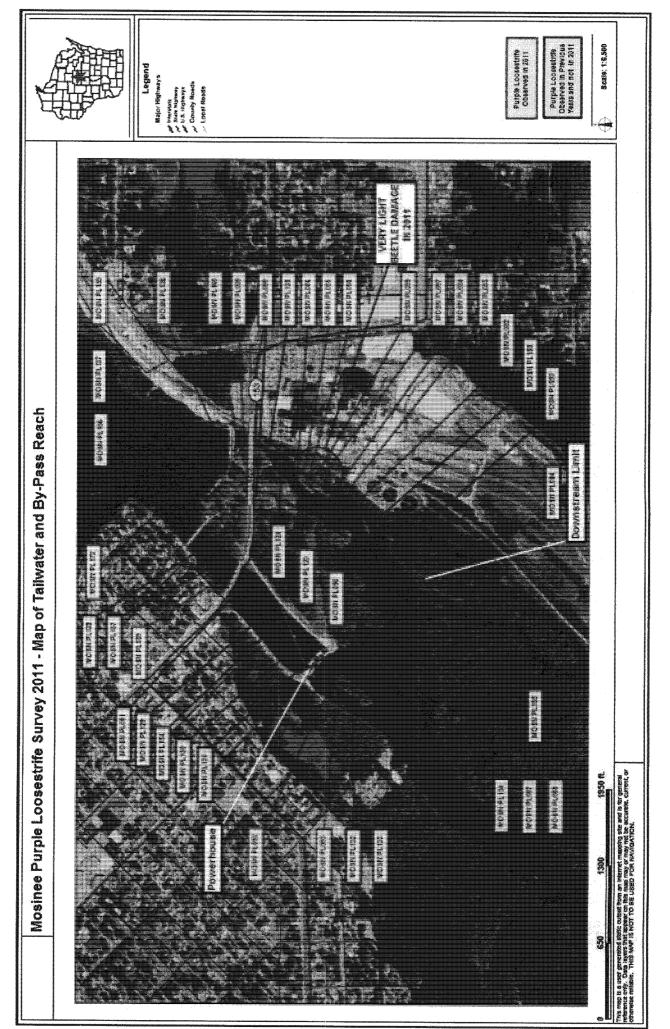


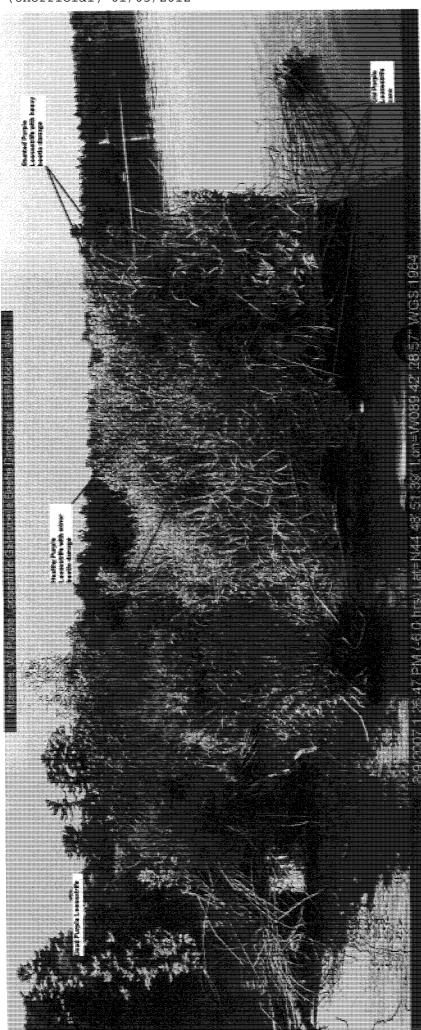


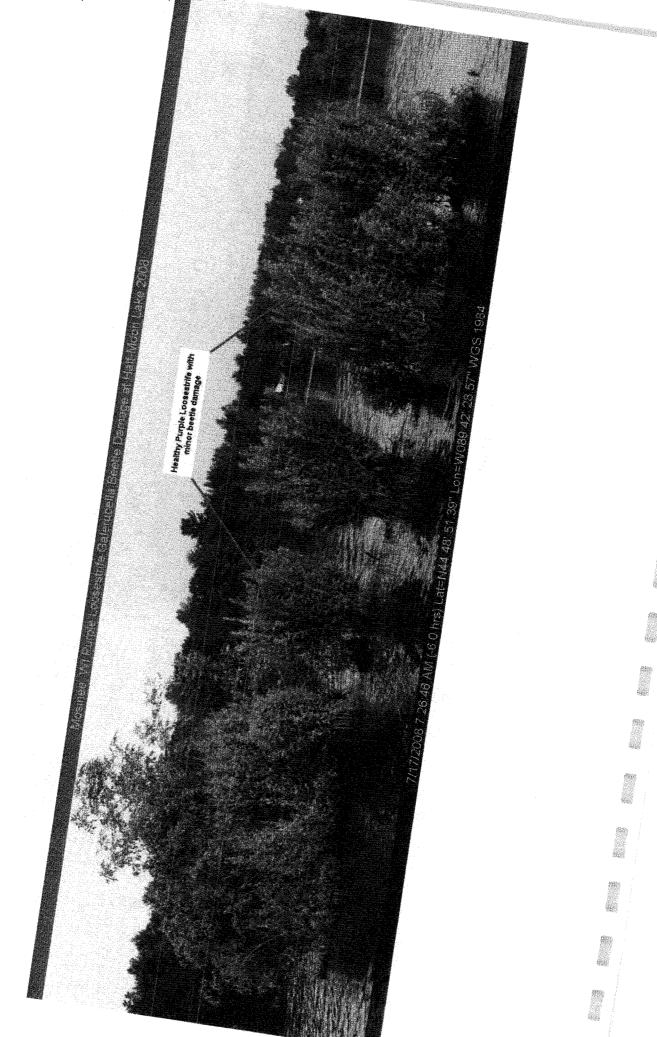


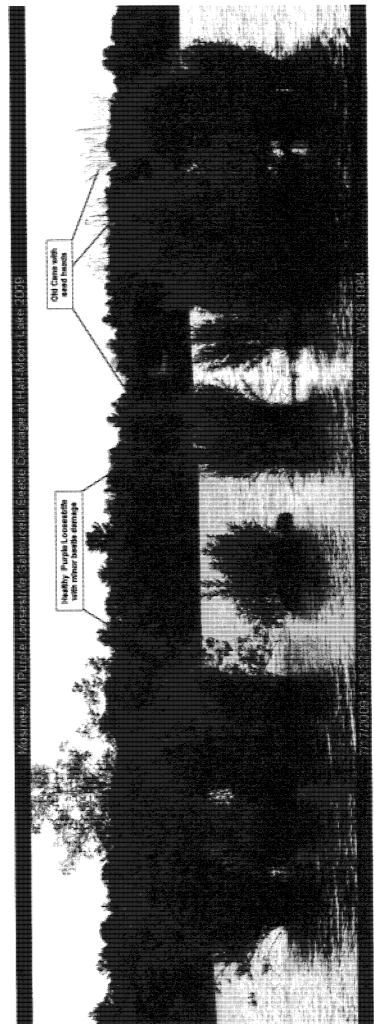


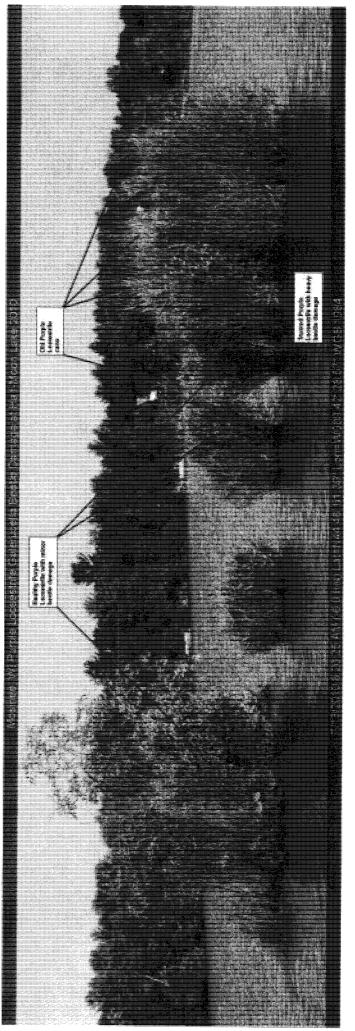


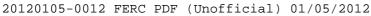


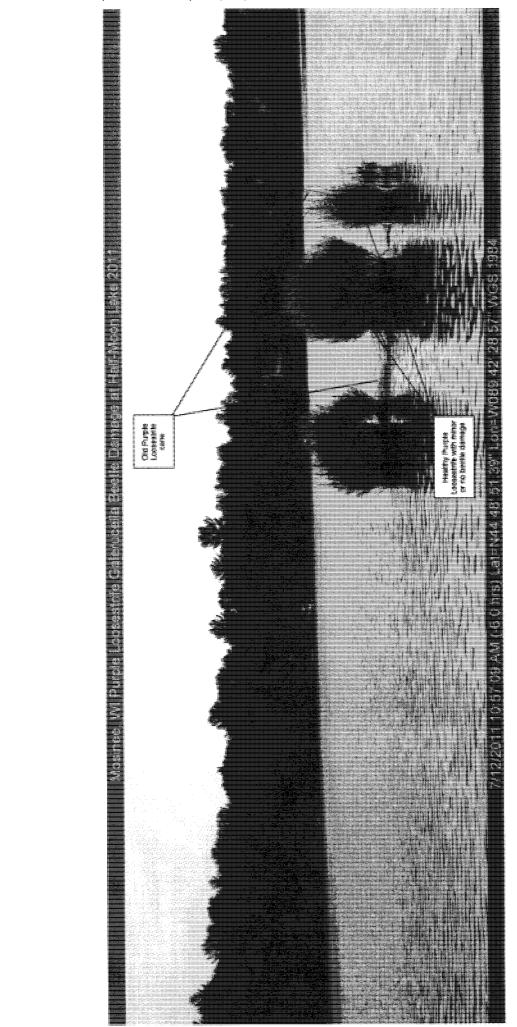






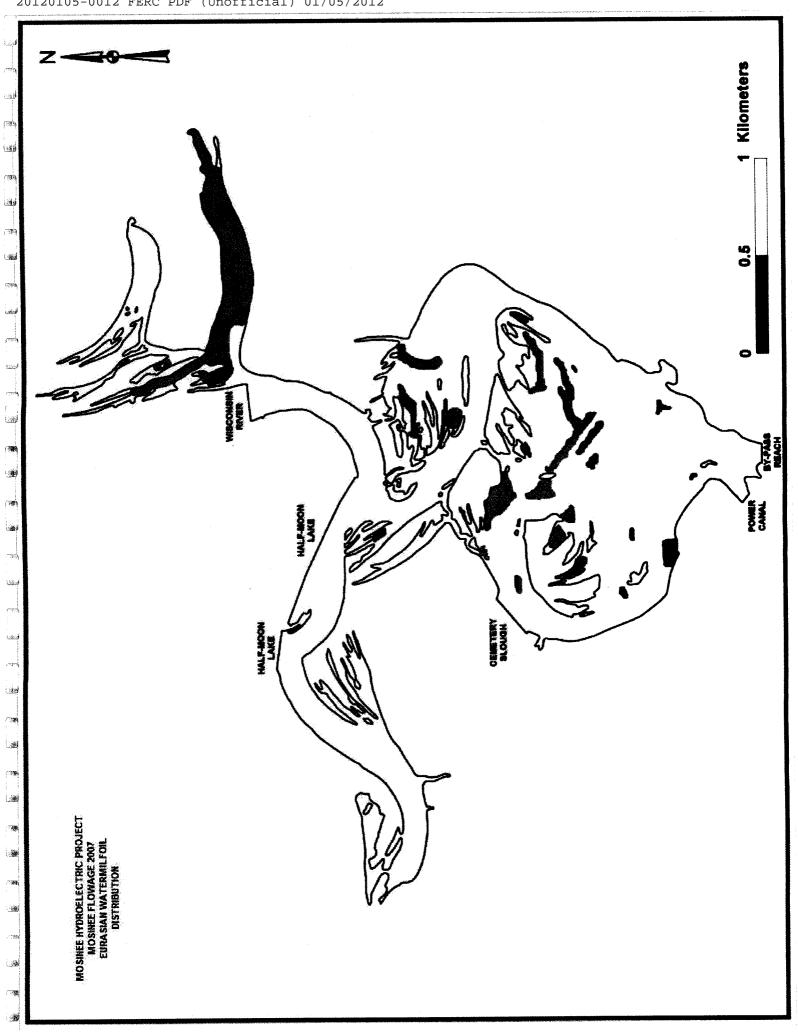




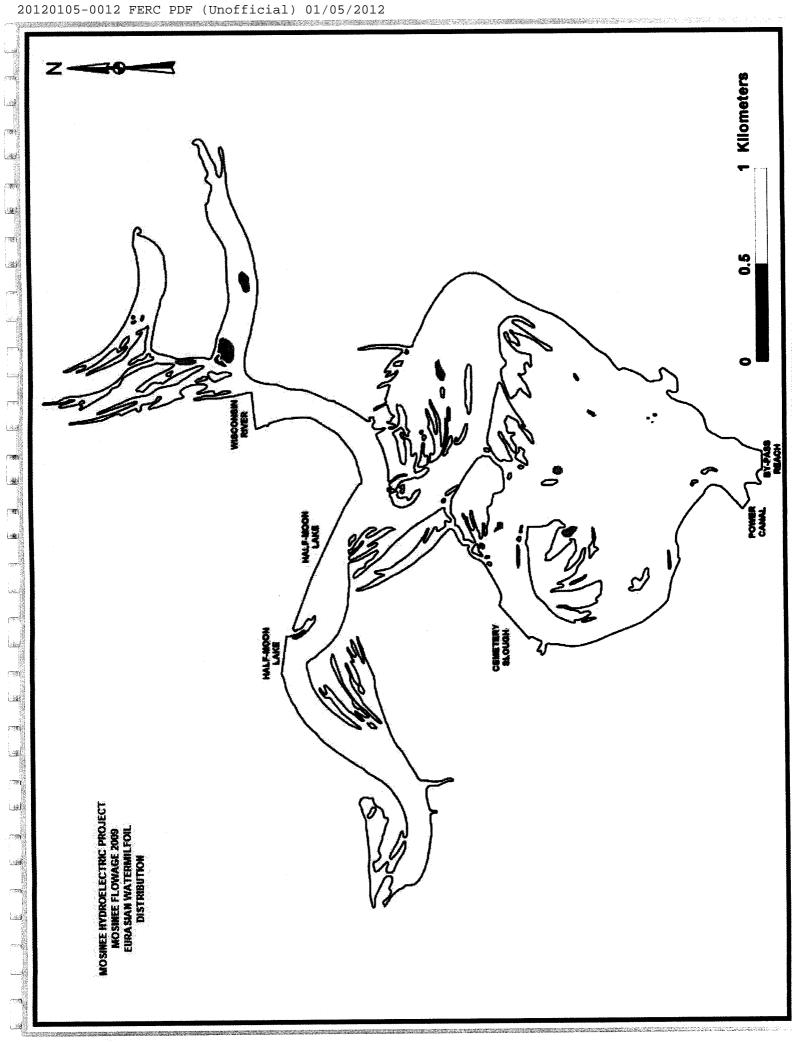


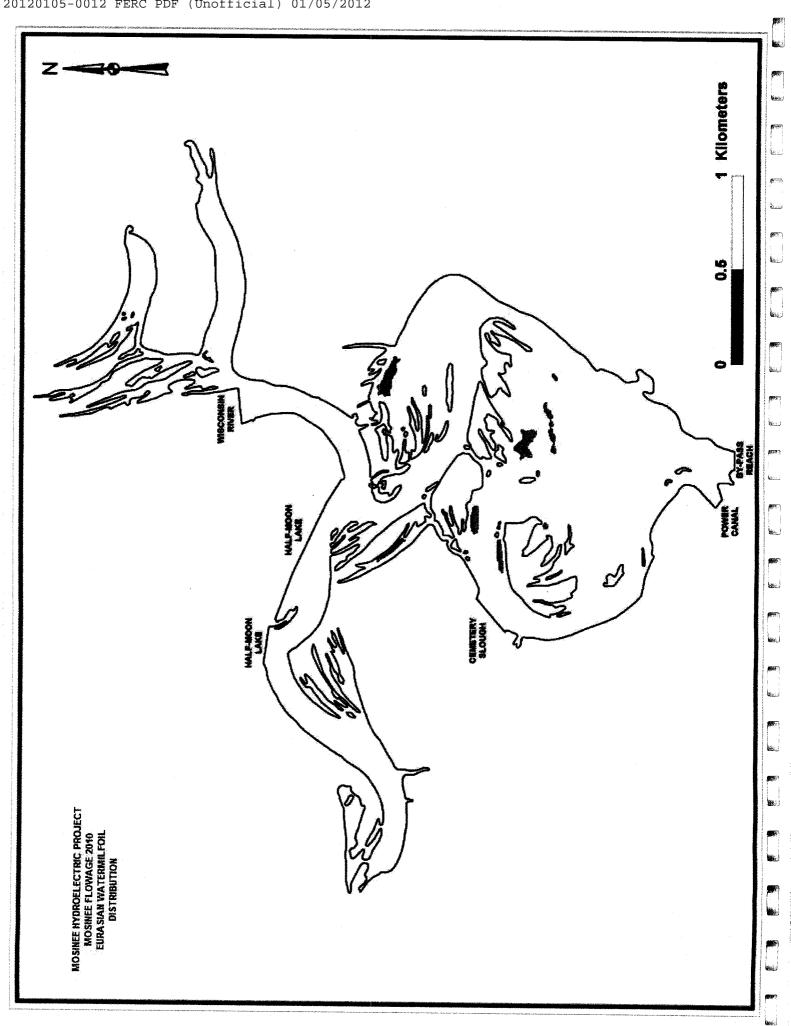
# APPENDIX B

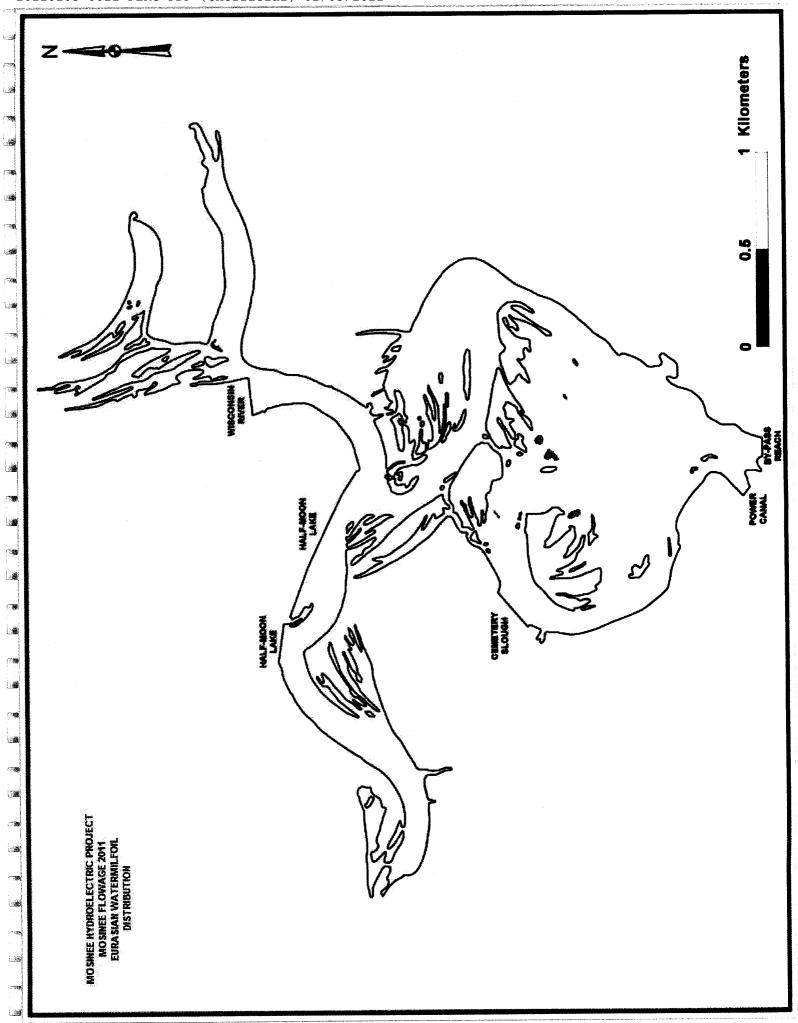
Eurasian Water Milfoil & Curly-leaf Pondweed Survey Results

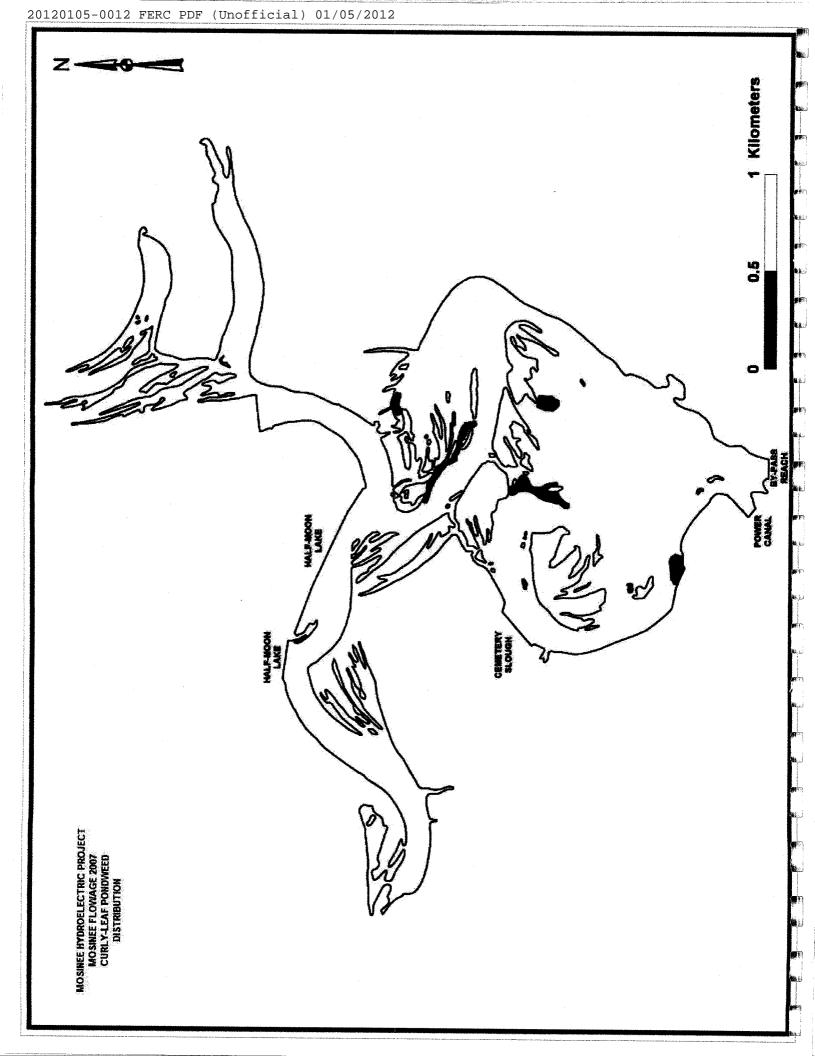


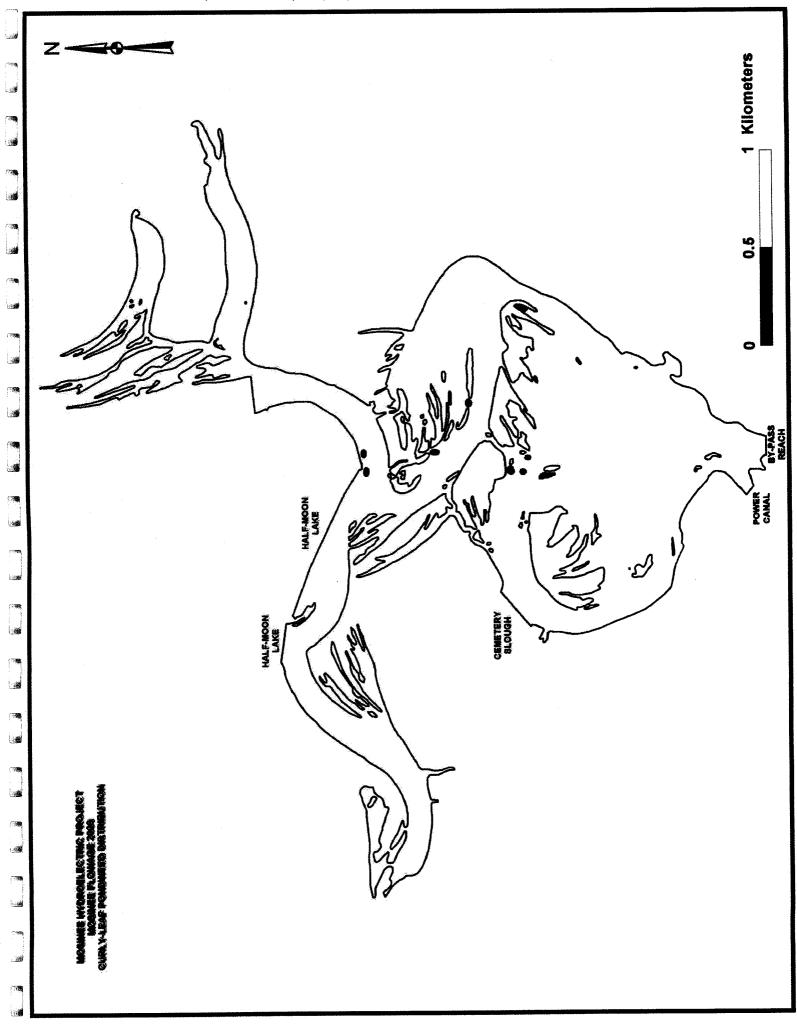


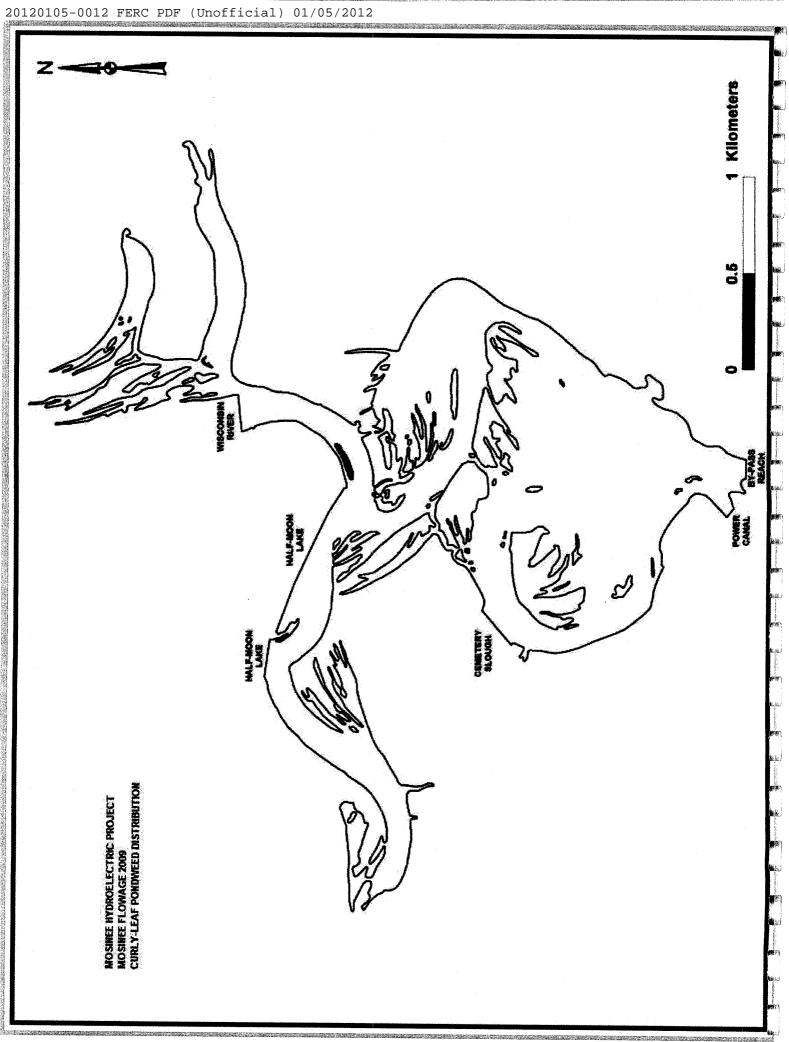


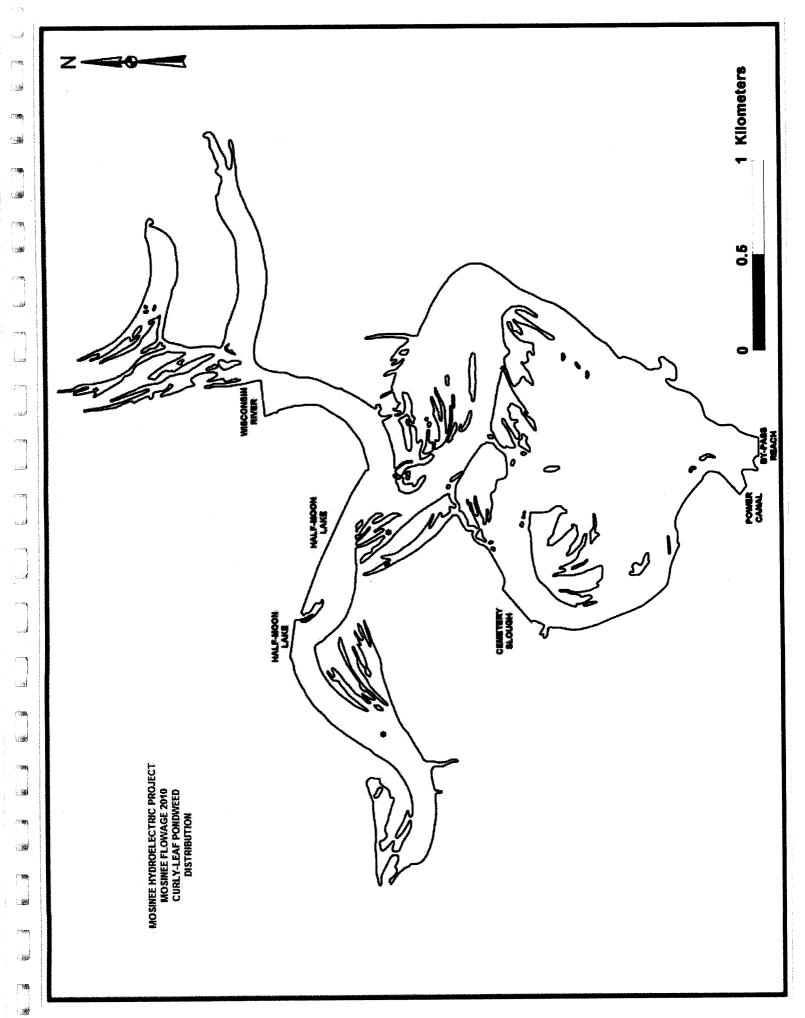


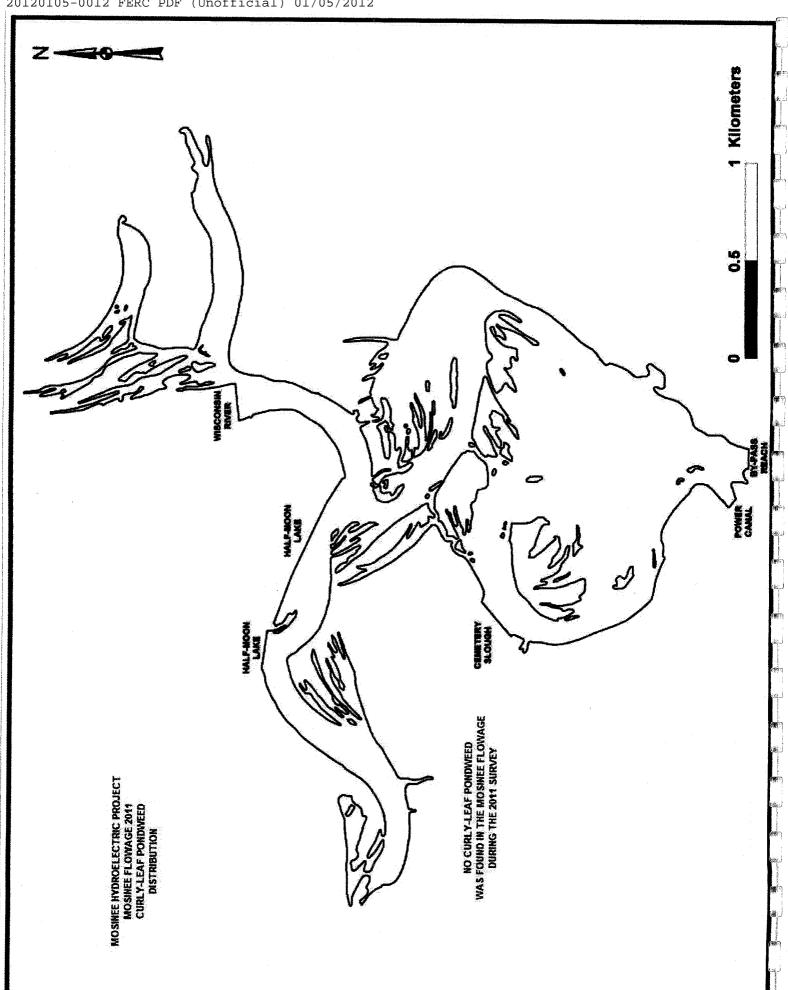


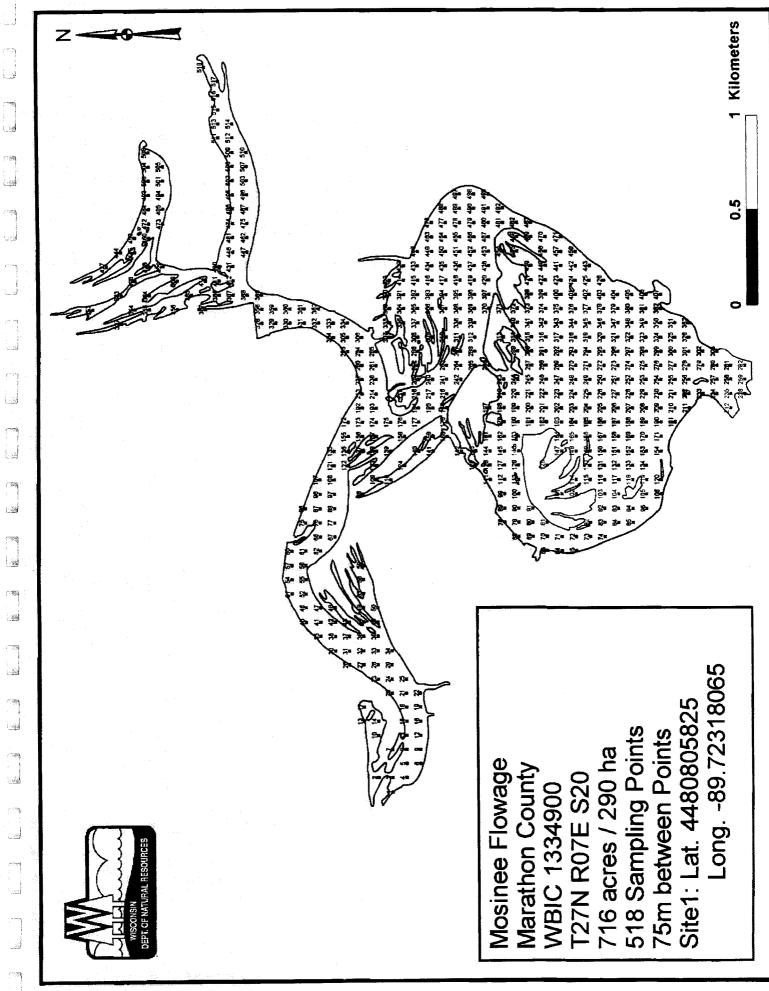












Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon Crew: RAL/CTM Datum: WGS84 NWM = Norther

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil N/A = Not Accessible

- M = Muck
- W = Woody Debris
- S = Sand
- G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
- Rk = Rock

Point	Latitude	Longitude				
1	N44.80805825	W89.72318065				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	_	М	-	-	-	N/A Shallow Muck
2008		М	-	-	-	N/A Shallow Muck
2009	-	М		-	-	N/A Shallow Muck
2010	-	-	-	-	-	N/A Shallow Muck
2011	-	-	-		-	N/A Shallow Muck

Point	Latitude	Longitude				
2	N44.80873111	W89.72222899				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	M	Pole Rake	0	0	No Weeds
2008	1	M	Pole Rake	0	0	No Weeds
2009	-	M	-	-	-	N/A Shallow Muck
2010	2	М	Pole Rake	0	0	No Weeds
2011	-	-		-	-	N/A Too Shallow

Point	Latitude	Longitude				
3	N44.80805595	W89.72223223				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	М	Pole Rake	0	0	No Weeds
2008	1	M,W	Pole Rake	0	0	No Weeds
2009	. 1	М	Pole Rake	0	0	No Weeds
2010	2	М	Pole Rake	0	0	No Weeds
2011	-	-	-	-	-	N/A Too Shallow

F	Point	Latitude	Longitude	1			
	4	N44.80738079	W89.72223547	1			
1	Year	Depth	Sediment	Method	EWM	CLP	Comments
	2007	2	М	Pole Rake	0	0	No Weeds
:	2008	2	M	Pole Rake	0	0	No Weeds
	2009	1	М	Pole Rake	0	0	No Weeds
	2010	3	M	Pole Rake	0	0	No Weeds
	2011	1	M	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
5	N44.80737848	W89.72128706	: (			
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M	Pole Rake	0	0	No Weeds
2008	2	M	Pole Rake	0	0	No Weeds
2009	2	М	Pole Rake	0	0	No Weeds
2010	3	M	Pole Rake	0	Ö	No Weeds
2011	2	М	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude	]			
6	N44.8067033	2W89.72129031	1			
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M	Pole Rake	0	0	No Weeds
2008	2	M	Pole Rake	0	0	No Weeds
2009	2	M	Pole Rake	0	0	No Weeds Secchi Reading 0.6', car
2010	2	M	Pole Rake	0	0	No Weeds Secchi Reading 0.9'
2011	2	M	Pole Rake	0	0	No Weeds Secchi Reading 0.75'

Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon Crew: RAL/CTM Datum: WGS84 NWM = Norther

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M = Muck W = Woody Debris

S = Sand

G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Rk = Rock

Point	Latitude	Longitude				
7	N44.80805132	2W89.72033539				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	_	M	-	-	-	N/A Shallow Muck
2008	-	M	-	-	-	N/A Shallow Muck
2009	-	М	-	-	-	N/A Shallow Muck
2010		-	-	•	-	N/A Shallow Muck
2011	-	-	-	_	-	N/A Shallow Muck

Point	Latitude	Longitude				
8	N44.80737616	W89.72033865				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M	Pole Rake	0	0	No Weeds
2008	2	М	Pole Rake	0	0	No Weeds
2009	2	М	Pole Rake	0	0	No Weeds
2010	3	M	Pole Rake	0	0	No Weeds
2011	2	М	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
9	N44.806701	W89.72034191				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	M	Pole Rake	0	0	No Weeds
2008	3	М	Pole Rake	0	0	No Weeds
2009	3	М	Pole Rake	0	0	No Weeds
2010	3	M	Pole Rake	0	0	No Weeds
2011	2	M	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
10	N44.80872415	W89.7193837				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	М	Pole Rake	0	0	No Weeds
2008	1	М	Pole Rake	0	0	No Weeds
2009	-	M	-	•	-	N/A Shallow Muck
2010	2	М	Pole Rake	0	0	No Weeds
2011	-	-	-	-	-	N/A Too Shallow

Point	Latitude	Longitude				
11	N44.80737384	W89.71939024				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	W/M	Pole Rake	0	0	No Weeds
2008	3	W	Pole Rake	0	0	No Weeds
2009	3	М	Pole Rake	0	0	No Weeds
2010	3	M	Pole Rake	0	0	No Weeds
2011	2	М	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
12	N44.80669868	W89.71939352				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	М	Pole Rake	0	0	No Weeds
2008	3	М	Pole Rake	0	0	No Weeds
2009	3	M/W	Pole Rake	0	0	No Weeds
2010	3	М	Pole Rake	0	0	No Weeds
2011	3	М	Pole Rake	0	0	No Weeds

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Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon EWM = Euras Crew: RAL/CTM CLP = Curly-le Datum: WGS84 NWM = Northe

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N/A =	Not /	Accessible
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M ≕ Muck

W = Woody Debris

S = Sand

G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Point	Latitude	Longitude				
13	N44.8093969	8W89.71843198				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	М	-	-	-	N/A Shallow Muck
2008	-	М	-		-	N/A Shallow Muck
2009	-	M	-	-	-	N/A Shallow Muck
2010	-	-	-	÷	-	N/A Shallow Muck
2011	-	-	-	-	-	N/A Shallow Muck

Point	Latitude	Longitude				
14	N44.80872182	W89.71843527				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	M	-	-	-	N/A Shallow Muck
2008	-	М	-	-	-	N/A Shallow Muck
2009	-	М	-	-	-	N/A Shallow Muck
2010	-	-	-	-	-	N/A Shallow Muck
2011	-	-		-	-	N/A Shallow Muck

Point	Latitude	Longitude				
15	N44.8073715	W89.71844184				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	W	Pole Rake	0	0	No Weeds
2008	3	M,W	Pole Rake	0	0	No Weeds
2009	3	M	Pole Rake	0	0	No Weeds
2010	4	M/W	Pole Rake	0	0	No Weeds
2011	3	М	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
16	N44.80669634	W89.71844512	1			
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	W/S	Pole Rake	0	0	No Weeds
2008	4	M	Pole Rake	0	0	No Weeds
2009	3	M/W	Pole Rake	0	0	No Weeds
2010	4	W	Pole Rake	0	0	No Weeds
2011	3	M/W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
17	N44.80939464	W89.71748354				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	M	-	-	-	N/A Shallow Muck
2008		M	-	-		N/A Shallow Muck
2009		M	-	-	-	N/A Shallow Muck
2010	-	-	-	-	-	N/A Shallow Muck
2011	-		-	-	-	N/A Shallow Muck

Point	Latitude	Longitude	I			
18	N44.80736916	W89.71749343				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	M	Pole Rake	0	0 ·	No Weeds
2008	4	M	Pole Rake	0	0	No Weeds
2009	4	M/W	Pole Rake	0	0	No Weeds
2010	5	W	Pole Rake	0	0	No Weeds
2011	4	W	Pole Rake	0	0	No Weeds

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- M = Muck
- W = Woody Debris
- S = Sand
- G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
- Rk = Rock

Point	Latitude	Longitude					
19	N44.806694	W89.71749672					
Year	Depth	Sediment	Method	EWM	CLP	Comments	
2007	3	W/S	Pole Rake	0	0	No Weeds	
2008	3	W	Pole Rake	0	0	No Weeds	
2009	3	M/W	Pole Rake	0	0	No Weeds	
2010	4	W	Pole Rake	0	0	No Weeds	
2011	3	W	Pole Rake	0	0	No Weeds	

Point	Latitude	Longitude				
20	N44.80804197	W89.71654171				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	W/M	Pole Rake	0	0	No Weeds
2008	4	M	Pole Rake	0	0	No Weeds
2009	3	S/W	Pole Rake	0	0	No Weeds
2010	4	S	Pole Rake	0	0	No Weeds
2011	3	w	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
21	N44.80736681	W89.71654502				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	W/M	Pole Rake	0	0	No Weeds
2008	4	M	Pole Rake	0	0	No Weeds
2009	4	M	Pole Rake	0	0	No Weeds
2010	5	M	Pole Rake	0	0	No Weeds
2011	4	M	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
22	N44.80669165	W89.71654833				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	W/S	Pole Rake	0	0	No Weeds
2008	3	S,W	Pole Rake	0	0	No Weeds
2009	2	S	Pole Rake	0	0	No Weeds
2010	3	W	Pole Rake	0	0	No Weeds
2011	2	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
23	N44.80871477	W89.71558998				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4 .	R	Pole Rake	0	0	No Weeds
2008	4	S,W	Pole Rake	0	0	No Weeds
2009	4	S/W	Pole Rake	0	0	No Weeds
2010	5	w	Pole Rake	0	0	No Weeds
2011	4	W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
24	N44.80803961	W89.71559329				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	M	Pole Rake	0	0	No Weeds
2008	5	M	Pole Rake	0	0	No Weeds
2009	5	M	Pole Rake	0	0	No Weeds
2010	5	M	Pole Rake	0	0	No Weeds
2011		W	Pole Rake	0	0	No Weeds

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W = Woody Debris

S = Sand

G = Gravel

No Weeds No Weeds No Weeds No Weeds

No Weeds

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Comments

Rk = Rock

Ρ

	Point	Latitude	Longitude			
Ι	25	N44.80736445	W89.71559661			
E	Year	Depth	Sediment	Method	ÈWM	CL
Ε	2007	5	М	Pole Rake	- 0	0
	2008	4	M	Pole Rake	0	0
	2009	5	W	Pole Rake	0	0
	2010	5	W	Pole Rake	0	0
	2011	4	Μ	Pole Rake	0	0

Point	Latitude	Longitude				
26	N44.81006272	W89.71463489				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S	Pole Rake	0	0	No Weeds
2008	2	S	Pole Rake	0	0	No Weeds
2009	3	G/S	Pole Rake	0	0	No Weeds
2010	2	S	Pole Rake	0	0	No Weeds
2011	2	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
27	N44.80938756	W89.71463822				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007		W	Pole Rake	0	0	No Weeds
2008	5	M	Pole Rake	0	0	No Weeds
2009	5	W	Pole Rake	0	0	No Weeds
2010	6	M	Pole Rake	0	0	No Weeds
2011	5	М	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
28	N44.8087124	W89.71464155	1			
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	M	Pole Rake	0	0	No Weeds
2008	5	M	Pole Rake	0	0	No Weeds
2009	5	M	Pole Rake	0	0	No Weeds
2010	5	M	Pole Rake	0	0	No Weeds
2011	5	M	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
29	N44.80803725	W89.71464488				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	M/S	Pole Rake	0	0	No Weeds
2008	5	M	Pole Rake	0	0	No Weeds
2009	5	W	Pole Rake	0	0	No Weeds
2010	5	M	Pole Rake	0	0	No Weeds
2011	4	M	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude	1			
30	N44.81073551	W89.7136831	1			
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	W and	Pole Rake	0	0	No Weeds
2008	5	S,W	Pole Rake	0	0	No Weeds
2009	5	W	Pole Rake	0	0	No Weeds
2010	5	W	Pole Rake	0	0	No Weeds
2011	5	M/W	Pole Rake	0	0	No Weeds

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Point	Latitude	Longitude				
31	N44.81006035	W89.71368644	l			
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	M	Pole Rake	0	0	No Weeds
2008	5	M	Pole Rake	0	0	No Weeds
2009	5	М	Pole Rake	0	0	No Weeds
2010	6	M	Pole Rake	0	0	No Weeds
2011	5	М	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
32 1	V44.80938519	W89.71368978				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	М	Pole Rake	0	0	No Weeds
2008	5	М	Pole Rake	0	0	No Weeds
2009	5	M	Pole Rake	0	0	No Weeds
2010	5	M	Pole Rake	0	0	No Weeds
2011	5	M	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
33	N44.80871003	W89.71369312				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	W/M	Pole Rake	0	0	No Weeds
2008	4	W	Pole Rake	0	0	No Weeds
2009	5	М	Pole Rake	0	0	No Weeds
2010	5	W	Pole Rake	0	0	No Weeds
2011	4	М	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
34	N44.80803487	W89.71369646				•
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S	Pole Rake	0	0	No Weeds
2008	3	S	Pole Rake	0	0	No Weeds
2009	3	S	Pole Rake	0	0	No Weeds
2010	4	W	Pole Rake	0	0	No Weeds
2011	3	S/W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude					
35	N44.81140828	W89.71273128					
Year	Depth	Sediment	Method	EWM	CLP	Comments	
2007	5	W	Pole Rake	0	0	No Weeds	
2008	6	W	Pole Rake	0	0	No Weeds	
2009	5	W	Pole Rake	0	0	No Weeds Secchi Reading 1	.2'
2010		М	Pole Rake	0	0	No Weeds Secchi Reading	1.5'
2011	5	М	Pole Rake	0	0	No Weeds Secchi Reading	1.8'

Point	Latitude	Longitude				
36	N44.81073312	W89.71273463				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	W/S	Pole Rake	0	0	No Weeds
2008		W	Pole Rake	0	0	No Weeds
2009	5	S	Pole Rake	0	0	No Weeds
2010	6	М	Pole Rake	0	0	No Weeds
2011	5	М	Pole Rake	0	0	No Weeds

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Point	Latitude	Longitude				
37	N44.81005797	W89.71273799				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	W	Pole Rake	0	0	No Weeds
2008	4	S	Pole Rake	0	0	No Weeds
2009	4	M	Pole Rake	0	0	No Weeds
2010	5	M/W	Pole Rake	0	0	No Weeds
2011	4	W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
38	N44.80938281	W89.71274134				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	S	Pole Rake	0	0	No Weeds
2008	1	S	Pole Rake	0	0	No Weeds
2009	1	S	Pole Rake	0	0	No Weeds
2010	2	S	Pole Rake	0	0	No Weeds
2011	1	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
39	N44.80870765	W89.71274469				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	S	Pole Rake	0	0	No Weeds
2008	2	S	Pole Rake	0	0	No Weeds
2009	1	S	Pole Rake	0	0	No Weeds
2010	3	S	Pole Rake	0	0	No Weeds
2011	2	S	Pole Rake	0	0.	No Weeds

Point	Latitude	Longitude				
40	N44.81208105	W89.71177945				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	6	W	Pole Rake	0	0	No Weeds
2008	6		-	-	-	N/A No Reading
2009	6	-	-	-	-	N/A No Reading
2010	6	-	-	-	-	N/A No Reading
2011	6		-	-	-	N/A No Reading

Point	Latitude	Longitude				
41	N44.81140589	W89.71178281				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	6	M	Pole Rake	0	0	No Weeds
2008	6		-	-	-	N/A No Reading
2009	6	-	-	-		N/A No Reading
2010	6.	-	-	-	-	N/A No Reading
2011	6	- 1	-	-	-	N/A No Reading

Point	Latitude	Longitude				
42	N44.81073074	W89.71178617				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S/W	Pole Rake	0	0	No Weeds
2008	3	S	Pole Rake	0	0	No Weeds
2009	3	S/W	Pole Rake	0	0	No Weeds
2010	4	W	Pole Rake	0	0	No Weeds
2011	3	S	Pole Rake	0	0	No Weeds

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- W = Woody Debris
- S = Sand
- G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.) Rk = Rock

Latitude Longitude Point 43 N44.81005558 W89.71178953 Comments Sediment Method EWM CLP Depth Year 0 No Weeds М Pole Rake 0 2007 1 2008 1 М Pole Rake 0 0 No Weeds N/A Shallow Muck 2009 Μ -\_ 2010 2 Μ Pole Rake 0 0 -N/A Too Shallow 2011 -----

Point	Latitude	Longitude				
44	N44.80938042	W89.7117929				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	-		-	-	N/A Land
2008	-	-	-	-	-	N/A Land
2009	-	-	-	_	-	N/A Land
2010	-	-		-	-	N/A Land
2011	-	-	-	-	-	N/A Land

Point	Latitude	Longitude				
45	N44.80870526	W89.71179626				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	M	Pole Rake	0	0	No Weeds
2008	2	M	Pole Rake	0	0	No Weeds
2009	3 .	M	Pole Rake	0	0	No Weeds
2010	3	M	Pole Rake	0	0	No Weeds
2011	2	M	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
46	N44.81207865	W89.71083096				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	6	M	Pole Rake	0	0	No Weeds
2008	6		-	-	-	N/A No Reading
2009	6	-	-	-	-	N/A No Reading
2010	6	· -	-	-	-	N/A No Reading
2011	6		-	-	-	N/A No Reading

Point	Latitude	Longitude				
47	N44.8114035	W89.71083434				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	M	Pole Rake	0	0	No Weeds
2008	3	S,W	Pole Rake	0	0	No Weeds
2009	3	S	Pole Rake	0	0	No Weeds
2010	3	S/W	Pole Rake	0	0	No Weeds
2011	3	G/S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
48	N44.81072834	W89.71083771				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	M	Pole Rake	0	0	No Weeds
2008	1	М	Pole Rake	0	0	No Weeds
2009	-	М	-	-	-	N/A Shallow Muck
2010	2	М	Pole Rake	0	0	-
2011	-	-	-	-	-	N/A Too Shallow

 Invasive Species Point Intercept Survey Report

 Project/Lake: Mosinee/Mosinee Flowage (518 Sample points)

 Date: 2007 thru 2011

 WBIC: 1334900

 County: Marathon
 EWM = Euras

 Crew: RAL/CTM
 CLP = Curly-I

 Datum: WGS84
 NWM = North

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil N/A = Not Accessible

M = Muck

W = Woody Debris

S = Sand

G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Comments

Rk ≖ Rock

No Weeds

No Weeds

No Weeds

No Weeds

No Weeds

- L	Point	Latitude	Longitude			
I	49	N44.80937802	W89.71084446			
[	Year	Depth	Sediment	Method	EWM	CLP
I	2007	2	M	Pole Rake	0	0
	2008	2	M,S	Pole Rake	0	0
[	2009	1	M/S	Pole Rake	0	0
	2010	2	M	Pole Rake	0	0
	2011	2	M	Pole Rake	0	0

Point	Latitude	Longitude				
50	N44.80870286	W89.71084783				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	S	Pole Rake	0	0	No Weeds
2008	1	Ś	Pole Rake	0	0	No Weeds
2009	1	S/W	Pole Rake	0	0	No Weeds
2010	1	S	Pole Rake	0	0	No Weeds
2011	1	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
51	N44.81275141	W89.70987909				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	6	S	Pole Rake	0	0	No Weeds
2008	6	-	-	-	-	N/A No Reading
2009	6	-	-	-	=	N/A No Reading
2010	6	-	-	-	-	N/A No Reading
2011	6	-	-	+	-	N/A No Reading

Point	Latitude	Longitude	]			
52	N44.81207625	W89.70988248				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	6	W	Pole Rake	0	0	No Weeds
2008	6	-	-	-	-	N/A No Reading
2009	6	-	-	-	-	N/A No Reading
2010	6	-		-	-	N/A No Reading
2011	6	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
53	N44.80937562	W89.70989602				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M	Pole Rake	0	0	No Weeds
2008	2	M,S	Pole Rake	0	0	No Weeds
2009	2	M	Pole Rake	0	0	No Weeds
2010	3	M	Pole Rake	0	0	No Weeds
2011	2	M	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
54	N44.81274899	W89.7089306				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	7	-	1. <b>_</b>	-	-	N/A No Reading
2008	7	-	-	-	-	N/A No Reading
2009	7	-	-;	-	-	N/A No Reading
2010	7	-	-	-	-	N/A No Reading
2011	7	-	-	-	-	N/A No Reading

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Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon Crew: RAL/CTM Datum: WGS84 NWM = North

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

- N/A = Not Accessible
- M = Muck W = Woody Debris
- S = Sand
- G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
- Rk = Rock

Point Latitude Longitude 55 N44.81207384 W89.70893399 Comments EWM CLP Method Year Depth Sediment Pole Rake 0 0 No Weeds 2007 3 S/W No Weeds 0 Pole Rake 0 2008 4 s No Weeds S Pole Rake 0 0 2009 3 Pole Rake 0 0 No Weeds 4 S 2010 S Pole Rake 0 0 No Weeds 2011 3

Point	Latitude	Longitude				
56	N44.8093732	W89.70894758				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M	Pole Rake	0	0	No Weeds
2008	2	М	Pole Rake	0	0	No Weeds
2009	2	M	Pole Rake	0	0	No Weeds
2010	2	S	Pole Rake	0	0	No Weeds
2011	1	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
57	N44.81274657	W89.7079821				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	10	-	-	-	-	N/A No Reading
2008	10	_	-	-	-	N/A No Reading
2009	10	-	-	-	-	N/A No Reading
2010	10	-	-	-	-	N/A No Reading
2011	10	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
58	N44.81207141	W89.70798551				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	9	-	- ]	-	-	N/A No Reading
2008	9	-	-	-	-	N/A No Reading
2009	9	-	-	-	-	N/A No Reading
2010		-		-	-	N/A No Reading
2011	9	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
59	N44.80937078	W89.70799914				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	-	-	-	-	N/A Land
2008	-	-	-	-	-	N/A Land
2009		-	-	-	-	N/A Land
2010	-	-	-	-	-	N/A Land
2011	-	-	-	-	-	N/A Land

Point	Latitude	Longitude				
60	N44.81274414	W89.70703361				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	9	-	-	-	-	N/A No Reading
2008	9	-	-	-	-	N/A No Reading
2009	9	-	-	-	-	N/A No Reading
2010		-		-	- 1	N/A No Reading
2011	9	-	-	-	-	N/A No Reading

Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon EWM = Euras Crew: RAL/CTM CLP = Curly-H Datum: WGS84 NWM = North

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

N/A =	Not	Access	ible
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- M ≃ Muck
- W = Woody Debris

S = Sand

G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.) Rk = Rock

RK = RC

Point	Latitude	Longitude				
61	N44.81206898	W89.70703702				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	10	-	-	-	-	N/A No Reading
2008	10	-	-	-	-	N/A No Reading
2009	10	-		-	-	N/A No Reading
2010	10	-	-	-	-	N/A No Reading
2011	10	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
62	N44.81139383	W89.70704044				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	12	-	-	=	-	N/A No Reading
2008	12	-	-	-	-	N/A No Reading
2009	12	-	-	-	-	N/A No Reading
2010	12	-	-	-	-	N/A No Reading
2011	12	-	· -	-	-	N/A No Reading

Point	Latitude	Longitude				
63	N44.80059129	W89.70709511				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	W	Pole Rake	0	0	No Weeds
2008	4	S	Pole Rake	0	0	No Weeds
2009	2	W	Pole Rake	0	0	No Weeds
2010	2	W	Pole Rake	0	0	No Weeds
2011	2	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
64	N44.79991613	W89.70709853				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	8	- :	1 1 <b>.</b>	-	-	N/A No Reading
2008	8	<u> </u>	-	-	-	N/A No Reading
2009	8		-	-	-	N/A No Reading
2010	8		- "-	-	-	N/A No Reading
2011	8	•		-	-	N/A No Reading

Point	Latitude	Longitude				
65	N44.79924097	W89.70710195				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	8	•	-	-	-	N/A No Reading
2008	8	- 1		-		N/A No Reading
2009	8	- (	-	_	-	N/A No Reading
2010	8		-	-	-	N/A No Reading
2011	8		-	-	-	N/A No Reading

Point	Latitude	Longitude				
66	N44.81139139	W89.70609197				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	10	-	-	-	_	N/A No Reading
2008	10	-		-	-	N/A No Reading
2009	10	-	-	-	-	N/A No Reading
2010	10	<b>-</b>	-	-	-	N/A No Reading
2011	10		_	-	-	N/A No Reading

Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon Crew: RAL/CTM Datum: WGS84 NWM = North

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil N/A = Not Accessible

- M = Muck
- W = Woody Debris

S = Sand

- G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Rk = Rock

Point	Latitude	Longitude				
67	N44.81071623	W89.7060954				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	10	-	-	-	-	N/A No Reading
2008	10	-	-	-	-	N/A No Reading
2009	10	-	-	-	-	N/A No Reading
2010	10	-	-	-	-	N/A No Reading
2011	10	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
68	N44.80193917	W89.70613996				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	7	-	-	-	-	N/A No Reading
2008	7	-	-	-	-	N/A No Reading
2009	7	-	-	-	-	N/A No Reading
2010		-	-	-	-	N/A No Reading
2011	7	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
69	N44.80126401	W89.70614339				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	7	-	-	-	-	N/A No Reading
2008	7	-	-	-	-	N/A No Reading
2009	7	-	-	_	-	N/A No Reading
2010	7	-	- 1	-	-	N/A No Reading
2011	7	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
70	N44.80058885	W89.70614682				· · · · · · · · · · · · · · · · · · ·
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S	Pole Rake	0	0	No Weeds
2008	4	S,W	Pole Rake	0	0	No Weeds
2009	5	W	Pole Rake	0	0	No Weeds
2010	5	S	Pole Rake	0	0	No Weeds
2011	4	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
71	N44.79991369	W89.70615025				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	S	Pole Rake	0	0	No Weeds
2008	5	S	Pole Rake	0	0	No Weeds
2009	5	S	Pole Rake	0	0	No Weeds
2010		M/S	Pole Rake	0	0	No Weeds
2011		S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
72	N44.79923853	W89.70615367				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	W	Pole Rake	0	0	No Weeds
2008	5	S,W	Pole Rake	0	0	No Weeds
2009	4	Ŵ	Pole Rake	0	0	No Weeds Secchi Reading 2.5'
2010	6	S/W	Pole Rake	0	0	No Weeds Secchi Reading 2.1'
2011		S	Pole Rake	0	0	No Weeds Secchi Reading 2.6'

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Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon EWM = Euras Crew: RAL/CTM CLP = Curly-I Datum: WGS84 NWM = North

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

N/A =	Not	Accessi	ible
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M = Muck

W = Woody Debris

S = Sand

G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.) Rk = Rock

Point	Latitude	Longitude				
73	N44.79856337	W89.7061571				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	7	-	-	-	-	N/A No Reading
2008	7	-	-	-	-	N/A No Reading
2009	7	-	-	-	·-	N/A No Reading
2010	7	-	-	-	-	N/A No Reading
2011	7	<b>-</b> 12	-	-	-	N/A No Reading

Point	Latitude	Longitude				
74	N44.79788821	W89.70616053				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	9	-	-	-	-	N/A No Reading
2008	9	-	-	-	-	N/A No Reading
2009	9	-	-	_	-	N/A No Reading
2010	9	-	-	-	-	N/A No Reading
2011	9	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
75	N44.8120641	W89.70514006				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	M	Pole Rake	0	0	No Weeds
2008	3	S.W	Pole Rake	0	0	No Weeds
2009	3	M/S	Pole Rake	0	0	No Weeds
2010	3	S	Pole Rake	0	0	No Weeds
2011	2	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
76	N44.81138895	W89.7051435				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	S	Pole Rake	0	0	No Weeds
2008	5	S	Pole Rake	0	0	No Weeds
2009	5	S	Pole Rake	0	0	No Weeds
2010	8	S	Pole Rake	0	0	No Weeds
2011	6	S/W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
77	N44.81071379	W89.70514694				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	10	- 1 1	-	-	-	N/A No Reading
2008	10	-	-	-	-	N/A No Reading
2009	10	-		•	-	N/A No Reading
2010	10	-	-	-	-	N/A No Reading
2011	10	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
78	N44.80261188	W89.70518821				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	6	M	Pole Rake	0	0	No Weeds
2008	6		-	-	-	N/A No Reading
2009	6	-	-	-	-	N/A No Reading
2010	6	-	-	-	-	N/A No Reading
2011	6	-	-	-	-	N/A No Reading

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Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon Crew: RAL/CTM Daturn: WGS84 NWM = Norther

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

- N/A = Not Accessible M = Muck
- W = Woody Debris
- S = Sand
- G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Point	Latitude	Longitude				
79	N44.80193673	W89.70519165				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	W/M	Pole Rake	0	0	No Weeds
2008	5	M,W	Pole Rake	0	0	-
2009	4	S	Pole Rake	0	0	No Weeds
2010	6	M	Pole Rake	0	0	No Weeds
2011	4	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
80	N44.80126157	W89.70519508				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	M	Pole Rake	0	0	No Weeds
2008	5	S,W	Pole Rake	0	0	No Weeds
2009	4	S	Pole Rake	0	0	No Weeds
2010	6	M	Pole Rake	0	0	No Weeds
2011	4	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
81	N44.80058641	W89.70519852				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	W	Pole Rake	0	0	No Weeds
2008	4	S,W	Pole Rake	0	0	No Weeds
2009	3	S	Pole Rake	0	0	No Weeds
2010	2	S/W	Pole Rake	0	0	No Weeds
2011	3	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
82	N44.79856093	W89.70520884				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	S	Pole Rake	0	0	No Weeds
2008	2	S	Pole Rake	0	0	No Weeds
2009	1	S	Pole Rake	0	0	No Weeds
2010	3	S	Pole Rake	0	0	No Weeds
2011	1	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
83	N44.79788577	W89.70521227				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	W	Pole Rake	0	0	No Weeds
2008	5	M,S	Pole Rake	0	0	No Weeds
2009	4	M	Pole Rake	0	0	No Weeds
2010	7	S	Pole Rake	0	0	No Weeds
2011	4	M/W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
84	N44.79721061	W89.70521571				
Year	Depth	Sediment	Method	EWM	ÇLP	Comments
2007	7	-	-	-	-	N/A No Reading
2008	7	-	-	-	-	N/A No Reading
2009		-	-	-	-	N/A No Reading
2010		-	-	-	-	N/A No Reading
2011	7	-	-	-	-	N/A No Reading

Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon Crew: RAL/CTM Datum: WGS84 EWM = Northe

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

EWM

0

0

0

0

0

N/A = Not Accessible M = Muck

W = Woody Debris

S = Sand

G = Gravel

No Weeds

No Weeds

No Weeds

No Weeds

No Weeds

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Comments

Rk = Rock

CLP

0

0

0

0

0

	Point	Latitude	Longitude		
I	85	N44.79653545	W89.70521915		
	Year	Depth	Sediment	Method	
I	2007	5	W	Pole Rake	
	2008	5	W	Pole Rake	
	2009	5	W	Pole Rake	
	2010	7	S	Pole Rake	
	2011	5	W	Pole Rake	

Point	Latitude	Longitude				
86	N44.81206165	W89.70419157				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	W	Pole Rake	0	0	No Weeds
2008	4	S,W	Pole Rake	0	0	No Weeds
2009	4	S/W	Pole Rake	0	0	No Weeds
2010	W	S/W	Pole Rake	0	0	No Weeds
2011	4	W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
87	N44.81138649	W89.70419502				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	7	-	-	-	-	N/A No Reading
2008	7	-	-	-	-	N/A No Reading
2009	7	- 1	-	-	-	N/A No Reading
2010	7	-		-	-	N/A No Reading
2011	7	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
88	N44.81071133	W89.70419848				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	10	-		-		N/A No Reading
2008	10	-	-	-		N/A No Reading
2009	10	-	-	-	-	N/A No Reading
2010	10	-	-	-	-	N/A No Reading
2011	10	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
89	N44.80260943	W89.70423988				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	M	Pole Rake	0	0	No Weeds
2008	6	M	Pole Rake	0	0	No Weeds
2009	5	M	Pole Rake	0	0	No Weeds
2010	7	M	Pole Rake	0	0	No Weeds
2011	5	M/S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
90	N44.80193427	W89.70424333				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	M/W	Pole Rake	0	0	No Weeds
2008	4	M	Pole Rake	0	0	No Weeds
2009	4	M/W	Pole Rake	0	0	No Weeds
2010	6	M	Pole Rake	0	0	No Weeds
2011	4	S	Pole Rake	0	0	No Weeds

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Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon Crew: RAL/CTM Datum: WGS84 NWM = North

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil N/A = Not Accessible

- M = Muck
- W = Woody Debris
- S = Sand
- G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Comments

				Longitude	Latitude	Point
				W89.70424678	N44.80125911	91
	CLP	EWM	Method	Sediment	Depth	Year
No Weed	0	0	Pole Rake	S	3	2007
No Weed	0	0	Pole Rake	M,S	4	2008
No Weed	0	0	Pole Rake	S	3	2009
No Weed	0	0	Pole Rake	S/W	6	2010
No Weed	0	0	Pole Rake	S/W	3	2011

Point	Latitude	Longitude				
92	N44.79788332	W89.70426402				· · · · · · · · · · · · · · · · · · ·
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	M	Pole Rake	0	0	No Weeds
2008	3	S,W	Pole Rake	0	0	-
2009	3	S	Pole Rake	0	0	No Weeds
2010	5	M/S	Pole Rake	0	0	No Weeds
2011	3	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
93	N44.79720816	W89.70426747				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S	Pole Rake	1	0	-
2008	3	M,S	Pole Rake	1	0	-
2009	3	W	Pole Rake	0	0	-
2010	5	S	Pole Rake	0	0	-
2011	3	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
94	N44.796533	W89.70427092				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	7	-	-	-	-	N/A No Reading
2008	7	-	-	-	-	N/A No Reading
2009	7	-	-	_	-	N/A No Reading
2010	7	-	-	-	0	N/A No Reading
2011	7	-	-	-	0	N/A No Reading

Point	Latitude	Longitude				
95	N44.79585784	W89.70427437				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	S	Pole Rake	0	0	No Weeds
2008	2	W	Pole Rake	1	0	-
2009	3	W	Pole Rake	0	0	No Weeds
2010	4	S	Pole Rake	0	0	-
2011	2	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
96	N44.81138403	W89.70324655				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	7	-	-	-	-	N/A No Reading
2008	7	-	-	-	-	N/A No Reading
2009	7	-	-	-		N/A No Reading
2010	7	-	-	-	-	N/A No Reading
2011	7	-	-	-	-	N/A No Reading

Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon Crew: RAL/CTM Datum: WGS84 EWM = Norther

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

N/A = Not Accessible	N/A	=	Not	Accessible
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M = Muck

W = Woody Debris

S = Sand

G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Comments

Point	Latitude	Longitude				
97	N44.81070887	W89.70325001				
Year	Depth	Sediment	Method	EWM	CLP	Com
2007	9	-	-	-	-	N/A No Reading
2008	9	-	-	-	-	N/A No Reading
2009	9	-	-	-	-	N/A No Reading
2010	9	-	-	-	-	N/A No Reading
2011	9	-		-	-	N/A No Reading

Point	Latitude	Longitude				
98	N44.80935856	W89.70325694				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007		M .	-	-	-	N/A Shallow Muck
2008	-	М	- 1	-	-	N/A Shallow Muck
2009	-	М	-	-	-	N/A Shallow Muck
2010	-	-	-	-	-	N/A Shallow Muck
2011	-	-	-	-	-	N/A Shallow Muck

Point	Latitude	Longitude				
99	N44.80260697	W89.70329155				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	M/W	Pole Rake	0	0	No Weeds
2008	5	M	Pole Rake	0	0	No Weeds
2009	5	S	Pole Rake	0	0	No Weeds
2010	6	S/W	Pole Rake	0	0	No Weeds
2011	4	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
100	N44.80193181	W89.70329501				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	M	Pole Rake	0	0	No Weeds
2008	4	S	Pole Rake	0	0	No Weeds
2009	3	S/W	Pole Rake	0	0	No Weeds
2010	5	S/W	Pole Rake	0	0	No Weeds
2011	3	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
101	N44.79990634	W89.70330539				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	M	Pole Rake	1	0	-
2008	1	S	Pole Rake	1	0	-
2009	1	M	Pole Rake	0	0	-
2010	3	S	Pole Rake	0	0	No Weeds
2011	1	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
102	N44.79923118	W89.70330885				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	M	Pole Rake	0	0	No Weeds
2008	3	M	Pole Rake	0	0	No Weeds
2009	3	M	Pole Rake	0	0	No Weeds
2010	4	M/S	Pole Rake	0	0	No Weeds
2011	3	M	Pole Rake	0	0	No Weeds

Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon EWM = Euras Crew: RAL/CTM CLP = Curly-I Datum: WGS84 NWM = North

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil N/A = Not Accessible

- M = Muck
- W = Woody Debris
- S = Sand G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
- Rk = Rock

Point	Latitude	Longitude				
103	N44.79788086	W89.70331577				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	W/M	Pole Rake	0	0	No Weeds
2008	4	M	Pole Rake	0	. 0	No Weeds
2009	4	M	Pole Rake	0	0	No Weeds
2010	5	M	Pole Rake	0	0	No Weeds
2011	4	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
104	N44.7972057	W89.70331923				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	S	Pole Rake	0	0	No Weeds
2008	2	R,S	Pole Rake	0	0	No Weeds
2009	3	M/S	Pole Rake	0	0	No Weeds
2010	3	S	Pole Rake	0	0	No Weeds
2011	1	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
105	N44.79585538	W89.70332615				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	7	-	-	-	-	N/A No Reading
2008	7	-	- 1	-	-	N/A No Reading
2009	7	-	-	_	-	N/A No Reading
2010	7	-	-	-	-	N/A No Reading
2011	7	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
106	N44.79518022	W89.70332961				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	G	Pole Rake	0	0	No Weeds
2008	2	S	Pole Rake	0	0	No Weeds
2009	2	S/G	Pole Rake	0	0	No Weeds
2010	2	G	Pole Rake	0	0	No Weeds
2011	1	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
107	N44.81138156	W89.70229808				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	7	-	-	-	-	N/A No Reading
2008	7	-	-	-	-	N/A No Reading
2009		-	-	-	-	N/A No Reading
2010		-	-	-	-	N/A No Reading
2011	7	- 1	-	-	-	N/A No Reading

Point	Latitude	Longitude				
108	N44.81070641	W89.70230155				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	9	-	-	-	-	N/A No Reading
2008	9	-	-	-	-	N/A No Reading
2009	9	-	-	-	-	N/A No Reading
2010	9	-	-	-	-	N/A No Reading
2011	9	-	-	-	-	N/A No Reading

Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon Crew: RAL/CTM Datum: WGS84 EWM = North

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

N/A	= Not Accessible
M =	Mućk

W = Woody Debris

S = Sand

G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Rk = Rock

Point	Latitude	Longitude				
109	N44.80868093	W89.70231197				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	M		-	-	N/A Shallow Muck
2008	-	М	-	_	-	N/A Shallow Muck
2009	-	M	-	-	-	N/A Shallow Muck
2010	-	-	-	-	-	N/A Shallow Muck
2011	-	-	-	_	-	N/A Shallow Muck

Point	Latitude	Longitude				
110	N44.80800577	W89.70231544				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M	Pole Rake	0	0	No Weeds
2008	1	S	Pole Rake	1	0	No Weeds
2009	1	S	Pole Rake	0	0	No Weeds
2010	1	S	Pole Rake	0	0	No Weeds
2011	-	-	-	-	-	N/A Too Shallow

Point	Latitude	Longitude				
111	N44.80327966	W89.70233975				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S	Pole Rake	0	0	No Weeds
2008	3	M,S	Pole Rake	0	0	-
2009	3	М	Pole Rake	0	0	No Weeds
2010	5	M	Pole Rake	1	0	-
2011	3	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
112	N44.80260451	W89.70234322				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	M	Pole Rake	0	0	No Weeds
2008	5	M,S	Pole Rake	0	0	No Weeds
2009	5	S	Pole Rake	0	0	No Weeds
2010	6	S/W	Pole Rake	0	0	-
2011	5	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
113	N44.80192935	W89.70234669				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	M	Pole Rake	0	0	No Weeds
2008	3	S	Pole Rake	1	0	-
2009	4	M <sup>a</sup>	Pole Rake	0	0	No Weeds
2010	5	M/S	Pole Rake	0	0	No Weeds
2011	3	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
114	N44.79922871	W89.70236058				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M	Pole Rake	0	0	No Weeds
2008	3	M	Pole Rake	0	0	•
2009	2	M	Pole Rake	0	0	No Weeds
2010	4	M/W	Pole Rake	0	0	No Weeds
2011	2	M/S	Pole Rake	0	0	No Weeds

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EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil N/A = Not Accessible

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- S = Sand
- G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
- Rk = Rock

Point	Latitude	Longitude				
115	N44.79855355	W89.70236405				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	W/S	Pole Rake	0	0	-
2008	3	M,W	Pole Rake	0	0	No Weeds
2009	3	W	Pole Rake	0	0	-
2010	4	W	Pole Rake	0	0	No Weeds
2011	2	S/W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
116	N44.79787839	W89.70236752				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	M	Pole Rake	0	0	No Weeds
2008	4	M	Pole Rake	0	0	No Weeds
2009	4	М	Pole Rake	0	0	No Weeds
2010	6	M	Pole Rake	0	0	No Weeds
2011	4	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
117	N44.79720323	W89.70237099				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S	Pole Rake	0	0	No Weeds
2008	3	M,S	Pole Rake	0	0	No Weeds
2009	3	S	Pole Rake	0	0	No Weeds
2010	4	S	Pole Rake	0	0	No Weeds
2011	2	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
118	N44.79652807	W89.70237446				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	W/W	Pole Rake	0	0	No Weeds
2008	2	S	Pole Rake	0	0	No Weeds
2009	2	S	Pole Rake	0	0	No Weeds
2010	14	S	Pole Rake	0	0	No Weeds
2011	2	S/W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
119	N44.79585291	W89.70237793				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	6	W	Pole Rake	0	0	No Weeds
2008	6	-	-	-	-	N/A No Reading
2009	6	-	-	-	-	N/A No Reading
2010	6	-	-	-	-	N/A No Reading
2011	6	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
120	N44.79517775	W89.7023814				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M	Pole Rake	0	0	No Weeds
2008	1	S	Pole Rake	0	0	-
2009	2	M	Pole Rake	0	0	-
2010	3	S	Pole Rake	0	0	-
2011	1	S	Pole Rake	0	0	No Weeds

Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon Crew: RAL/CTM Datum: WGS84 COURD CLP = Curly-I NWM = North

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

N/A = Not Accessible	è
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M = Muck

W = Woody Debris

S = Sand

G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.) Rk = Rock

Point Latitude Longitude 121 N44.81070393 W89.70135309 Year Depth Sediment EWM CLP Method Comments N/A No Reading 2007 9 -2008 9 N/A No Reading --... -2009 9 . -N/A No Reading --2010 9 --N/A No Reading --2011 9 -\_ N/A No Reading \_ -

Point	Latitude	Longitude				
122	N44.81002877	W89.70135658				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	-	-	-	-	N/A Land
2008	-	-		-	-	N/A Land
2009	-	-	-	-	-	N/A Land
2010	-	-	-		-	N/A Land
2011	-	-	-	-	-	N/A Land

Point	Latitude	Longitude				
123	N44.80867846	W89.70136354				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	. 1	М	Pole Rake	0	0	No Weeds
2008	2	M	Pole Rake	0	0	-
2009	1	M/S	Pole Rake	0	0	No Weeds
2010	2	W	Pole Rake	0	0	No Weeds
2011	-		-	-	-	N/A Too Shallow

Point	Latitude	Longitude				
124	N44.80732814	W89.70137051				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	• :	-	-	-	N/A Land
2008	-	-	-	-	-	N/A Land
2009	-		-	-	-	N/A Land
2010	-	-	-	-	-	N/A Land
2011	-	-	-	-	-	N/A Land

Point	Latitude	Longitude	1			
125	N44.80395235	W89.70138793				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	S	Pole Rake	Ö	0	No Weeds
2008	2	S	Pole Rake	0	0	•
2009	2	S and	Pole Rake	0	0	No Weeds
2010	3	S	Pole Rake	0	0	-
2011	2	S S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
126	N44.80327719	W89.70139141				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M a	Pole Rake	1	0	-
2008	2	S	Pole Rake	0	0	-
2009	2	S	Pole Rake	0	0	-
2010	3	S/W	Pole Rake	0	0	-
2011	2	S	Pole Rake	0	0	No Weeds

Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon Crew: RAL/CTM Datum: WGS84 NWM = Norther

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil N/A = Not Accessible M = Muck

W = Woody Debris

S = Sand

G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Rk = Rock

Point	Latitude	Longitude				
127	N44.80260203	W89.70139489				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	S	Pole Rake	0	0	No Weeds
2008	4	S,W	Pole Rake	0	0	No Weeds
2009	4	S	Pole Rake	0	0	No Weeds
2010	4	S	Pole Rake	0	0	-
2011	4	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
128	N44.80192687	W89.70139838				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	М	Pole Rake	0	0	No Weeds
2008	4	S	Pole Rake	0	0	No Weeds
2009	4	W	Pole Rake	0	0	No Weeds
2010	3	S	Pole Rake	0	0	-
2011	3	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
129	N44.80057655	W89.70140534			-	
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	М	-	-	-	N/A Shallow Muck
2008	-	М	-	-	-	N/A Shallow Muck
2009	-	М	-	-	-	N/A Shallow Muck
2010	-	-	-	-	-	N/A Shallow Muck
2011	-	-	-	-	-	N/A Shallow Muck

Point	Latitude	Longitude	8			
130	N44.79855108	W89.70141579				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	W	Pole Rake	0	0	-
2008	2	S	Pole Rake	0	0	-
2009	2	M	Pole Rake	0	0	-
2010	4	M/S	Pole Rake	0	0	No Weeds
2011	2	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
131	N44.79787592	W89.70141927				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	M	Pole Rake	0	0	No Weeds
2008	5	M	Pole Rake	0	0	No Weeds
2009	4	M	Pole Rake	0	0	No Weeds
2010	6	S	Pole Rake	0	0	No Weeds
2011	5	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
132	N44.79720076	W89.70142275				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	M	Pole Rake	0	0	No Weeds
2008	4	M	Pole Rake	0	0	No Weeds
2009	4	M	Pole Rake	0	0	No Weeds
2010	6	М	Pole Rake	0	0	No Weeds
2011	4	M/S	Pole Rake	0	0	No Weeds

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Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon Crew: RAL/CTM Datum: WGS84 EWM = North

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

N/A = Not Accessible
M = Muck

W = Woody Debris

S = Sand

G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.) Rk = Rock

Comments

Point Latitude Longitude 133 N44.7965256 W89.70142623 Year Depth Sediment Method CLP EWM 2007 Ş Pole Rake 0 1 0 No Weeds 2008 2 S Pole Rake 0 0 No Weeds 2009 No Weeds 2 S Pole Rake 0 0 2010 3 S Pole Rake 0 0 No Weeds 2011 1 S Pole Rake 0 0 No Weeds

Point	Latitude	Longitude				
134	N44.79585044	W89.70142971				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	6	S	Pole Rake	0	0	No Weeds
2008	6	-	-	-	-	N/A No Reading
2009	6	-		-	-	N/A No Reading
2010	6	-	-	-	-	N/A No Reading
2011	6	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
135	N44.81070145	W89.70040463				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	8	-	-	-	-	N/A No Reading
2008	8	-	-	-	-	N/A No Reading
2009	8	-	-	-	-	N/A No Reading
2010	8	-	-	-	-	N/A No Reading
2011	8	-		-	-	N/A No Reading

Point	Latitude	Longitude				
136	N44.81002629	W89.70040813				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	-	-		-	N/A Blocked By Down Tree
2008	-	-	-	-	-	N/A Blocked By Down Tree
2009	-	-	-	-	-	N/A Blocked By Down Tree
2010	-	-		-	-	N/A Blocked By Down Tree
2011	-	-		-	-	N/A Blocked By Down Tree

Point	Latitude	Longitude				
137	N44.80935113	W89.70041162				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	-	-	-	-	N/A Land
2008	-	-	· -	-	-	N/A Land
2009	-		-	-	-	N/A Land
2010	-	-	-	-	-	N/A Land
2011	-		-	-	-	N/A Land

Point	Latitude	Longitude				
138	N44.80867597	W89.70041512				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M	Pole Rake	0	0	No Weeds
2008	2	M	Pole Rake	0	0	No Weeds
2009	2	M/S	Pole Rake	0	0	No Weeds Fresh water sponges
2010	2	M/W	Pole Rake	0	0	No Weeds
2011	1	М	Pole Rake	0	0	No Weeds

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Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon EWM = Euras Crew: RAL/CTM CLP = Curly-I Datum: WGS84 NWM = North

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

- N/A = Not Accessible
- M = Muck
- W = Woody Debris
- S = Sand
- G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
- Rk = Rock

Point	Latitude	Longitude				
139	N44.80800081	W89.70041861				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	M	Pole Rake	0	0	No Weeds
2008	3	S	Pole Rake	0	0	No Weeds
2009	3	M	Pole Rake	0	0	No Weeds
2010	4	M	Pole Rake	0	0	No Weeds
2011	3	M/S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
140	N44.8066505	W89.7004256				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	-	-	-	-	N/A Land
2008	-	-		-	-	N/A Land
2009	-	-	-	-	-	N/A Land
2010	-	-	-	-	-	N/A Land
2011	-	-	-	-	-	N/A Land

Point	Latitude	Longitude				
141	N44.80597534	W89.70042909				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	W	Pole Rake	0	0	No Weeds
2008	2	S	Pole Rake	0	0	No Weeds
2009	1	S	Pole Rake	0	0	No Weeds
2010	3	S	Pole Rake	0	0	-
2011	1	S/W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
142	N44.80462502	W89.70043608				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	W	Pole Rake	0	0	No Weeds
2008	5	W	Pole Rake	0	0	No Weeds
2009	4	S	Pole Rake	0	0	No Weeds Secchi Reading 2.4'
2010	4	S	Pole Rake	0	0	No Weeds Secchi Reading 2.9'
2011	2	S	Pole Rake	0	0	No Weeds Secchi Reading 2.7

Point	Latitude	Longitude				
143	N44.80394986	W89.70043958				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	S	Pole Rake	0	0	No Weeds
2008	4	S	Pole Rake	0	0	No Weeds
2009	5	S	Pole Rake	0	0	No Weeds
2010	3	S	Pole Rake	0	0	No Weeds
2011	5	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
144	N44.8032747	W89.70044307		-		
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	S	Pole Rake	0	0	No Weeds
2008	4	S	Pole Rake	0	0	No Weeds
2009	4	S	Pole Rake	0	0	No Weeds
2010	4	S	Pole Rake	0	0	No Weeds
2011	4	S	Pole Rake	0	0	No Weeds

Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon Crew: RAL/CTM Datum: WGS84 NWM = Northe

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil N/A = Not Accessible

- M = Muck
- W = Woody Debris
- S = Sand G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.) Rk = Rock

Comments

	Point	Latitude	Longitude				
	145	N44.80259955	W89.70044656				
	Үеаг	Depth	Sediment	Method	EWM	CLP	
	2007	4	S	Pole Rake	0	0	No Weeds
	2008	4	S	Pole Rake	0	0	No Weeds
	2009	4	S	Pole Rake	0	0	No Weeds
:	2010	4	S	Pole Rake	0	0	No Weeds
	2011	3	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
146	N44.80192439	W89.70045006				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	S/W	Pole Rake	0	0	No Weeds
2008	4	S	Pole Rake	0	0	-
2009	4	S/W	Pole Rake	0	0	No Weeds
2010	3	W	Pole Rake	0	0	No Weeds
2011	4	S/W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
147	N44.79989891	W89.70046054	L			
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	S	Pole Rake	1	0	-
2008	2	S,W	Pole Rake	1	0	-
2009	2	S	Pole Rake	0	0	No Weeds
2010	4	S	Pole Rake	0	0	No Weeds
2011	- ·	- 4		-	-	N/A Too Shallow

Point	Latitude	Longitude				
148	N44.79922375	W89.70046403				
Үеаг	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	M	Pole Rake	0	0	No Weeds
2008	3	M	Pole Rake	0	0	No Weeds
2009	3	M	Pole Rake	0	0	No Weeds
2010	5	S	Pole Rake	0	0	No Weeds
2011	2	M/S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
149	N44.79854859	W89.70046753				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	S	Pole Rake	0	0	No Weeds
2008	2	S,W	Pole Rake	0	0	No Weeds
2009	2	M/W	Pole Rake	0	0	No Weeds
2010	4	S	Pole Rake	0	0	No Weeds
2011	1	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
150	N44.79787343	W89.70047102				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	M	Pole Rake	0	0	No Weeds
2008	5	M	Pole Rake	0	0	No Weeds
2009	4	W	Pole Rake	0	0	No Weeds
2010	7	M	Pole Rake	0	0	No Weeds
2011	5	M/S	Pole Rake	0	0	No Weeds

Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon Crew: RAL/CTM Datum: WGS84 NWM = Norther

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil N/A = Not Accessible

M = Muck

W = Woody Debris S = Sand

G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Point	Latitude	Longitude				
151	N44.79719827	W89.70047451				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	М	Pole Rake	0	0	No Weeds
2008	4	M,W	Pole Rake	0	0	-
2009	4	M	Pole Rake	0	0	No Weeds
2010	6	M	Pole Rake	0	0	No Weeds
2011	4	M/S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude	]			
152	N44.79652311	W89.700478				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	M	Pole Rake	0	0	No Weeds
2008	4	w	Pole Rake	0	0	No Weeds
2009	4	W	Pole Rake	0	0	No Weeds
2010	6	S	Pole Rake	0	0	-
2011	4	S/W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
153	N44.79584795	W89.7004815				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	М	Pole Rake	0	0	No Weeds
2008	5	M	Pole Rake	0	0	No Weeds
2009	6	М	Pole Rake	0	0	No Weeds
2010	7	M	Pole Rake	0	0	No Weeds
2011	6	M/S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
154	N44.7951728	W89.70048499				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	W/S	Pole Rake	0	0	No Weeds
2008	4	S,W	Pole Rake	0	0	No Weeds
2009	4	w	Pole Rake	0	0	No Weeds
2010	5	R	Pole Rake	0	0	No Weeds
2011	3	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
155	N44.8100238	W89.69945968				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	9	-	-	-	-	N/A No Reading
2008	9	-	-	-	-	N/A No Reading
2009	9	- 1	-	-	-	N/A No Reading
2010		-	-	-	-	N/A No Reading
2011	9	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
156	N44.80934864	W89.69946318				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	W	Pole Rake	0	0	No Weeds
2008	3	W	Pole Rake	0	0	No Weeds
2009	2	S	Pole Rake	0	0	No Weeds
2010		-	Pole Rake	0	0	No Weeds
2011	3	S	Pole Rake	0	0	No Weeds

Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon EWM = Euras Crew: RAL/CTM CLP = Curly-H Datum: WGS84 NWM = North

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil N/A = Not Accessible

M = Muck W = Woody Debris

S = Sand

G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Rk = Rock

Point	Latitude	Longitude				
157	N44.8086734	8W89.69946669				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	S	Pole Rake	0	0	No Weeds
2008	3	S,W	Pole Rake	0	0	No Weeds
2009	4	W	Pole Rake	0	0	No Weeds
2010	3	W	Pole Rake	0	0	No Weeds
2011	4	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
158	N44.80732316	W89.6994737				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	10	-	-	-	-	N/A No Reading
2008	10	-	-	-	-	N/A No Reading
2009	10	-	-	_	-	N/A No Reading
2010	10	-	-	-	-	N/A No Reading
2011	10	-	-		-	N/A No Reading

Point	Latitude	Longitude				
159	N44.80597285	W89.69948071				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	-	- 1	-	-	N/A Land
2008	-	-	-	-	-	N/A Land
2009	-	-	-	-		N/A Land
2010	-	-	-	-	-	N/A Land
2011	-	-	-	•	-	N/A Land

Point	Latitude	Longitude				
160	N44.80529769	W89.69948422				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	9	- · · .	-	-		N/A No Reading
2008	9	-	-	-	-	N/A No Reading
2009	9	-	<del>-</del> .	-	-	N/A No Reading
2010	9	-	-	-	-	N/A No Reading
2011	9	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
161	N44.80327221	W89.69949473				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	M	Pole Rake	0	0	No Weeds
2008	3	M,S	Pole Rake	0	0	No Weeds
2009	3	M	Pole Rake	0	0	No Weeds
2010	4	M	Pole Rake	0	0	No Weeds
2011	3	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
162	N44.80259705	W89.69949824				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	M	Pole Rake	Ö	0	No Weeds
2008	5	M	Pole Rake	0	0	No Weeds
2009	5	M/W	Pole Rake	0	0	No Weeds
2010	5	W	Pole Rake	0	0	No Weeds
2011	4	S	Pole Rake	0	0	No Weeds

Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon EWM = Euras Crew: RAL/CTM CLP = Curly-Datum: WGS84 NWM = North

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

- N/A = Not Accessible
- M = Muck
- W = Woody Debris
- S = Sand
- G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
- Rk = Rock

Point	Latitude	Longitude				
163	N44.8019219	W89.69950174				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	S	Pole Rake	0	1	-
2008	1	S	Pole Rake	0	0	No Weeds
2009	2	S	Pole Rake	0	0	-
2010	3	S	Pole Rake	0	0	No Weeds
2011	4	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
164	N44.79989642	W89.69951225				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	S	Pole Rake	0	0	No Weeds
2008	2	S	Pole Rake	0	0	-
2009	2	S	Pole Rake	0	0	No Weeds
2010	4	S	Pole Rake	0	0	-
2011	2	S/W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
165	N44.79922126	W89.69951576				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S	Pole Rake	0	0	No Weeds
2008	3	S	Pole Rake	0	0	No Weeds
2009	3	W	Pole Rake	0	0	No Weeds
2010	5	W	Pole Rake	0	0	No Weeds
2011	3	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
166	N44.7985461	W89.69951926				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	S	Pole Rake	0	0	No Weeds
2008	2	S	Pole Rake	0	0	No Weeds
2009	2	S	Pole Rake	0	0	No Weeds
2010	4	-	Pole Rake	0	0	No Weeds
2011	2	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
167	N44.79787094	W89.69952277				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	7	S	Pole Rake	0	0	No Weeds
2008	7	-	- 1	-	-	N/A No Reading
2009	7	-	-	-	-	N/A No Reading
2010	7	-	-	-	-	N/A No Reading
2011	7	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
168	N44.79719578	W89.69952627				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	7	S	Pole Rake	0	0	No Weeds
2008	7	-		-	-	N/A No Reading
2009	7	-	- 1	-	-	N/A No Reading
2010	7	-	- 1	-	-	N/A No Reading
2011	7	-	-	-	-	N/A No Reading

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Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon EWM = Euras Crew: RAL/CTM CLP = Curly-le Datum: WGS84 NWM = Northe

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil N/A = Not Accessible M = Muck W = Woody DebrisS = Sand

G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Point	Latitude	Longitude				
169	N44.79652062	2W89.69952978				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	7	S <sup>1</sup>	Pole Rake	0	0	No Weeds
2008	7	-	-	-	-	N/A No Reading
2009	7	-	-	-	-	N/A No Reading
2010	7	-	-	-	-	N/A No Reading
2011	7	-	-	-		N/A No Reading

Point	Latitude	Longitude				
170	N44.79584546	W89.69953328				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	7	S	Pole Rake	0 .	0	No Weeds
2008	7	-	-	-	-	N/A No Reading
2009	7		-	-	-	N/A No Reading
2010	7	-	-	-	-	N/A No Reading
2011	7		-	-	-	N/A No Reading

Point	Latitude	Longitude				
171	N44.7951703	W89.69953678				· . · .
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	6	S	Pole Rake	0	0	No Weeds
2008	6	-	-	-	<b>-</b> ·	N/A No Reading
2009	6		-	-	-	N/A No Reading
2010	6	- :	-	-	-	N/A No Reading
2011	6	-	- 1	-	-	N/A No Reading

Point	Latitude	Longitude				
172	N44.8100213	W89.69851123				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	9	-		-	-	N/A No Reading
2008	9	- 1	-	_	-	N/A No Reading
2009	9	-	-	-	-	N/A No Reading
2010	9	-	-	-	-	N/A No Reading
2011	9	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
173	N44.80934614	W89.69851474				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	10	- 3 <u>8</u>	-	-	-	N/A No Reading
2008	10	-	-	-	-	N/A No Reading
2009	10		- 1	_	-	N/A No Reading
2010	10	-		-	-	N/A No Reading
2011	10		-	-	-	N/A No Reading

Point	Latitude	Longitude					
174	N44.80867098	W89.69851826					
Year	Depth	Sediment	Method	EWM	CLP	Comments	
2007	15	-		-	-	N/A No Reading	
2008	15	-	-	-	-	N/A No Reading	
2009	15	-	-	-	-	N/A No Reading	
2010	15	-	-	-	-	N/A No Reading	
2011	15		-	-	-	N/A No Reading	

Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon Crew: RAL/CTM Datum: WGS84 NWM = North

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R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Point	Latitude	Longitude					
175	N44.80799582	2W89.69852178		_			
Year	Depth	Sediment	Method	EWM	CLP	Comments	
2007	10	-		-	-	N/A No Reading	
2008	10	-	-	-	-	N/A No Reading	
2009	10	-	-	-	-	N/A No Reading	
2010	10	-	-	-	-	N/A No Reading	
2011	10	-	-	-	-	N/A No Reading	

Point	Latitude	Longitude				
176	N44.80732066	W89.69852529				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	12	-	-	-	-	N/A No Reading
2008	12		-	-	-	N/A No Reading
2009	12	-	-	-	-	N/A No Reading
2010	12	-	-	-	-	N/A No Reading
2011	12	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
177	N44.80664551	W89.69852881				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	11	-	-	-	-	N/A No Reading
2008	11	-	-	-	-	N/A No Reading
2009		-	-	_	-	N/A No Reading
2010	11	÷	-	-	-	N/A No Reading
2011	11	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
178	N44.80529519	W89.69853584				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	7	-	-	-	-	N/A No Reading
2008	7	-	-	-	-	N/A No Reading
2009		-	-	-	-	N/A No Reading
2010		-	-	-	-	N/A No Reading
2011		-			-	N/A No Reading

Point	Latitude	Longitude				
179	N44.80259456	W89.69854991				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	W	Pole Rake	1	0	No Weeds
2008	4	S	Pole Rake	0	0	No Weeds
2009	4	S/W	Pole Rake	0	0	No Weeds
2010	5	S	Pole Rake	0	0	No Weeds
2011	4	S/W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
180	N44.8019194	W89.69855342				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	S	Pole Rake	0	0	No Weeds
2008	4	S	Pole Rake	0	0	No Weeds
2009	4	S	Pole Rake	0	0	No Weeds
2010	6	S	Pole Rake	0	0	No Weeds
2011	4	s	Pole Rake	0	0	No Weeds

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil N/A = Not Accessible M = Muck W = Woody Debris

S = Sand

G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.) Rk = Rock

Point	Latitude	Longitude					
181	N44.80124424	W89.69855694					
Year	Depth	Sediment	Method	EWM	CLP	Comments	
2007	4	S	Pole Rake	0	0	No Weeds	
2008	4	S	Pole Rake	0	0	No Weeds	
2009	4	S/W	Pole Rake	0	0	No Weeds	-
2010	6	S	Pole Rake	0	0	-	
2011	3	S	Pole Rake	0	0	No Weeds	-

Point	Latitude	Longitude				
182	N44.80056908	W89.69856046				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	7	S	Pole Rake	0	0	No Weeds
2008	7	-	-	-	-	N/A No Reading
2009	7	-	-	-	-	N/A No Reading
2010	7	-	-	-	-	N/A No Reading
2011	7			-	-	N/A No Reading

Point	Latitude	Longitude				
183	N44.79989392	W89.69856397				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	S	Pole Rake	0	0	No Weeds
2008	4	Ş	Pole Rake	0	0	No Weeds
2009	4	S	Pole Rake	0	0	No Weeds
2010	5	W	Pole Rake	0	0	No Weeds
2011	4	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
184	N44.79921876	W89.69856749				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S	Pole Rake	0	0	No Weeds
2008	2	S.	Pole Rake	0	0	No Weeds
2009	3	S	Pole Rake	0	0	No Weeds
2010	6	S	Pole Rake	0	0	No Weeds
2011	2	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude	]			
185	N44.7985436	W89.698571	1			
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	6	M	Pole Rake	0	0	No Weeds
2008	6	-	-	-	-	N/A No Reading
2009	6	-	-	-	-	N/A No Reading
2010	6	-	-	-	-	N/A No Reading
2011	6	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
186	N44.79786844	W89.69857452	l .			
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	7	M	Pole Rake	0	0	No Weeds
2008	7	-	-	-	-	N/A No Reading
2009	7	-	· -	-	-	N/A No Reading
2010	7	-		-	-	N/A No Reading
2011	7	-	· _	-	-	N/A No Reading

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1789 - - - Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon EWM = Euras Crew: RAL/CTM CLP = Curly-I Datum: WGS84 NWM = North

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

- N/A = Not Accessible M = Muck
- W = Woody Debris
- S = Sand
- G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
- Rk = Rock

Point	Latitude	Longitude				
187	N44.79719328	W89.69857803				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	8	-	-	-	-	N/A No Reading
2008	8	-	-	-	-	N/A No Reading
2009	8	-		-	÷	N/A No Reading
2010	8	-	-	-	-	N/A No Reading
2011	8	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
188	N44.79651812	W89.69858155				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	8	-	-	-	-	N/A No Reading
2008	8	-	-		-	N/A No Reading
2009	8	-	- 1	-	-	N/A No Reading
2010	8	-	-	-	-	N/A No Reading
2011	8	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
189	N44.79584297	W89.69858506				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	9	-	-	-	-	N/A No Reading
2008	9	-	-	-	-	N/A No Reading
2009	9	-	-	-	-	N/A No Reading
2010	9	-	-	-	-	N/A No Reading
2011		-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
190	N44.79516781	W89.69858858				•
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	9	-	-	-	-	N/A No Reading
2008	9	-	-	-	-	N/A No Reading
2009	9	-	-	-	-	N/A No Reading
2010	9		-	-	-	N/A No Reading
2011	9	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
191	N44.79449265	W89.69859209				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	S	Pole Rake	0	0	No Weeds
2008	4	M,S	Pole Rake	0	0	No Weeds
2009	3	S	Pole Rake	0	0	No Weeds
2010	5	S	Pole Rake	0	0	No Weeds
2011	3	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
192	N44.80934363	W89.6975663				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	7	-	-	-	-	N/A No Reading
2008	7	-	-	-	-	N/A No Reading
2009		-	-	-	-	N/A No Reading
2010		-	-	-	-	N/A No Reading
2011	7	-	-		-	N/A No Reading

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil N/A = Not Accessible

- M = Muck
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- S = Sand
- G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
- Rk = Rock

Point	Latitude	Longitude					
193	N44.80866847	W89.69756983					
Year	Depth	Sediment	Method	EWM	CLP	Comments	•
2007	9	-	-	-	-	N/A No Reading	
2008	9	-	-	-	-	N/A No Reading	
2009	9	-	-	-	-	N/A No Reading	•
2010	9	-	-	-	-	N/A No Reading	•
2011	9	-	-	-	-	N/A No Reading	

Point	Latitude	Longitude				
194	N44.806643	W89.69758042				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	S	Pole Rake	0	0	-
2008	1	S	Pole Rake	0	0	No Weeds
2009	-	S	-	-	-	N/A Shallow Sand
2010	3	S	Pole Rake	0	0	No Weeds
2011	-	-	<u> </u>	-	-	N/A Too Shallow

Point	Latitude	Longitude				
195	N44.80596784	W89.69758394				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	9	-	-	-	-	N/A No Reading
2008	9	-		-	-	N/A No Reading
2009	9	-	-	-	-	N/A No Reading
2010	9	-	-	-	-	N/A No Reading
2011	9	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
196	N44.80529268	W89.69758747				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007		-	-	-	-	N/A No Reading
2008	11			-	-	N/A No Reading
2009	11	-	-	-	-	N/A No Reading
2010	11	-		-	-	N/A No Reading
2011	11	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
197	N44.80326721	W89.69759805				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	W/S	Pole Rake	1	0	-
2008	2	S	Pole Rake	1	0	-
2009	2	S	Pole Rake	0	0	-
2010	3	M/S	Pole Rake	0	Ö	No Weeds
2011	2	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
198	N44.80259205	W89.69760158				99 A
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	S	Pole Rake	1	0	-
2008	4	S	Pole Rake	0	0	No Weeds
2009	3	S	Pole Rake	0	0	No Weeds
2010	3	S	Pole Rake	0	0	-
2011	2	S	Pole Rake	0	0	No Weeds

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil N/A = Not Accessible

M = Muck W = Woody Debris

S = Sand

G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Point	Latitude	Longitude				
199	N44.80191689	W89.69760511	- 			
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	G/W	Pole Rake	0	0	No Weeds
2008	5	S,W	Pole Rake	0	0	No Weeds
2009	5	S/W	Pole Rake	0	0	No Weeds
2010	6	S/W	Pole Rake	0	0	No Weeds
2011	4	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
200	N44.80124173	W89.69760863				
Үеаг	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	S	Pole Rake	0	0	No Weeds
2008	3	S	Pole Rake	0	0	No Weeds
2009	3	S	Pole Rake	0	0	No Weeds
2010	6	S	Pole Rake	0	0	No Weeds
2011	4	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
201	N44.80056657	W89.69761216				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S	Pole Rake	0	0	-
2008	3	S	Pole Rake	0	0	No Weeds
2009	3	S	Pole Rake	0	0	No Weeds
2010	5	W	Pole Rake	0	0	No Weeds
2011	3	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
202	N44.79989141	W89.69761569				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S	Pole Rake	0	1	-
2008	3	S	Pole Rake	0	0	No Weeds
2009	3	S	Pole Rake	0	0	No Weeds
2010	5	S	Pole Rake	0	0	-
2011	2	S/W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
203	N44.79921625	W89.69761921				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	S	Pole Rake	0	0	No Weeds
2008	6	S	Pole Rake	0	0	No Weeds
2009	5	S	Pole Rake	0	0	No Weeds
2010	8	S	Pole Rake	0	0	No Weeds
2011	6	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
204	N44.7985411	W89.69762274				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	7	S	Pole Rake	0	0	No Weeds
2008	7	-	-	-	-	N/A No Reading
2009	7	-	-	-	-	N/A No Reading
2010	7	-	-	-	•	N/A No Reading
2011	7	-	-	-	-	N/A No Reading

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N/A =	Not	Accessi	ble
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- G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Rk = Rock

Point	Latitude	Longitude				
205	N44.79786594	W89.69762627				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	8	- 1	· · ·-	-	-	N/A No Reading
2008	8	- 1	-	-	-	N/A No Reading
2009	8	-	-	-	-	N/A No Reading
2010	8	-	-	-	-	N/A No Reading
2011	8	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
206	N44.79719078	W89.69762979				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	8	S	Pole Rake	0	0	No Weeds
2008	8		-	-	-	N/A No Reading
2009	8	-	-	-	- '	N/A No Reading
2010	8	-		-	-	N/A No Reading
2011	8	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
207	N44.79651562	W89.69763332				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	8	-	-	-	-	N/A No Reading
2008	8	-	-	-	-	N/A No Reading
2009	8	-	-	-	-	N/A No Reading
2010	8	-	-	-	-	N/A No Reading
2011	8	-		-	-	N/A No Reading

Point	Latitude	Longitude	1			
208	N44.79584046	W89.69763684				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	8	-	-	-	-	N/A No Reading
2008	8	-	-	-	-	N/A No Reading
2009	8		-	-	-	N/A No Reading
2010	8	-	-	-	-	N/A No Reading
2011	8	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
209	N44.7951653	W89.69764037				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	9	-	-	-	-	N/A No Reading
2008	9	-	· · ·	-	-	N/A No Reading
2009	9	-	- 1	_	-	N/A No Reading
2010	9	-	-	-	-	N/A No Reading
2011	9	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
210	N44.79449014	W89.6976439				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	8	S	Pole Rake	0	0	No Weeds
2008	8	-		-	-	N/A No Reading
2009	8	-	-	-	-	N/A No Reading
2010	8	-	-	-	-	N/A No Reading
2011	8	-	-	-	-	N/A No Reading

 Invasive Species Point Intercept Survey Report

 Project/Lake: Mosinee/Mosinee Flowage (518 Sample points)

 Date: 2007 thru 2011

 WBIC: 1334900

 County: Marathon

 EWM = Eurast

 Crew: RAL/CTM
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- Rk = Rock

Point	Latitude	Longitude				
211	N44.79381498	W89.69764742				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	R	Pole Rake	0	0	No Weeds
2008	3	G,R	Pole Rake	0	0	No Weeds
2009	3	R/S	Pole Rake	0	0	No Weeds
2010	4	R	Pole Rake	0	0	No Weeds
2011	3	RK	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
212	N44.7917895	W89.697658				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	-	-	-	-	Boat Barrier
2008	•	-	-	-	-	Boat Barrier
2009	-	-	-	-	-	Boat Barrier
2010	-	-	-	-	-	Boat Barrier
2011	-	-	-	-	-	Boat Barrier

Point	Latitude	Longitude				
213	N44.80934111	W89.69661787				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	S	Pole Rake	0	0	No Weeds
2008	1	S	Pole Rake	0	0	No Weeds
2009	1	S	Pole Rake	0	0	No Weeds
2010	4	S	Pole Rake	0	0	No Weeds
2011	2	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
214	N44.80866596	W89.69662141				· · · · · · · · · · · · · · · · · · ·
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	10	-	-	-	-	N/A No Reading
2008	10	-	-	-	-	N/A No Reading
2009	10	-	-	-	-	N/A No Reading
2010	10	-	-	-	-	N/A No Reading
2011	10	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
215	N44.80731564	W89.69662848				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	S	Pole Rake	0	0	No Weeds
2008	1	S	Pole Rake	0	0	No Weeds
2009	1	S	Pole Rake	0	0	No Weeds
2010	3	S	Pole Rake	0	0	No Weeds
2011	-	-	-	-	-	N/A Too Shallow

Point	Latitude	Longitude	]			
216	N44.80664048	W89.69663202	<u>}</u>			
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	S	Pole Rake	0	0	No Weeds
2008	3	G,S	Pole Rake	0	0	No Weeds
2009	2	S	Pole Rake	0	0	No Weeds
2010	5	S	Pole Rake	0	0	No Weeds
2011	2	S	Pole Rake	0	0	No Weeds

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No Weeds

No Weeds

No Weeds

No Weeds

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.) Rk = Rock

Comments

CLP

0

0

0

0

0

	Point	Latitude	Longitude		
Ι	217	N44.80596533	W89.69663556		
[	Year	Depth	Sediment	Method	EWM
Ι	2007	4	S	Pole Rake	0
	2008	4	W	Pole Rake	0
	2009	4	S	Pole Rake	0
	2010	6	S	Pole Rake	0
	2011	2	S	Pole Rake	0

Point	Latitude	Longitude				
218	N44.80529017	W89.6966391				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	13	-		-	-	N/A No Reading
2008	13	-		-	-	N/A No Reading
2009	13	-	. =	-	-	N/A No Reading
2010	13	-	-	-	-	N/A No Reading
2011	13	-		-	-	N/A No Reading

Point	Latitude	Longitude				
219	N44.80258953	W89.69665325				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	S	Pole Rake	0	0	
2008	2	S	Pole Rake	1	0	-
2009	2	S	Pole Rake	0	0	No Weeds
2010	2	S	Pole Rake	0	0	-
2011	2	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
220	N44.80191438	W89.69665679				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	S/G	Pole Rake	0	0	No Weeds
2008	4	G,S	Pole Rake	0	0	No Weeds
2009	5	S	Pole Rake	0	0	No Weeds
2010	6	G	Pole Rake	0	0	No Weeds
2011	5	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
221	N44.80123922	W89.69666033				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S/G	Pole Rake	0	1	-
2008	2	G,S	Pole Rake	0	0	No Weeds
2009	3	G/S	Pole Rake	0	0	No Weeds
2010	5	G	Pole Rake	0	0	No Weeds
2011	2	S/G	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude	1			
222	N44.80056406	W89.69666387	1			
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	S	Pole Rake	0	0	No Weeds
2008	1	S	Pole Rake	0	0	No Weeds
2009	1	S	Pole Rake	0	0	No Weeds
2010	3	S/W	Pole Rake	0	0	No Weeds
2011	1	S	Pole Rake	0	0	No Weeds

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Point	Latitude	Longitude				
223	N44.7998889	W89.6966674				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	S	Pole Rake	0	0	No Weeds
2008	2	S	Pole Rake	0	0	No Weeds
2009	3	S	Pole Rake	0	0	No Weeds
2010	5	S	Pole Rake	0	0	-
2011	3	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
224	N44.79921374	W89.69667094				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	6	M	Pole Rake	0	0	No Weeds
2008	6	-	-	-	-	N/A No Reading
2009	6	-	-	-	-	N/A No Reading
2010	6	-	-	-	-	N/A No Reading
2011	6	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
225	N44.79853858	W89.69667448				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	W	Pole Rake	0	0	No Weeds
2008	6	W	Pole Rake	0	0	No Weeds
2009	5	S	Pole Rake	0	0	No Weeds
2010	7	W	Pole Rake	0	0	No Weeds
2011	5	W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
226	N44.79786342	W89.69667802				· · · ·
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	6	S	Pole Rake	0	0	No Weeds
2008	6	-	-	-	-	N/A No Reading
2009	6	-	-	-	-	N/A No Reading
2010	6	-	-	-	•	N/A No Reading
2011	6		- 1	-	-	N/A No Reading

Point	Latitude	Longitude				
227	N44.79718826	W89.69668155				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	7	W	Pole Rake	0	0	No Weeds
2008	7	-	-	-	-	N/A No Reading
2009	7	-	-	-	-	N/A No Reading
2010	7	-	-	-	-	N/A No Reading
2011	7	-	-	-	-	N/A No Reading

Point	Latitude	Longitude	-			
228	N44.7965131	W89.69668509				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	7	M	Pole Rake	0	0	No Weeds
2008	7	-	-	-	-	N/A No Reading
2009	7	-	-	-	-	N/A No Reading
2010	7	-	-	-	-	N/A No Reading
2011	7	-	-	-	-	N/A No Reading

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N/A = Not Accessible
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S = Sand

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- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Point	Latitude	Longitude				
229	N44.79583794	W89.69668863				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	8	-	-	-	-	N/A No Reading
2008	8	-	-	-	-	N/A No Reading
2009	- 8	-	-	-	-	N/A No Reading
2010	8	-	-	-	-	N/A No Reading
2011	8	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
230	N44.79516279	W89.69669216				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	9	-	-	-	-	N/A No Reading
2008	9	-	-	-	-	N/A No Reading
2009	9	-	-	-	-	N/A No Reading
2010	9	-	-	-	-	N/A No Reading
2011	9	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
231	N44.79448763	W89.6966957				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	9	-	- 1	-	-	N/A No Reading
2008	9	-	-	-	-	N/A No Reading
2009	9	-	-	-	-	N/A No Reading
2010	9	-	-	-	-	N/A No Reading
2011	9	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
232	N44.79381247	W89.69669924				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S	Pole Rake	0	0	No Weeds
2008	2	S	Pole Rake	0	0	-
2009	3	G/S	Pole Rake	0	0	No Weeds
2010	5	R	Pole Rake	0	0	No Weeds
2011	3	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude	1			
233	N44.79313731	W89.69670277	ĺ			
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	9	R	Pole Rake	0	0	No Weeds
2008	9	- 18		-		N/A No Reading
2009	9		· -	-	-	N/A No Reading
2010	9	-		-	-	N/A No Reading
2011	9	-	: <u>-</u>	-	-	N/A No Reading

Point	Latitude	Longitude				:
234	N44.79246215	W89.69670631				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	10	-	-	-	-	N/A No Reading
2008	10	-	-	-	-	N/A No Reading
2009	10	-	- 1	-	-	N/A No Reading
2010	10	- 1	· _ ·	-	-	N/A No Reading
2011	10	-	-	-	-	N/A No Reading

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

- N/A = Not Accessible
- M = Muck
- W = Woody Debris
- S = Sand
- G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
- Rk = Rock

Point	Latitude	Longitude				
235	N44.79178699	W89.69670985				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	-	-	-	-	Boat Barrier
2008	-	-	-	-	-	Boat Barrier
2009	-	-	-	-	-	Boat Barrier
2010	-	-	-	-	-	Boat Barrier
2011	_	-	-	-	-	Boat Barrier

Point	Latitude	Longitude				
236	N44.79111183	W89.69671338				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007		-	-	-	-	Boat Barrier
2008	-	-	-	-	-	Boat Barrier
2009	-	-	-	-	-	Boat Barrier
2010		-	-	-	-	Boat Barrier
2011			-	-	-	Boat Barrier

Point	Latitude	Longitude				
237	N44.80933859	W89.69566943				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	S	Pole Rake	0	0	No Weeds
2008	1	S	Pole Rake	0	0	No Weeds
2009	1	S	Pole Rake	0	0	No Weeds
2010	3	G	Pole Rake	0	0	No Weeds
2011	1	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
238	N44.80866343	W89.69567298				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	12	-	-	-	- Wild Rice/	N/A - Wild Rice/Land
2008	12	-	-	-	-	N/A No Reading
2009		-	-	-	-	N/A No Reading
2010		-	-	-	-	N/A No Reading
2011		-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
239	N44.80663796	W89.69568363				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	0	-	_ 1	-	-	N/A Land
2008	0	-	-	-	-	N/A Land
2009	-	-	-	+	-	N/A Land
2010	-	-	-	-	-	N/A Land
2011	-	-	-	-	-	N/A Land

Point	Latitude	Longitude				
240	N44.8059628	W89.69568718				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	S	Pole Rake	0	0	No Weeds
2008	1	S	Pole Rake	0	0	No Weeds
2009	1	S	Pole Rake	0	0	No Weeds
2010	3	S	Pole Rake	0	0	No Weeds
2011	-	-	- 1	-	-	N/A Too Shallow

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W = Woody Debris

S = Sand

G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Point	Latitude	Longitude				
241	N44.80528764	W89.69569073				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	7	-	-	=	-	N/A No Reading
2008	7	-	-	-	-	N/A No Reading
2009	7	-	-	_	-	N/A No Reading
2010	7	-	-	-	-	N/A No Reading
2011	7	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
242	N44.80461249	W89.69569428				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	12	-	.=	-	-	N/A No Reading
2008	12	-	-	-	-	N/A No Reading
2009	12	-	-	-	-	N/A No Reading
2010	12	-	-	-	-	N/A No Reading
2011	12	-	-	-	-	N/A No Reading

Point	Latitude	Longitude	1			
243	N44.80258701	W89.69570492				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	7	-	-	-	-	N/A No Reading
2008	7	-	-	-	-	N/A No Reading
2009	7	-		-	-	N/A No Reading
2010	7	-	-	-	-	N/A No Reading
2011	7		. •	-	-	N/A No Reading

Point	Latitude	Longitude				· · · · · · ·
244	N44.80191185	W89.69570847				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	S	Pole Rake	0	0	No Weeds
2008	1	S	Pole Rake	0	0	No Weeds
2009	1	S	Pole Rake	0	0	No Weeds
2010	2	W	Pole Rake	0	0	No Weeds
2011	1	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
245	N44.80123669	W89.69571202				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	S	Pole Rake	0	0	-
2008	2	S	Pole Rake	0	0	No Weeds
2009	2	S	Pole Rake	0	0	No Weeds
2010	3	S .	Pole Rake	0	0	No Weeds
2011	1	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude	1			
246	N44.80056154	W89.69571557	· ·			
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	R	Pole Rake	0	0	No Weeds
2008	3	S	Pole Rake	0	0	No Weeds
2009	3	R	Pole Rake	0	0	No Weeds Secchi Reading 2.0'
2010	5	S	Pole Rake	0	0	No Weeds Secchi Reading 2.0'
2011	3	S	Pole Rake	0	0	No Weeds Secchi Reading N/A

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M = Muck

W = Woody Debris S = Sand

G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Point	Latitude	Longitude				
247	N44.79988638	W89.69571912				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	M	Pole Rake	0	0	No Weeds
2008	5	S	Pole Rake	0	0	No Weeds
2009	5	M/S	Pole Rake	0	0	No Weeds
2010	7	M/S	Pole Rake	0	0	No Weeds
2011	5	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
248	N44.79921122	W89.69572267				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	M	Pole Rake	0	0	No Weeds
2008	5	W	Pole Rake	0	0	No Weeds
2009	5	M	Pole Rake	0	0	No Weeds
2010	7	M	Pole Rake	0	0	No Weeds
2011	5	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
249	N44.79853606	W89.69572622				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	М	Pole Rake	0	0	No Weeds
2008	5	M	Pole Rake	0	0	No Weeds
2009	5	M	Pole Rake	0	0	No Weeds
2010		S/W	Pole Rake	0	0	No Weeds
2011	5	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
250	N44.7978609	W89.69572977				· · · ·
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	w	Pole Rake	0	0	No Weeds
2008	6	S,W	Pole Rake	0	0	No Weeds
2009	5	M/W	Pole Rake	0	0	No Weeds
2010	7	M/S	Pole Rake	0	0	No Weeds
2011		M/S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
251	N44.79718574	W89.69573331				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	S	Pole Rake	0	0	No Weeds
2008	5	S,W	Pole Rake	0	0	No Weeds
2009	5	W	Pole Rake	0	0	No Weeds
2010		M/S	Pole Rake	0	0	No Weeds
2011		S	Pole Rake	0	0	-

Point	Latitude	Longitude				
252	N44.79651058	W89.69573686				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	6	M	Pole Rake	0	0	No Weeds
2008	6	-	-	-	-	N/A No Reading
2009		-	-	-	-	N/A No Reading
2010		-	- 1	-	-	N/A No Reading
2011	6	-	- 1	-	-	N/A No Reading

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N/A =	Not	Access	sible
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M = Muck

W = Woody Debris

S = Sand

G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Point	Latitude	Longitude				
253	N44.79583542	W89.69574041				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	7	М	Pole Rake	0	0	No Weeds
2008	7	-	- '	-	-	N/A No Reading
2009	7	-	-	-	-	N/A No Reading
2010	7	-	-	-	-	N/A No Reading
2011	7	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
254	N44.79516026	W89.69574396				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	9		-	-	-	N/A No Reading
2008	9	-	-	-	-	N/A No Reading
2009	9		-	-	-	N/A No Reading
2010	9	-	-	-		N/A No Reading
2011	9	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
255	N44.7944851	W89.6957475				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	15	-	-	-	-	N/A No Reading
2008	15		-	-	-	N/A No Reading
2009	15	-	-	-	-	N/A No Reading
2010	15	-	-	+	-	N/A No Reading
2011	15		-	-	-	N/A No Reading

Point	Latitude	Longitude				
256	N44.79380994	W89.69575105				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	6	M	Pole Rake	0	0	No Weeds
2008	6	-	-	-	-	N/A No Reading
2009	6	- 11	-	_	-	N/A No Reading
2010	6	- 19	-	-	-	N/A No Reading
2011	6	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
257 1	N44.79245963	W89.69575815				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	10	-	-	-	-	N/A No Reading
2008	10	-	-	-	-	N/A No Reading
2009	10	-	-	-	-	N/A No Reading
2010	10	- 7 44		-	-	N/A No Reading
2011	10	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
258	N44.79178447	W89.69576169				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007		•	-	-	-	Boat Barrier
2008	-	• 4 j 4 j	Le 🖕	-	-	Boat Barrier
2009	-	-	·-	-	-	Boat Barrier
2010	1		-	-	-	Boat Barrier
2011	-	•	-	-	-	Boat Barrier

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Point	Latitude	Longitude				
259	N44.79110931	W89.69576524				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	-	-	-	-	Boat Barrier
2008	-		-	-	-	Boat Barrier
2009	-	-	-	-	-	Boat Barrier
2010		-	-	-	-	Boat Barrier
2011		-	-	-	-	Boat Barrier

Point	Latitude	Longitude				
260	N44.80933606	W89.69472099				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	G	Pole Rake	0	0	No Weeds
2008	3	G,S	Pole Rake	0	0	No Weeds
2009	3	G	Pole Rake	0	0	No Weeds
2010	5	G	Pole Rake	0	0	No Weeds
2011	3	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
261	N44.8086609	W89.69472455				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	12	-	-	-	-	N/A No Reading
2008	12	-	-	-	-	N/A No Reading
2009	12	-	-	_	-	N/A No Reading
2010	12	-	-	-	-	N/A No Reading
2011	12	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
262	N44.80663543	W89.69473523				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	-	-	-	-	N/A Land
2008	-	-	-	-	-	N/A Land
2009	-	-	-	-	-	N/A Land
2010		-	-	-	-	N/A Land
2011		-	-	-	-	N/A Land

Point	Latitude	Longitude				
263	N44.80528511	W89.69474236				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S	Pole Rake	0	0	No Weeds
2008	3	S	Pole Rake	0	0	No Weeds
2009	3	S	Pole Rake	0	0	No Weeds
2010	8	S	Pole Rake	0	0	No Weeds
2011	2	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
264	N44.80460995	W89.69474592				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	7	-	-		-	N/A No Reading
2008	7	-	-	-	-	N/A No Reading
2009	7	-	-	-	-	N/A No Reading
2010		-	-	-	-	N/A No Reading
2011		-	-	-	-	N/A No Reading

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R = RookRk = Rock

Point	Latitude	Longitude				
265	N44.8039348	W89.69474948			·	· · · · · · · · · · · · · · · · · · ·
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	8	-		-	-	N/A No Reading
2008	8	-	-		+	N/A No Reading
2009	8	-	-	-	-	N/A No Reading
2010	8	-	-	-	-	N/A No Reading
2011	8	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
266	N44.80325964	W89.69475304				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	9	-	-	-	-	N/A No Reading
2008	9	-	-	-	-	N/A No Reading
2009	9	-	-	-	-	N/A No Reading
2010	9	-	-	-	-	N/A No Reading
2011	9	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
267	N44.80123416	W89.69476372				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S	Pole Rake	0	0	No Weeds
2008	3	S	Pole Rake	0	0	No Weeds
2009	3	S/W	Pole Rake	0	0	No Weeds
2010	3	S	Pole Rake	0	0	No Weeds
2011	3	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
268	N44.800559	W89.69476728				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S	Pole Rake	0	0	No Weeds
2008	3	S	Pole Rake	0	0	No Weeds
2009	3	S	Pole Rake	0	0	No Weeds
2010	5	S	Pole Rake	0	0	No Weeds
2011	2	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
269	N44.79988385	W89.69477084				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	M	Pole Rake	0	0	No Weeds
2008	5	S,W	Pole Rake	0	0	No Weeds
2009	5	M	Pole Rake	0	0	No Weeds
2010	7	M/S	Pole Rake	0	0	No Weeds
2011	5	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
270	N44.79920869	W89.6947744				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	М	Pole Rake	0	0	No Weeds
2008	5	S	Pole Rake	0	0	No Weeds
2009	5	S	Pole Rake	0	0	No Weeds Secchi Reading 2.5'
2010	6	S	Pole Rake	0	0	No Weeds Secchi Reading 2.2'
2011	5	S	Pole Rake	0	0	No Weeds Secchi Reading 2.6'

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S = Sand

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- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Comments

			- - -	Longitude	Latitude	Point
				W89.69477796	N44.79853353	271
	CLP	EWM	Method	Sediment	Depth	Year
No Weeds	0	0	Pole Rake	S/W	4	2007
No Weeds	0	0	Pole Rake	S	5	2008
No Weeds	0	0	Pole Rake	M/S	5	2009
No Weeds	0	0	Pole Rake	M/S	7	2010
No Weeds	0	0	Pole Rake	S	4	2011

Point	Latitude	Longitude				
272	N44.79785837	W89.69478152				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	M	Pole Rake	0	0	No Weeds
2008	5	M	Pole Rake	0	0	No Weeds
2009	5	M/W	Pole Rake	0	0	No Weeds
2010	7	S/W	Pole Rake	0	0	No Weeds
2011	5	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
273	N44.79718321	W89.69478507				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	7	-	-	-	-	N/A No Reading
2008	7	-	-	-	-	N/A No Reading
2009		-	-	-	-	N/A No Reading
2010		-	-	-	-	N/A No Reading
2011		-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
274	N44.79650805	W89.69478863				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	S	Pole Rake	0	0	No Weeds
2008	4	S	Pole Rake	0	0	No Weeds
2009	4	S	Pole Rake	0	0	No Weeds
2010	6	S	Pole Rake	0	0	No Weeds
2011	5	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
275	N44.79583289	W89.69479219				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	S	Pole Rake	0	0	No Weeds
2008	3	R	Pole Rake	0	0	No Weeds
2009	4	S	Pole Rake	0	0	No Weeds
2010		S/W	Pole Rake	0	0	No Weeds
2011	3	s	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
276	N44.79515773	W89.69479575				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	6	S	Pole Rake	0	0	No Weeds
2008	6	-	- 1	-	-	N/A No Reading
2009	6	-	-	-	-	N/A No Reading
2010	6	-	- 1		-	N/A No Reading
2011	6	-	- 1	-	-	N/A No Reading

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S = Sand

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Point	Latitude	Longitude				
277	N44.79448257	W89.69479931				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	15	-	-	-	-	N/A No Reading
2008	15	-	-	-	-	N/A No Reading
2009	15	-	· -	-	-	N/A No Reading
2010	15	-	-	-	-	N/A No Reading
2011	15	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
278	N44.79380741	W89.69480287				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	15	-	-	-	-	N/A No Reading
2008	15	-	-	-	-	N/A No Reading
2009	15	-	-	-	-	N/A No Reading
2010	15	-	-	-	-	N/A No Reading
2011	15	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
279	N44.79313225	W89.69480643				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	16	•	-	-	-	N/A No Reading
2008	16	-	-	_	-	N/A No Reading
2009	16		-	-	-	N/A No Reading
2010	16	-	-	-	-	N/A No Reading
2011	16	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
280	N44.7924571	W89.69480999				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	17		-	-	-	N/A No Reading
2008	17	-	-	-	-	N/A No Reading
2009	17	-	-	-	-	N/A No Reading
2010	17	- 1	-	-	-	N/A No Reading
2011	17	-	i _	+	<del>-</del> •	N/A No Reading

Point	Latitude	Longitude				
281	N44.79178194	W89.69481354				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	14		(1.1 <b>-</b>	-	-	N/A No Reading
2008	14	-	-	-	-	N/A No Reading
2009	14	-	-	-	-	N/A No Reading
2010	14	-	-	-	-	N/A No Reading
2011	14	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
282	N44.79110678	W89.6948171				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	- 1	-	-	-	Boat Barrier
2008	-	-	-	-	-	Boat Barrier
2009	-	-	-	-	-	Boat Barrier
2010	-	-	-	-	-	Boat Barrier
2011	-			-	-	Boat Barrier

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M = Muck

W = Woody Debris

S = Sand

G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Point	Latitude	Longitude				
283	N44.81000868	W89.69376898				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	G	Pole Rake	0	0	No Weeds
2008	2	S	Pole Rake	0	0	-
2009	2	G	Pole Rake	0	0	No Weeds In CLP mat
2010	4	S	Pole Rake	0	0	-
2011	2	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
284	N44.80933352	W89.69377255				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	7	-	-	-	-	N/A No Reading
2008	7	-	-	-	-	N/A No Reading
2009	7	-	-	-	-	N/A No Reading
2010	7	-	-	-	-	N/A No Reading
2011	7	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
285	N44.80865836	W89.69377612				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	12	-	-	-	-	N/A No Reading
2008	12	-	-	-	-	N/A No Reading
2009	12	-	-	-	-	N/A No Reading
2010	12	-	-	-	-	N/A No Reading
2011	12	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
286	N44.80663289	W89.69378684				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	M	Pole Rake	0	0	-
2008	2	M,R	Pole Rake	0	0	-
2009	-	M	-	-	-	N/A Shallow Muck
2010	3	M/S	Pole Rake	0	0	-
2011	-	-	-	-	-	N/A Too Shallow

Point	Latitude	Longitude				
287	N44.80460742	W89.69379756				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	-	-	-	-	N/A Blocked By Down Tree
2008	-	-	-	-	-	N/A Blocked By Down Tree
2009	-	-	-	-	-	N/A Blocked By Down Tree
2010		-	-	•	-	N/A Blocked By Down Tree
2011	-	-	-	-	-	N/A Blocked By Down Tree

Point	Latitude	Longitude				
288	N44.80393226	W89.69380113				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	S	Pole Rake	0	0	No Weeds
2008	5	S	Pole Rake	0	0	No Weeds
2009	5	S	Pole Rake	0	0	No Weeds
2010	7	S	Pole Rake	0	0	No Weeds
2011	5	S	Pole Rake	0	0	No Weeds

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

N/A = Not Accessible
M = Muck

W = Woody Debris

S = Sand

G = Gravel

No Weeds

No Weeds

No Weeds

No Weeds

No Weeds

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Comments

Rk = Rock

CLP

0

0

0

0

0

Point	Latitude	Longitude	-	
289	N44.80190678	W89.69381184		
Year	Depth	Sediment	Method	EWM
2007	2	M/W	Pole Rake	0
2008	2	M,S	Pole Rake	0
2009	2	M/S	Pole Rake	0
2010	2	M	Pole Rake	0
2011	2	S	Pole Rake	0

Point	Latitude	Longitude				
290	N44.80123162	W89.69381541				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	S/W	Pole Rake	0	0	No Weeds
2008	2	S,W	Pole Rake	0	0	No Weeds
2009	2	S/W	Pole Rake	0	0	No Weeds
2010	3	S	Pole Rake	0	0	No Weeds
2011	1	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
291	N44.80055647	W89.69381898				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	W/S	Pole Rake	0	0	No Weeds
2008	4	S	Pole Rake	0	0	No Weeds
2009	4	M	Pole Rake	0	0	No Weeds
2010	6	S	Pole Rake	0	0	No Weeds
2011	4	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
292	N44.79988131	W89.69382255				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	M	Pole Rake	Ö	0	No Weeds
2008	5	М	Pole Rake	0	0	No Weeds
2009	5	M	Pole Rake	0	0	No Weeds
2010	6	M	Pole Rake	0	0	No Weeds
2011	4	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
293	N44.79920615	W89.69382612				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	S/M	Pole Rake	0	0	No Weeds
2008	4	M,S	Pole Rake	0	0	No Weeds
2009	5	M	Pole Rake	0	0	No Weeds
2010	6	M/S	Pole Rake	0	0	No Weeds
2011	4	M/S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
294	N44.79853099	W89.69382969				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	S	Pole Rake	0	0	No Weeds
2008	5	M,S	Pole Rake	0	0	No Weeds
2009	4	W	Pole Rake	0	0	No Weeds
2010	6	S/W	Pole Rake	0	0	No Weeds
2011	4	W	Polé Rake	0	0	No Weeds

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil N/A = Not Accessible

M = Muck

W = Woody Debris

S = Sand

G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Point	Latitude	Longitude				
295	N44.79785583	W89.69383327				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	S/M	Pole Rake	0	0	No Weeds
2008	4	S	Pole Rake	0	0	No Weeds
2009	4	S	Pole Rake	0	0	No Weeds
2010	6	S	Pole Rake	0	0	No Weeds
2011	6	М	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude	-			
296	N44.79718067	W89.69383684				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S	Pole Rake	0	0	No Weeds
2008	3	S	Pole Rake	0	0	No Weeds
2009	3	S	Pole Rake	0	0	No Weeds
2010	4	S	Pole Rake	0	0	No Weeds
2011	2	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
297	N44.79650551	W89.69384041				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	S	Pole Rake	0	0	No Weeds
2008	6	S	Pole Rake	0	0	No Weeds
2009	7	S	Pole Rake	0	0	No Weeds
2010	8	S	Pole Rake	0	0	No Weeds
2011	5	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
298	N44.79583035	W89.69384398				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	11	-	-	-	-	N/A No Reading
2008	11	-		-	-	N/A No Reading
2009	11	-	-	-	-	N/A No Reading
2010	11	-	-	-	-	N/A No Reading
2011	11	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
299	N44.7951552	W89.69384755				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	9	-	-	-	-	N/A No Reading
2008	9	-	-	-	-	N/A No Reading
2009	9	· _ ·	-	-	-	N/A No Reading
2010	9	-	-	-	-	N/A No Reading
2011	9	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
300	N44.79448004	W89.69385112				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	S	Pole Rake	0	0	No Weeds
2008	4	S	Pole Rake	0	0	No Weeds
2009	4	S	Pole Rake	0	0	No Weeds
2010	6	S	Pole Rake	0	0	No Weeds
2011	4	S	Pole Rake	0	0	No Weeds

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

N/A =	= Not	Accessible	Э
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- M = Muck
- W = Woody Debris

S = Sand

G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Rk = Rock

Point	Latitude	Longitude				
301	N44.79380488	W89.69385468				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	9	G	Pole Rake	0	0	No Weeds
2008	9	-		-	-	N/A No Reading
2009	9	-	-	-	-	N/A No Reading
2010	9	-	-	-	0	N/A No Reading
2011	9	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
302	N44.79312972	W89.69385825				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	13	-	· -	-	-	N/A No Reading
2008	13	-	-	-	-	N/A No Reading
2009	13	-	-	-	-	N/A No Reading
2010	13	-	-	-	-	N/A No Reading
2011	13			-	-	N/A No Reading

Point	Latitude	Longitude				
303	N44.79245456	W89.69386182				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	13	<b>-</b> 1000	-	-	-	N/A No Reading
2008	13	-	-	-	-	N/A No Reading
2009	13	-	· -	-	-	N/A No Reading
2010	13	-		-	-	N/A No Reading
2011	13	-		-	-	N/A No Reading

Point	Latitude	Longitude				
304	N44.81068129	W89.69281695				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	G	Pole Rake	0	0	-
2008	3	G	Pole Rake	0	0	No Weeds
2009	3	G/W	Pole Rake	0	0	No Weeds
2010	5	G	Pole Rake	0	0	No Weeds
2011	5	G	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
305	N44.81000613	W89.69282053				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	<u>. 11</u>	-		-	-	N/A No Reading
2008	11		-	-	-	N/A No Reading
2009	11	<b>-</b> 5.	-	-	-	N/A No Reading
2010	11	-	. <b>-</b>	-	-	N/A No Reading
2011	11		-	-	-	N/A No Reading

Point	Latitude	Longitude				
306	N44.80933097	W89.69282411				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	14	-		-	-	N/A No Reading
2008	14	-	-	-	-	N/A No Reading
2009	14	- 111	-	-	-	N/A No Reading
2010	14	-	-	-	-	N/A No Reading
2011	14	-	-	-	-	N/A No Reading

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Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon Crew: RAL/CTM Datum: WGS84

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil N/A = Not Accessible M = Muck W = Woody Debris S = Sand G = Gravel R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.) Rk = Rock

Point	Latitude	Longitude				
307	N44.80798066	W89.69283128				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	-	-	-	0	N/A Blocked By Logs
2008	_	-	-	-	-	N/A Blocked By Logs
2009	-	-	-	-	-	N/A Blocked By Logs
2010	-	-	-	-	-	N/A Blocked By Logs
2011	-	-	- 1	-	-	N/A Blocked By Logs

Point	Latitude	Longitude				
308	N44.80663034	W89.69283845				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	M	Pole Rake	1	0	-
2008	1	M,S	Pole Rake	0	0	-
2009	1	M/S	Pole Rake	0	0	-
2010	3	S	Pole Rake	0	0	-
2011	1	M/S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
309	N44.80595519	W89.69284203				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	М	-	-	-	N/A Shallow Muck
2008	-	М	-	-	-	N/A Shallow Muck
2009	_	М	-	-	-	N/A Shallow Muck
2010	-	-	-	-	-	N/A Shallow Muck
2011	-	-	-	-	-	N/A Shallow Muck

Point	Latitude	Longitude				
310	N44.80528003	W89.69284561				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M	Pole Rake	0	0	-
2008	2	S	Pole Rake	0	0	No Weeds
2009	2	S	Pole Rake	0	0	No Weeds
2010	2	S	Pole Rake	0	0	No Weeds
2011	2	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
311	N44.80460487	W89.69284919				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	S	Pole Rake	0	0	-
2008	2	S	Pole Rake	0	1	-
2009	1	S	Pole Rake	0	0	No Weeds
2010	1	M	Pole Rake	0	0	No Weeds
2011	2	S	Pole Rake	0	0	-

Point	Latitude	Longitude				
312	N44.80392971	W89.69285278				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S	Pole Rake	0	0	No Weeds
2008	3	S	Pole Rake	0	0	No Weeds
2009	3	S	Pole Rake	0	0	No Weeds
2010	5	S	Pole Rake	0	0	No Weeds
2011	3	S	Pole Rake	0	0	No Weeds

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- S = Sand
- G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
- Rk = Rock

	Point	Latitude	Longitude				
I	313	N44.80257939	W89.69285994				
	Year	Depth	Sediment	Method	EWM	CLP	Comments
I	2007	1	M	Pole Rake	0	0	-
. [	2008	1	M	Pole Rake	0	0	-
	2009	-	M	-	-	-	N/A Shallow Muck
	2010	2	M	Pole Rake	0	0	No Weeds
	2011	-	-	-	-	-	N/A Too Shallow

Point	Latitude	Longitude				
314	N44.80190424	W89.69286352				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	S/M	Pole Rake	0	0	No Weeds
2008	1	S	Pole Rake	0	0	No Weeds
2009	1	S	Pole Rake	0	0	No Weeds
2010	1	S	Pole Rake	0	0	No Weeds
2011	1	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
315	N44.80122908	W89.69286711				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S	Pole Rake	0	0	No Weeds
2008	3	S,W	Pole Rake	0	0	No Weeds
2009	3	S	Pole Rake	0	0	No Weeds
2010	5	S/W	Pole Rake	0	0	No Weeds
2011	2	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude					
316	N44.80055392	W89.69287069					
Year	Depth	Sediment	Method	EWM	CLP	Comments	
2007	4	M	Pole Rake	0	0	No Weeds	•
2008	3	W	Pole Rake	0	0	No Weeds	
2009	4	W	Pole Rake	0	0	No Weeds	
2010	5	W	Pole Rake	0	0	No Weeds	
2011	4	S	Pole Rake	0	Ó	No Weeds	

Point	Latitude	Longitude	1					
317	N44.79987876	W89.69287427	:					
Year	Depth	Sediment	Method	EWM	CLP	T	Comments	
2007	4	M	Pole Rake	0	0	No Weeds		
2008	4	W	Pole Rake	0	0	No Weeds		
2009	3	W	Pole Rake	0	0	No Weeds		
2010	6	M	Pole Rake	0	0	No Weeds		
2011	4	S/W	Pole Rake	0	0	No Weeds		

Point	Latitude	Longitude						
318	N44.7992036	W89.69287785					:	
Year	Depth	Sediment	Method	EWM	CLP		Comments	
2007	4	M/W	Pole Rake	0	0	No Weeds		
2008	4	W	Pole Rake	0	0	No Weeds		
2009	4	M	Pole Rake	0	0.	No Weeds		
2010	6	M	Pole Rake	0	0	No Weeds		 <u> </u>
2011	4	S	Pole Rake	0	0	No Weeds		

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M = Muck

W = Woody Debris

S = Sand

G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Rk = Rock

	Point	Latitude	Longitude				
Ī	319	N44.79852844	W89.69288143				
	Year	Depth	Sediment	Method	EWM	CLP	Comments
	2007	5	M	Pole Rake	0	0	No Weeds
	2008	5	M	Pole Rake	0	0	No Weeds
	2009	5	M	Pole Rake	0	0	No Weeds
	2010	6	M	Pole Rake	0	0	No Weeds
	2011	5	M/S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
320	N44.79785329	W89.69288502				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	7	-	-	-	-	N/A No Reading
2008	7	-	-	-	-	N/A No Reading
2009	7	-	-	-	-	N/A No Reading
2010	7	-	-	-	-	N/A No Reading
2011	7		-	-	-	N/A No Reading

Point	Latitude	Longitude				
321	N44.79717813	W89.6928886				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	S/W	Pole Rake	0	0	No Weeds
2008	4	S,W	Pole Rake	0	0	No Weeds
2009	5	S	Pole Rake	0	0	No Weeds
2010	4	S	Pole Rake	0	0	No Weeds
2011	4	S/W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
322	N44.79650297	W89.69289218				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	8	-	-	-	-	N/A No Reading
2008	8	-	-	-	-	N/A No Reading
2009	8	- 1	-	-	-	N/A No Reading
2010	8	-	-	-	-	N/A No Reading
2011	8	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
323	N44.79582781	W89.69289576				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	8	-	-	-	-	N/A No Reading
2008	8	-	-	-	-	N/A No Reading
2009	8	-	-	-	-	N/A No Reading
2010	8	-	-	-	-	N/A No Reading
2011	8	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
324	N44.79515265	W89.69289934				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S	Pole Rake	0	0	No Weeds
2008	4	S	Pole Rake	0	0	No Weeds
2009	3	S	Pole Rake	0	0	No Weeds
2010	5	s	Pole Rake	0	0	No Weeds
2011	3	S	Pole Rake	0	0	No Weeds

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R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.) Rk = Rock

Point	Latitude	Longitude				
325	N44.79447749	W89.69290292				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	7	S	Pole Rake	0	0	No Weeds
2008	7	-	· -	-	-	N/A No Reading
2009	7	-	-	-	-	N/A No Reading
2010	7	-	-	-	-	N/A No Reading
2011	7	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
326	N44.79380233	W89.6929065				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	11	-		-	-	N/A No Reading
2008	11	-	-	-	-	N/A No Reading
2009	11	-	-	-	-	N/A No Reading
2010	11	-	-	-	-	N/A No Reading
2011	11	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
327	N44.82080608	W89.69181455				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	M	-	-	-	N/A Shallow Muck
2008	-	М	-	-	-	N/A Shallow Muck
2009	-	M	-	-	-	N/A Shallow Muck
2010	-	-	-	-	-	N/A Shallow Muck
2011	-	-	-	-	-	N/A Shallow Muck

Point	Latitude	Longitude				
328	N44.81405452	W89.69185051				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	9	-	-	· -	-	N/A No Reading
2008	9	-	-	-	-	N/A No Reading
2009	9	-	-	-	-	N/A No Reading
2010	9	-	-	•	-	N/A No Reading
2011	9	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
329	N44.81337936	W89.69185411				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	10	-	-	-	-	N/A No Reading
2008	10	-	-	<b>6</b> 7	-	N/A No Reading
2009	10	-	-	-	-	N/A No Reading
2010	10	-	- 1	-	-	N/A No Reading
2011	10	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
330	N44.8127042	W89.6918577				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	11	-	-	-	-	N/A No Reading
2008	11	-	-	-	-	N/A No Reading
2009	11	-		-	-	N/A No Reading
2010	11	-		-	-	N/A No Reading
2011	11	-	-	-	-	N/A No Reading

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Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon Crew: RAL/CTM Datum: WGS84 NWM = North

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

- N/A = Not Accessible M = Muck W = Woody Debris S = Sand G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Point	Latitude	Longitude				
331	N44.81202905	W89.6918613				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	11	-	-	-	-	N/A No Reading
2008	11	-	-	-	-	N/A No Reading
2009	11	-	-	-	-	N/A No Reading
2010	11	-	-	-		N/A No Reading
2011	11	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
332	N44.81135389	W89.69186489				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	13	-	-	-	-	N/A No Reading
2008	13	-		-	-	N/A No Reading
2009	13	-	-	-	-	N/A No Reading
2010	13	-	-	-	-	N/A No Reading
2011	13	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
333	N44.81067873	W89.69186849				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	15	-	-	-	-	N/A No Reading
2008	15	-	-	-	-	N/A No Reading
2009	15	-	-	-	-	N/A No Reading
2010	15	-	-	-	-	N/A No Reading
2011	15	-	-	-		N/A No Reading

Point	Latitude	Longitude				
334	N44.81000358	W89.69187208				·
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	11		-	-	-	N/A No Reading
2008	11	-	-	-	-	N/A No Reading
2009	11	-	-	-	-	N/A No Reading
2010	11	-	-	-	-	N/A No Reading
2011	11	-		-	-	N/A No Reading

Point	Latitude	Longitude				
335	N44.8079781	W89.69188286				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	-	-	-	-	N/A Land
2008	-	-	-	-	-	N/A Land
2009	-	-	-	_		N/A Land
2010	-	-	-	-	-	N/A Land
2011	-	-	-	-	-	N/A Land

Point	Latitude	Longitude				
336	N44.80730295	W89.69188646				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M	Pole Rake	1	0	-
2008	N/A	-	-	-	-	Downed Tree
2009	2	M	Pole Rake	0	0	-
2010	3	S	Pole Rake	0	0	-
2011	1	М	Pole Rake	0	0	No Weeds

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil N/A = Not Accessible

Comments

M = Muck W = Woody Debris

S = Sand

G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Rk = Rock

No Weeds

No Weeds

No Weeds

L	Point	Latitude	Longitude			
Ε	337	N44.80662779	W89.69189005			
	Year	Depth	Sediment	Method	EWM	CLP
	2007	2	M	Pole Rake	1	0
L	2008		М	Pole Rake	0	0
	2009	2	М	Pole Rake	0	0
	2010	4	M	Pole Rake	0	0
L	2011	2	M/S	Pole Rake	0	0

Point	Latitude	Longitude					
338	N44.80460231	W89.69190083					
Year	Depth	Sediment	Method	EWM	CLP	Comments	
2007	-	-	-	-	-	N/A Blocked By Bullrush	
2008	-	-	-	-	-	N/A Blocked By Bullrush	
2009			-	-	-	N/A Blocked By Bullrush	
2010	•	-	-	-	-	N/A Blocked By Bullrush	
2011	-	-		_	•	N/A Blocked By Bullrush	

Point	Latitude	Longitude					
339	N44.80392716	W89.69190443					
Year	Depth	Sediment	Method	EWM	CLP	1	Comments
2007	3	S	Pole Rake	0	0	-	
2008	3	S	Pole Rake	0	0	No Weeds	·····
2009	3	S	Pole Rake	0	0	No Weeds	Secchi Reading 2.2'
2010	5	S	Pole Rake	0	0	No Weeds	Secchi Reading 2.8'
2011	2	S	Pole Rake	0	0	No Weeds	Secchi Reading 2.9'

Point	Latitude	Longitude				
340	N44.80190168	W89.69191521				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	S	Pole Rake	0	0	No Weeds
2008	2	S	Pole Rake	0	0	No Weeds
2009	2	S	Pole Rake	0	0	No Weeds
2010	2	S	Pole Rake	0	0	No Weeds
2011	1	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude					
341	N44.80122652	W89.6919188	1				
Year	Depth	Sediment	Method	EWM	CLP	Comments	
2007	3	S/M	Pole Rake	0	0	No Weeds	
2008	3	S	Pole Rake	0	0	No Weeds	
2009	3	S/W	Pole Rake	0	0	No Weeds	
2010	5	S/W	Pole Rake	0	0	No Weeds	
2011	3	S	Pole Rake	0	0	No Weeds	

Point	Latitude	Longitude				
342	N44.80055137	W89.69192239	1			
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S/W	Pole Rake	0	0	No Weeds
2008	3	S	Pole Rake	0	0	No Weeds
2009	3	W	Pole Rake	0	0	No Weeds
2010	5	S/W	Pole Rake	0	0	No Weeds
2011	3	S	Pole Rake	0	0	No Weeds

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W = Woody Debris

S = Sand

G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Point	Latitude	Longitude				
343	N44.79987621	W89.69192599			_	
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	W	Pole Rake	0	0	No Weeds
2008	4	W	Pole Rake	0	0	No Weeds
2009	4	S	Pole Rake	0	0	No Weeds
2010	5	W	Pole Rake	1	0	-
2011	3	S/W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
344	N44.79920105	W89.69192958				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S	Pole Rake	0	0	No Weeds
2008	3	S	Pole Rake	0	0	No Weeds
2009	3	S	Pole Rake	0	0	No Weeds
2010	4	S	Pole Rake	0	0	No Weeds
2011	3	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
345	N44.79852589	W89.69193317				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	W/M	Pole Rake	0	0	No Weeds
2008	4	M,S	Pole Rake	0	0	No Weeds
2009	3	W	Pole Rake	0	0	No Weeds
2010	5	M/S	Pole Rake	0	0	No Weeds
2011	3	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
346	N44.79785073	W89.69193677				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	8	-	-	-	-	N/A No Reading
2008	8	-	-	-	-	N/A No Reading
2009	8	-	-	-	-	N/A No Reading
2010	8	-	-	-	-	N/A No Reading
2011	8	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
347	N44.79717557	W89.69194036				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	7	-	-	-	-	N/A No Reading
2008	7	-	-	-	-	N/A No Reading
2009	7	-	-	-	-	N/A No Reading
2010	7	-	-	-	-	N/A No Reading
2011	7	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
348	N44.79650041	W89.69194395				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	8	-	-	-	-	N/A No Reading
2008	8		-	-	-	N/A No Reading
2009		-	-	_	-	N/A No Reading
2010		-	-	-	-	N/A No Reading
2011	8	-		-	-	N/A No Reading

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- M = Muck W = Woody Debris
- S = Sand
- G = Gravel

No Weeds

No Weeds

No Weeds

No Weeds

No Weeds

CLP

0 0

0

0

0

- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.) Rk = Rock

Comments

Point	Latitude	Longitude		
349	N44.79582525	W89.69194754		
Year	Depth	Sediment	Method	EWM
2007	5	S/W	Pole Rake	0
2008	3	S	Pole Rake	0
2009	3	S	Pole Rake	0
2010	6	S	Pole Rake	0
2011	4	S	Pole Rake	0

Point	Latitude	Longitude				
350	N44.7951501	W89.69195113				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	9	-	-	-	-	N/A No Reading
2008	9	-	-	_	-	N/A No Reading
2009	9	-	-	-	-	N/A No Reading
2010	9	-	-	-	-	N/A No Reading
2011	9	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
351	N44.79447494	W89.69195473				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	9	: -	-	-	-	N/A No Reading
2008	9	-	-	-	-	N/A No Reading
2009	9	-	-	-	-	N/A No Reading
2010	9	-	-		-	N/A No Reading
2011	9	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
352	N44.79379978	W89.69195832				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	G	Pole Rake	Ö	0	No Weeds
2008	2	G,S	Pole Rake	0	0	No Weeds
2009	2	G	Pole Rake	0	0	No Weeds
2010	4	G/S	Pole Rake	0	0	No Weeds
2011	1	G	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
353	N44.82215383	W89.69085871				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	-	-	-	-	N/A Blocked By Logs
2008	•	-	-	-	-	N/A Blocked By Logs
2009	-	-	-		-	N/A Blocked By Logs
2010	-	-	- 1	-	-	N/A Blocked By Logs
2011	-	-	-	-	-	N/A Blocked By Logs

Point	Latitude	Longitude				
354	N44.82012836	W89.69086953				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	-	-	-	-	N/A Blocked By Down Tree
2008	-		-	-	-	N/A Blocked By Down Tree
2009	-	-	-	-	-	N/A Blocked By Down Tree
2010	- 1		-	-	-	N/A Blocked By Down Tree
2011	-	-	-	-	-	N/A Blocked By Down Tree

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- W = Woody Debris
- S = Sand
- G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
- Rk = Rock

Point	Latitude	Longitude				
355	N44.81945321	W89.69087314				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M	Pole Rake	0	0	-
2008	2	M	Pole Rake	0	0	-
2009	2	М	Pole Rake	0	0	-
2010	4	M	Pole Rake	0	0	No Weeds
2011	2	M	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
356	N44.81810289	W89.69088035				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	М	-	-	-	N/A Shallow Muck
2008	-	M	-	-	-	N/A Shallow Muck
2009	-	M	- 1	-	-	N/A Shallow Muck
2010	-	-	-	-	-	N/A Shallow Muck
2011	-	-	-	-	-	N/A Shallow Muck

Point	Latitude	Longitude				
357	N44.81675258	W89.69088757				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	-	-	-	-	N/A Land
2008	-	-	-	-	-	N/A Land
2009	-	-	-	-	-	N/A Land
2010	-	-		-	-	N/A Land
2011	-	-	-	-	-	N/A Land

Point	Latitude	Longitude				
358	N44.81405196	W89.69090199				·
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	8	-	-	-	-	N/A No Reading
2008	8	-	-	-	-	N/A No Reading
2009	8	-	-	-	-	N/A No Reading
2010	8	-	-	-	-	N/A No Reading
2011	8	-	-		-	N/A No Reading

Point	Latitude	Longitude				
359	N44.8133768	W89.6909056				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	9	-	-	-	-	N/A No Reading
2008	9	-	-	-	-	N/A No Reading
2009	9	-	-	-	-	N/A No Reading
2010	9	-	-	-	-	N/A No Reading
2011	9	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
360	N44.81270164	W89.69090921				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	10	-	-	-	-	N/A No Reading
2008	10	-	-	-	-	N/A No Reading
2009	10	- 1	-	-	-	N/A No Reading
2010	10	-	-	-	-	N/A No Reading
2011	10	-	-	-	-	N/A No Reading

(799**3)** 

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Point	Latitude	Longitude				
361	N44.81202648	W89.69091281				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	10	-	-	-	-	N/A No Reading
2008	10	-	-	-	-	N/A No Reading
2009	10	-	-	-		N/A No Reading
2010	10	-	-	-	-	N/A No Reading
2011	10	-		-	-	N/A No Reading

Point	Latitude	Longitude				
362	N44.81135133	W89.69091642				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	G	Pole Rake	0	0	No Weeds
2008	4	G	Pole Rake	0	0	No Weeds
2009	. 4	G	Pole Rake	0	0	No Weeds
2010	5	G	Pole Rake	0	0	No Weeds
2011	3	G	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
363	N44.80797554	W89.69093445				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	S	Pole Rake	0	0	No Weeds
2008	3	S	Pole Rake	0	0	No Weeds
2009	3	S	Pole Rake	0	0	No Weeds
2010	5	S	Pole Rake	0	0	No Weeds
2011	3	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude						
364	N44.80730038	W89.69093805						
Year	Depth	Sediment	Method	EWM	CLP		Comments	
2007	-	-	-	-	-	N/A Land		
2008	-	-	-		-	N/A Land		· .
2009	-	-	-	-	-	N/A Land		
2010	-		- 1	-	-	N/A Land		
2011	-	-	-		- 1	N/A Land		;

Point	Latitude	Longitude						
365	N44.80662523	W89.69094166						
Year	Depth	Sediment	Method	EWM	CLP	1	Comments	
2007	3	M	Pole Rake	0	0	No Weeds		
2008	3	M,S	Pole Rake	0	0	No Weeds		
2009	2	M/S	Pole Rake	0	0	-		
2010	4	S	Pole Rake	0	0	-		
2011	2	M/S	Pole Rake	0	0	No Weeds		1.1

Point	Latitude	Longitude						
366	N44.80595007	W89.69094526						1.1.1
Year	Depth	Sediment	Method	EWM	CLP	T	Comments	
2007	2	M	Pole Rake	0	0	No Weeds	·····	
2008	2	M,S	Pole Rake	0	0	No Weeds		
2009	2	M/S	Pole Rake	0	0	No Weeds		
2010	3	M	Pole Rake	0	0	No Weeds		
2011	2	M/S	Pole Rake	0	0	No Weeds		

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G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Point	Latitude	Longitude				
367	N44.80527491	W89.69094887				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	S	Pole Rake	0	0	No Weeds
2008	2	M,S	Pole Rake	0	0	No Weeds
2009	1	S	Pole Rake	0	0	No Weeds
2010	3	S	Pole Rake	0	0	No Weeds
2011	2	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
368	N44.80459975	W89.69095247				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	-	-	-	-	N/A Land
2008	-	-	-	-	-	N/A Land
2009	-	-	-	-	-	N/A Land
2010	-	-	-	-	-	N/A Land
2011	-	-	-	-	-	N/A Land

Point	Latitude	Longitude				
369	N44.80392459	W89.69095608				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S/G	Pole Rake	0	0	-
2008	3	S	Pole Rake	0	0	-
2009	2	S	Pole Rake	0	0	-
2010	5	S	Pole Rake	0	0	No Weeds
2011	2	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
370	N44.80324944	W89.69095968				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	S/G	Pole Rake	0	0	No Weeds
2008	5	S,W	Pole Rake	0	0	No Weeds
2009	5	S/W	Pole Rake	0	0	No Weeds
2010	6	Ŵ	Pole Rake	0	0	No Weeds
2011	4	S/W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
371	N44.80257428	W89.69096329				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	-	- 1	-	-	N/A Land
2008		-	-	-	-	N/A Land
2009		-	-	-	-	N/A Land
2010		-	-	-	-	N/A Land
2011		-	-	-	-	N/A Land

Point	Latitude	Longitude				
372	N44.80189912	W89.69096689				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M/W	Pole Rake	0	0	No Weeds
2008	2	S	Pole Rake	0	0	No Weeds
2009	2	M/S	Pole Rake	0	0	No Weeds
2010	2	w	Pole Rake	0	0	No Weeds
2011	1	S	Pole Rake	0	0	No Weeds

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W = Woody Debris

S = Sand

G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Rk = Rock

Point	Latitude	Longitude				
373	N44.80122396	W89.6909705	1			
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	M	Pole Rake	0	0	No Weeds
2008	3	S	Pole Rake	0	0	No Weeds
2009	3	M	Pole Rake	0	0	No Weeds
2010	3	M	Pole Rake	0	0	No Weeds
2011	3	M/S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude	1			
374	N44.8005488	W89.6909741	1			
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	M	Pole Rake	0	0	No Weeds
2008	3	S,W	Pole Rake	0	0	No Weeds
2009	3	W	Pole Rake	0	0	No Weeds
2010	5	S	Pole Rake	0	0	No Weeds
2011	3	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
375	N44.79987365	W89.6909777				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S	Pole Rake	0	0	No Weeds
2008	3	S,W	Pole Rake	0	0	No Weeds
2009	3	W	Pole Rake	0	0	No Weeds
2010	5	M/S	Pole Rake	0	0	No Weeds
2011	3	S/W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
376	N44.79919849	W89.69098131				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S	Pole Rake	0	0	No Weeds
2008	3	S	Pole Rake	0	0	No Weeds
2009	3	S/W	Pole Rake	0	0	No Weeds
2010	4	S/W	Pole Rake	0	0	-
2011	2	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
377	N44.79852333	W89.69098491	1			
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S	Pole Rake	0	0	No Weeds
2008	3	S	Pole Rake	0	0	No Weeds
2009	3	S	Pole Rake	0	0	No Weeds
2010	4	S	Pole Rake	0	0	No Weeds
2011	3	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude	-			
378	N44.79784817	W89.69098852	1. I.			
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	8	-	-	~		N/A No Reading
2008		-	-	-	-	N/A No Reading
2009	8		-	-	-	N/A No Reading
2010	8	-	-	-	-	N/A No Reading
2011	8	-	-	_	-	N/A No Reading

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- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Rk = Rock

Point	Latitude	Longitude					
379	N44.79717301	W89.69099212					
Year	Depth	Sediment	Method	EWM	CLP	Comments	
2007	8	-	-	+	-	N/A No Reading	
2008	8	-	-	-	-	N/A No Reading	
2009	8	-	-	-	-	N/A No Reading	
2010	8	-	-	-	-	N/A No Reading	
2011	8	-		-	-	N/A No Reading	

Point	Latitude	Longitude					
380	N44.79649785	W89.69099572					
Year	Depth	Sediment	Method	EWM	CLP	Comments	
2007	7	<b>-</b> .	-	-	-	N/A No Reading	
2008	7	- 1	-	-	-	N/A No Reading	
2009	7	-	-	-	-	N/A No Reading	
2010	7	-	-	-	-	N/A No Reading	
2011	7	-	-	-	-	N/A No Reading	

Point	Latitude	Longitude				
381	N44.79582269	W89.69099933				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S .	Pole Rake	0	0	No Weeds
2008	3	S	Pole Rake	0	0	No Weeds
2009	3	S	Pole Rake	0	0	No Weeds
2010	5	S	Pole Rake	0	0	No Weeds
2011	2	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
382	N44.79514753	W89.69100293				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S/G	Pole Rake	0	0	No Weeds
2008	3	G	Pole Rake	0	0	No Weeds
2009	3	G	Pole Rake	0	0	No Weeds
2010	3	G	Pole Rake	0	0	No Weeds
2011	1	G	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
383	N44.82080095	W89.6899173				· · · · · · · · · · · · · · · · · · ·
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	<b>.</b> .	-	-	-	N/A Blocked By Logs
2008	-	-	-	_	-	N/A Blocked By Logs
2009	-	-	-	-	-	N/A Blocked By Logs
2010		-	-	-	-	N/A Blocked By Logs
2011		-	-	-	-	N/A Blocked By Logs

Point	Latitude	Longitude				
384	N44.81945064	W89.68992453				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	-	-	-	-	N/A Blocked By Logs
2008	-	-	-	-	-	N/A Blocked By Logs
2009	-	-	-	-		N/A Blocked By Logs
2010		-	-	-	-	N/A Blocked By Logs
2011		-		-	-	N/A Blocked By Logs

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil N/A = Not Accessible

M = Muck

W = Woody Debris

S = Sand

G = Gravel

No Weeds

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Comments

Rk = Rock

CLP

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L	Point	Latitude	Longitude		
Ε	385	N44.81742517	W89.68993539		
E	Year	Depth	Sediment	Method	EWM
L	2007	2	M	Pole Rake	0
	2008		M	Pole Rake	1
	2009	2	M	Pole Rake	0
	2010	4	М	Pole Rake	1
L	2011	2	M	Pole Rake	0

Point	Latitude	Longitude	1			
386	N44.81607485	W89.68994263				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	M	Pole Rake	0	0	No Weeds
2008	2	M	Pole Rake	0	0	No Weeds
2009	2	M	Pole Rake	0	0	No Weeds
2010	4	M	Pole Rake	1	0	-
2011	2	M	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude	1				
387	N44.8153997	W89.68994624					
Year	Depth	Sediment	Method	EWM	CLP	1	Comments
2007	3	M	Pole Rake	1	0	-	
2008	3	M	Pole Rake	1	0	-	
2009	3	M/W	Pole Rake	0	0	-	
2010	5	W	Pole Rake	0	0	No Weeds	······································
2011	3	М	Pole Rake	0	0	No Weeds	

Point	Latitude	Longitude				
388	N44.81472454	W89.68994986				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	W/M	Pole Rake	0	0	No Weeds
2008	3	W	Pole Rake	0	0	No Weeds
2009	3	M	Pole Rake	0	0	No Weeds
2010	6	M	Pole Rake	0	0	No Weeds
2011	4	M	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude	1			14	
389	N44.81404938	W89.68995348					
Year	Depth	Sediment	Method	EWM	CLP	Comm	nents
2007	6	S	Pole Rake	0	0	No Weeds	
2008	6	_	- 1	-	-	N/A No Reading	
2009	6	-	-	-	-	N/A No Reading	
2010	6	-	-	-		N/A No Reading	
2011	6	-		-	-	N/A No Reading	

Point	Latitude	Longitude					
390	N44.80797297	W89.68998603					
Year	Depth	Sediment	Method	EWM	CLP	l	Comments
2007	3	S	Pole Rake	0	0	-	
2008	3	S	Pole Rake	0	0	No Weeds	
2009	1	S/W	Pole Rake	0	0	No Weeds	
2010	2	W	Pole Rake	0	0	No Weeds	
2011	1	S	Pole Rake	0	0	No Weeds	

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil N/A = Not Accessible M = Muck

W = Woody Debris

S = Sand

G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Point	Latitude	Longitude				
391	N44.80729781	W89.68998965				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M	Pole Rake	1	0	-
2008	2	M,S	Pole Rake	0	0	No Weeds
2009	2	M/S	Pole Rake	0	0	No Weeds
2010	1	M	Pole Rake	0	0	
2011	2	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
392	N44.80662266	W89.68999327				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M	Pole Rake	0	0	No Weeds
2008	3	M	Pole Rake	0	0	No Weeds
2009	2	S/W	Pole Rake	0	0	No Weeds
2010	2	M	Pole Rake	0	0	-
2011	2	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
393	N44.8059475	W89.68999688				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M	Pole Rake	0	0	No Weeds
2008	2	M,S	Pole Rake	0	0	No Weeds
2009	2	M/S	Pole Rake	0	0	No Weeds
2010	3	М	Pole Rake	0	0	-
2011	2	M/S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
394	N44.80527234	W89.6900005				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	S	Pole Rake	0	0	No Weeds
2008	4	clay	Pole Rake	0	0	No Weeds
2009	4	S	Pole Rake	0	0	No Weeds
2010	5	S	Pole Rake	0	0	No Weeds
2011	5	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
395	N44.80459718	W89.69000411				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	M	Pole Rake	0	0	-
2008	2	M	Pole Rake	0	0	No Weeds
2009	1	M/S	Pole Rake	0	0	No Weeds
2010	2	s	Pole Rake	0	0	No Weeds
2011	1	s	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
396	N44.80392202	W89.69000773				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	S	Pole Rake	0	0	-
2008	2	S	Pole Rake	0	0	No Weeds
2009	2	S	Pole Rake	0	0	No Weeds
2010	4	S	Pole Rake	0	0	-
2011	2	S	Pole Rake	0	0	No Weeds

Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon Crew: RAL/CTM Datum: WGS84 Crew: NWM = North

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

CLP

0

0

0

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No Weeds

No Weeds

No Weeds

No Weeds

No Weeds

N/A = Not Accessible
M = Muck
W = Woody Debris
S = Sand
G = Gravel
R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
Rk = Rock

Comments

Point Latitude Longitude 397 N44.80324687 W89.69001135 Year Depth Sediment Method EWM 2007 S/G 5 Pole Rake 0 2008 5 S Pole Rake 0 2009 5 S Pole Rake 0 2010 7 S Pole Rake 0 2011 4 S Pole Rake 0

Point	Latitude	Longitude	1			
398	N44.80122139	W89.69002219				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S/W	Pole Rake	1	0	
2008	3	\$,W	Pole Rake	0	0	
2009	3	S/W	Pole Rake	0	0	No Weeds
2010	3	W	Pole Rake	0	0	No Weeds
2011	2	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
399	N44.80054623	W89.69002581				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S	Pole Rake	0	0	No Weeds
2008	3	S	Pole Rake	0	0	No Weeds
2009	3	S	Pole Rake	0	0	No Weeds
2010	4	S	Pole Rake	0	0	No Weeds
2011	2	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
400	N44.79987108	W89.69002942				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	S/M	Pole Rake	0	0	No Weeds
2008	3	S	Pole Rake	0	0	No Weeds
2009	3	M et	Pole Rake	1	0	-
2010	5	S	Pole Rake	1	0	-
2011	3	M/S	Pole Rake	1	0	-

Point	Latitude	Longitude				
401	N44.79919592	W89.69003304				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	S	Pole Rake	0	0	No Weeds
2008	2	S	Pole Rake	1	0	-
2009	2	S	Pole Rake	0	0	No Weeds
2010	3	S	Pole Rake	0	0	-
2011	1	S S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
402	N44.79852076	W89.69003665				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S	Pole Rake	0	0	No Weeds
2008	4	S	Pole Rake	0	0	No Weeds
2009	4	S	Pole Rake	0	0	No Weeds
2010	7	M	Pole Rake	0	0	No Weeds
2011	3	S	Pole Rake	0	0	No Weeds

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Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon Crew: RAL/CTM Datum: WGS84 NWM = Norther

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

- N/A = Not Accessible M = Muck
- W = Woody Debris
- S = Sand
- G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Rk = Rock

Point	Latitude	Longitude				
403	N44.7978456	W89.69004027				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	10	-	-	-	-	N/A No Reading
2008	10	-	-	-	-	N/A No Reading
2009	10	-	-	-	-	N/A No Reading
2010	10	-	-	-	-	N/A No Reading
2011	10	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
404	N44.79717044	W89.69004388				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	9	-	-	-	-	N/A No Reading
2008	9	-	-	-	-	N/A No Reading
2009	9	-	-	-	-	N/A No Reading
2010	9	-	-	-	-	N/A No Reading
2011		-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
405	N44.79649528	W89.69004749				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	S	Pole Rake	0	0	No Weeds
2008	2	S	Pole Rake	0	0	No Weeds
2009	2	S	Pole Rake	0	0	No Weeds
2010	3	S	Pole Rake	0	0	No Weeds
2011	1	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
406	N44.79582012	W89.69005111				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	S/G	Pole Rake	0	0	No Weeds
2008	1	G	Pole Rake	0	0	No Weeds
2009	2	G/S	Pole Rake	0	0	No Weeds
2010	3	G	Pole Rake	0	0	No Weeds
2011	1	G	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
407	N44.79514496	W89.69005472				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	S	Pole Rake	0	0	No Weeds
2008	1	S	Pole Rake	0	0	No Weeds
2009	1	S	Pole Rake	0	0	No Weeds
2010	2	S	Pole Rake	0	0	No Weeds
2011	1	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
408	N44.82012321	W89.6889723				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	М	Pole Rake	0	0	No Weeds
2008	2	M	Pole Rake	0	0	No Weeds
2009	-	-	-	-	-	N/A Blocked By Logs
2010	4	М	Pole Rake	0	0	-
2011	-	-	-	-	-	N/A Blocked By Logs

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Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon Crew: RAL/CTM Datum: WGS84 EWM = North

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

- N/A = Not Accessible
- M = Muck
- W = Woody Debris
- S = Sand
- G = Gravel

No Weeds No Weeds

No Weeds

No Weeds

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Comments

	Point	Latitude	Longitude			
E	409	N44.81809774	W89.68898319			
	Year	Depth	Sediment	Method	EWM	CLP
Ľ	2007	2	M	Pole Rake	0	0
	2008	3	М	Pole Rake	0	0
	2009	2	М	Pole Rake	0	0
	2010	5	M	Pole Rake	0	0
	2011	2	М	Pole Rake	0	0

Point	Latitude	Longitude				
410	N44.81674743	W89.68899045				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	М	Pole Rake	1	0	
2008	3	M	Pole Rake	1	0	-
2009	3	M	Pole Rake	0	0	-
2010	5	М	Pole Rake	0	0	-
2011	3	М	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
411	N44.81607227	W89.68899408				•
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	M	Pole Rake	1	0	-
2008	3	M	Pole Rake	1	0	-
2009	3	М	Pole Rake	0	0	No Weeds
2010	5	M	Pole Rake	0	0	*
2011	3	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
412	N44.81539712	W89.68899771				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S	Pole Rake	1	0	
2008	3	M	Pole Rake	0	0	No Weeds
2009	3	M	Pole Rake	0	0	No Weeds Secchi 2.2'
2010	5	S	Pole Rake	0	0	No Weeds Secchi 2.1'
2011	3	S	Pole Rake	0	0	No Weeds Secchi 2.3'

	1					· · · · · · · · · · · · · · · · · · ·
Point	Latitude	Longitude				
413	N44.80797039	W89.68903762				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	•	-	-	-	-	N/A Land
2008	-	-	-	-	-	N/A Land
2009	-	-		-	-	N/A Land
2010	-	-	-	-	-	N/A Land
2011	-		-	-	-	N/A Land

Point	Latitude	Longitude				
414	N44.80729523	W89.68904125				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	M	Pole Rake	1	0	
2008	3	M,S	Pole Rake	0	0	No Weeds
2009	2	S	Pole Rake	0	0	No Weeds
2010	3	М	Pole Rake	1	0	-
2011	3	S	Pole Rake	0	0	No Weeds

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Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon EWM = Euras Crew: RAL/CTM CLP = Curly-I Datum: WGS84 NWM = North

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil N/A = Not Accessible

M = Muck W = Woody Debris

S = Sand

G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Point	Latitude	Longitude				
415	N44.80662008	W89.68904487				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S	Pole Rake	0	0	No Weeds
2008	3	S,W	Pole Rake	0	0	No Weeds
2009	4	M/S	Pole Rake	0	0	No Weeds
2010	3	M	Pole Rake	0	0	-
2011	3	M/S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
416	N44.80594492	W89.6890485				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S	Pole Rake	0	0	No Weeds
2008	3	S	Pole Rake	0	0	No Weeds
2009	3	M	Pole Rake	0	0	No Weeds
2010	4	M	Pole Rake	0	0	No Weeds
2011	3	M/S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
417	N44.80526976	W89.68905213				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	S	Pole Rake	0	0	No Weeds
2008	5	S	Pole Rake	0	0	No Weeds
2009	4	S	Pole Rake	0	0	No Weeds
2010	5	S	Pole Rake	0	0	No Weeds
2011	4	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
418	N44.8045946	W89.68905575				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S	Pole Rake	0	0	No Weeds
2008	3	S	Pole Rake	0	0	No Weeds
2009	4	S	Pole Rake	0	0	No Weeds
2010	3	w	Pole Rake	0	0	No Weeds
2011	2	s	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
419	N44.80391945	W89.68905938				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	-	-	-	-	N/A Land
2008	-	-	-	-	-	N/A Land
2009	-	-	-	•	-	N/A Land
2010	-	-	-	-	-	N/A Land
2011	-	-	-	-	-	N/A Land

Point	Latitude	Longitude				
420	N44.80324429	W89.68906301				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	S	Pole Rake	0	0	No Weeds
2008	5	S	Pole Rake	0	0	No Weeds
2009	5	S	Pole Rake	0	0	No Weeds
2010		S	Pole Rake	0	0	No Weeds
2011	4	S	Pole Rake	0	0	No Weeds

Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon EWM = Euras Crew: RAL/CTM CLP = Curly-I Datum: WGS84 NWM = North

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil N/A = Not Accessible

M = Muck

W = Woody Debris

S = Sand

G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Point	Latitude	Longitude				
421	N44.80121881	W89.68907389	-			
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	S/M	Pole Rake	0	0	No Weeds
2008	2	S	Pole Rake	0	0	No Weeds
2009	3	S/W	Pole Rake	0	0	No Weeds
2010	2	S/W	Pole Rake	0	0	No Weeds
2011	1	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
422	N44.80054366	W89.68907751	ĺ			
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	M ·	Pole Rake	0	0	-
2008	3	M,S	Pole Rake	0	0	No Weeds
2009	3	M/S	Pole Rake	0	0	No Weeds
2010	4	M	Pole Rake	0	0	-
2011	3	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
423	N44.7998685	W89.68908114				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S	Pole Rake	0	0	No Weeds
2008	3	S,W	Pole Rake	0	0	No Weeds
2009	2	S	Pole Rake	0	0	No Weeds
2010	4	S	Pole Rake	0	0	-
2011	2	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
424	N44.79919334	W89.68908477				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	S	Pole Rake	0	0	No Weeds
2008	2	S	Pole Rake	0	0	No Weeds
2009	2	S	Pole Rake	0	0	No Weeds
2010	3	M/S	Pole Rake	0	0	-
2011	-1	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
425	N44.79851818	W89.68908839				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	9	<b>_</b>	- 1	-	-	N/A No Reading
2008	9	-	-	-	-	N/A No Reading
2009	9	-		-	-	N/A No Reading
2010	-	-	- 1	-	-	N/A No Reading
2011	-	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
426	N44.79784302	W89.68909202				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	13	-	-	-	÷ .	N/A No Reading
2008	13	-	-	-	-	N/A No Reading
2009	13	-		-	-	N/A No Reading
2010	-	-	-	-	-	N/A No Reading
2011	-	-	-	-	-	N/A No Reading

Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon Crew: RAL/CTM Datum: WGS84

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil N/A = Not Accessible

- M = Muck
- W = Woody Debris
- S = Sand
- G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Rk = Rock

Point	Latitude	Longitude				
427	N44.82147094	W89.6880164				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	M	Pole Rake	0	0	No Weeds
2008	1	М	Pole Rake	0	0	No Weeds
2009	1	M/S	Pole Rake	0	0	-
2010	3	M/S	Pole Rake	0	0	No Weeds
2011	1	М	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
428	N44.81944547	W89.68802733				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	-	-	-	-	N/A Blocked By Logs
2008	-	-	-	-	-	N/A Blocked By Logs
2009	-	-	-	-	-	N/A Blocked By Logs
2010	-	-	-	-	-	N/A Blocked By Logs
2011	-	-	-	-	-	N/A Blocked By Logs

Point	Latitude	Longitude				
429	N44.81877031	W89.68803097				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M	Pole Rake	0	0	No Weeds
2008	2	M	Pole Rake	0	0	No Weeds
2009	2	M	Pole Rake	0	0	No Weeds
2010	4	W/S	Pole Rake	0	0	No Weeds
2011	2	M/S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
430	N44.81606969	W89.68804553				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	W	Pole Rake	1	0	-
2008	2	M	Pole Rake	0	0	-
2009	1	M/W	Pole Rake	0	0	-
2010	3	S	Pole Rake	0	0	-
2011	2	M	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
431	N44.81539453	W89.68804917				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	M	Pole Rake	1	0	-
2008	3	M	Pole Rake	1	0	-
2009	3	М	Pole Rake	0	0	No Weeds
2010	6	M	Pole Rake	0	0	-
2011	4	M	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
432	N44.80729265	W89.68809284				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M	Pole Rake	1	0	-
2008	2	M,S	Pole Rake	1	0	-
2009	2	М	Pole Rake	0	0	-
2010	2	S	Pole Rake	0	0	-
2011	1	M/S	Pole Rake	0	0	No Weeds

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Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon EWM = Euras Crew: RAL/CTM CLP = Curly-R Datum: WGS84 NWM = North

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

M = Muck

W = Woody Debris

S = Sand

G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.) Rk = Rock

Comments

Rk =

				Longitude	Latitude	Point
				W89.68809648	N44.80661749	433
1	CLP	EWM	Method	Sediment	Depth	Year
-	0	0	Pole Rake	М	3	2007
-	0	1	Pole Rake	M,S	3	2008
1-	0	0	Pole Rake	S	3	2009
-	0	0	Pole Rake	M	4	2010
No Weeds	0	0	Pole Rake	М	3	2011

Point	Latitude	Longitude	1			
434	N44.80594233	W89.68810012	2			
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	M	Pole Rake	0	0	No Weeds
2008	4	S,W	Pole Rake	0	0	No Weeds
2009	4	M	Pole Rake	0	0	No Weeds
2010	4	W	Pole Rake	0	0	No Weeds
2011	4	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
435	N44.80526718	W89.68810376				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S	Pole Rake	0	0	No Weeds
2008	3	S	Pole Rake	0	0	No Weeds
2009	3	S	Pole Rake	0	0	No Weeds
2010	4	S	Pole Rake	0	0	No Weeds
2011	4	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
436	N44.80459202	W89.68810739				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S	Pole Rake	0	0	No Weeds
2008	4	S	Pole Rake	0	0	No Weeds
2009	4	S	Pole Rake	0	0	No Weeds
2010	4	S	Pole Rake	0	0	No Weeds
2011	4	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
437	N44.80391686	W89.68811103				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	S	Pole Rake	0	0	No Weeds
2008	1	S	Pole Rake	0	0	No Weeds
2009	2	S	Pole Rake	0	0	No Weeds
2010	2	S	Pole Rake	0	0	No Weeds
2011	2	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
438	N44.8032417	W89.68811467				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	S	Pole Rake	0	0	No Weeds
2008	4	S	Pole Rake	0	0	No Weeds
2009	4	S	Pole Rake	0	0	No Weeds
2010	4	S	Pole Rake	0	0	No Weeds
2011	4	S	Pole Rake	0	0	No Weeds

Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon Crew: RAL/CTM Datum: WGS84 NWM = North

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil N/A = Not Accessible

M = Muck

W = Woody Debris

S = Sand

G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Point	Latitude	Longitude				
439	N44.80121623	W89.68812558				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M	Pole Rake	1	0	-
2008	2	S	Pole Rake	0	0	-
2009	1	S	Pole Rake	0	0	No Weeds
2010	2	М	Pole Rake	0	0	No Weeds
2011	. 1	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
440	N44.80054107	W89.68812922				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	М	Pole Rake	0	0	No Weeds
2008	2	S	Pole Rake	0	0	No Weeds
2009	2	M	Pole Rake	0	0	No Weeds
2010	2	S	Pole Rake	0	0	No Weeds
2011	1	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
441	N44.79986591	W89.68813286				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	S	Pole Rake	0	0	No Weeds
2008	2	S	Pole Rake	0	0	No Weeds
2009	2	S	Pole Rake	0	0	No Weeds
2010	3	M/S	Pole Rake	0	0	-
2011	1	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
442	N44.79919075	W89.68813649				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	8	-	-	-	-	N/A No Reading
2008	8	-	-	-	-	N/A No Reading
2009	8	-	-	-	-	N/A No Reading
2010		-	-	-	-	N/A No Reading
2011	8	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
443	N44.7985156	W89.68814013				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	12	-	-	-	-	N/A No Reading
2008	12	-	-	-	-	N/A No Reading
2009	12	-	-	-	-	N/A No Reading
2010	12	-	-	-	-	N/A No Reading
2011	12	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
444	N44.82079318	W89.68707142				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	М	Pole Rake	0	0	No Weeds
2008	2	M	Pole Rake	0	0	No Weeds
2009	2	M	Pole Rake	Ō	0	No Weeds
2010	3	W	Pole Rake	0	0	No Weeds
2011	3	М	Pole Rake	0	0	No Weeds

Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon Crew: RAL/CTM Datum: WGS84

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil N/A = Not Accessible

- M = Muck
- W = Woody Debris

N/A Shallow Muck

N/A Shallow Muck N/A Shallow Muck N/A Shallow Muck N/A Shallow Muck

- S = Sand
- G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Comments

Rk = Rock

Point	Latitude	Longitude			
445	N44.82011803	W89.68707507			
Year	Depth	Sediment	Method	EWM	CLP
2007	-	М	-	-	-
2008	-	М	-	-	-
2009	-	М		-	-
2010	-	-	-	-	-
2011	-	-	-	-	-

Point	Latitude	Longitude	]			
446	N44.81539194	W89.68710063				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	M	Pole Rake	0	0	No Weeds
2008	4	M	Pole Rake	1	0	-
2009	4	M	Pole Rake	0	0	No Weeds
2010	6	M	Pole Rake	0	0	No Weeds
2011	4	M	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
447	N44.81471678	W89.68710428				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	M	Pole Rake	0	0	No Weeds
2008	5	M	Pole Rake	0	0	No Weeds
2009	4	M	Pole Rake	0	0	No Weeds
2010	6	М	Pole Rake	0	0	No Weeds
2011	4	M	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
448	N44.8066149	W89.68714809	a an an an a			
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	W	Pole Rake	0	0	No Weeds
2008	4	M	Pole Rake	0	0	No Weeds
2009	4	М	Pole Rake	0	0	No Weeds
2010	4	W	Pole Rake	0	0	No Weeds
2011	4	M	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
449	N44.80593974	W89.68715174				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	M/W	Pole Rake	0	0	No Weeds
2008	4	M,S	Pole Rake	0	0	No Weeds
2009	4	M	Pole Rake	0	0	No Weeds
2010	4	M	Pole Rake	0	0	No Weeds
2011	4	M/S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
450	N44.80526458	W89.68715539				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	S	Pole Rake	0	0	No Weeds
2008	5	S	Pole Rake	1	0	-
2009	3	S/W	Pole Rake	0	0	No Weeds
2010	5	M	Pole Rake	0	0	-
2011	4	M/S	Pole Rake	0	0	No Weeds

Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon Crew: RAL/CTM Datum: WGS84 EWM = North

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

- N/A = Not Accessible M = Muck W = Woody Debris S = Sand
- G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Point	Latitude	Longitude				
451	N44.80458942	W89.68715903				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	S	Pole Rake	0	0	No Weeds
2008	4	S	Pole Rake	0	0	No Weeds
2009	5	M	Pole Rake	0	0	No Weeds
2010	5	W	Pole Rake	0	0	No Weeds
2011	4	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
452	N44.80391427	W89.68716268				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S	Pole Rake	0	0	No Weeds
2008	3	S	Pole Rake	0	0	No Weeds
2009	3	S	Pole Rake	0	0	No Weeds
2010	4	S	Pole Rake	0	0	No Weeds
2011	3	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
453	N44.80323911	W89.68716633				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	S	Pole Rake	0	0	No Weeds
2008	5	S	Pole Rake	0	0	No Weeds
2009	4	S	Pole Rake	0	0	No Weeds
2010	5	S	Pole Rake	0	0	No Weeds
2011	4	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
454	N44.80256395	W89.68716998				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	M	-	-	-	N/A Shallow Muck
2008	-	М	-	-	-	N/A Shallow Muck
2009		М	-	-	-	N/A Shallow Muck
2010	-	-	-	-	-	N/A Shallow Muck
2011	-	-	-	-	-	N/A Shallow Muck

Point	Latitude	Longitude				
455	N44.80188879	W89.68717363				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	M	Pole Rake	0	0	-
2008	1	S	Pole Rake	1	0	-
2009	-	M	-	-	-	N/A Shallow Muck
2010	4	M	Pole Rake	0	0	No Weeds
2011	-	-	-	-	-	N/A Too Shallow

Point	Latitude	Longitude				
456	N44.80053848	W89.68718093				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	S/M	Pole Rake	0	0	No Weeds
2008	2	S	Pole Rake	0	0	No Weeds
2009	2	S	Pole Rake	0	0	No Weeds
2010	2	S	Pole Rake	0	0	No Weeds
2011	2	S	Pole Rake	0	0	No Weeds

Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon Crew: RAL/CTM Datum: WGS84 EWM = North

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

M = Muck

W = Woody Debris

S = Sand

G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Point	Latitude	Longitude				
457	N44.79986332	W89.68718457				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	8	-	-	-	-	N/A No Reading
2008	8	-	-	-	-	N/A No Reading
2009	8	-	-	-	-	N/A No Reading
2010	8	-	-	-		N/A No Reading
2011	8	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
458	N44.79918816	W89.68718822				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	14	-	-	-	-	N/A No Reading
2008	14	-	-	-	-	N/A No Reading
2009	14	-	-	-	-	N/A No Reading
2010	14	-	-	-	-	N/A No Reading
2011	14	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
459	N44.82011543	W89.68612646				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	M	Pole Rake	0	0	No Weeds
2008	2	M	Pole Rake	0	0	No Weeds
2009	1	S/W	Pole Rake	0	0	No Weeds
2010	4	M/S	Pole Rake	0	0	No Weeds
2011	1	M/S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
460	N44.81944027	W89.68613012				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	M ar	Pole Rake	0	0	No Weeds
2008	1	M	Pole Rake	0	0	No Weeds
2009	1	M/W	Pole Rake	0	0	No Weeds
2010	3	M	Pole Rake	0	0	No Weeds
2011	1	M	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
461	N44.81538933	W89.6861521				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	W	Pole Rake	0	0	No Weeds
2008	4	W	Pole Rake	0	0	No Weeds
2009	4	M	Pole Rake	0	0	No Weeds
2010	6	S	Pole Rake	0	0	No Weeds
2011	4	M	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude	]			
462	N44.81471418	W89.68615576				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	M	Pole Rake	0	0	No Weeds
2008	4	M	Pole Rake	0	0	No Weeds
2009	4	М	Pole Rake	0	0	No Weeds
2010	6	М	Pole Rake	0	0	No Weeds
2011	4	M	Pole Rake	0	0	No Weeds

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

N/A = Not /	Accessible
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- M = Muck
- W = Woody Debris
- S = Sand
- G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
- Rk = Rock

Point	Latitude	Longitude				
463	N44.80593714	W89.68620335				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	S	Pole Rake	0	0	No Weeds
2008	5	S	Pole Rake	0	0	No Weeds
2009	3	M	Pole Rake	0	0	No Weeds
2010	5	М	Pole Rake	0	0	No Weeds
2011	4	М	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
464	N44.80526198	W89.68620701				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	M	Pole Rake	0	0	No Weeds
2008	5	M	Pole Rake	0	0	No Weeds
2009	5	M	Pole Rake	0	0	No Weeds
2010	5	М	Pole Rake	0	0	No Weeds
2011	5	М	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
465	N44.80458682	W89.68621067				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	6	M	Pole Rake	0	0	No Weeds
2008	6	-	-	-	-	N/A No Reading
2009	6	-	-	-	-	N/A No Reading
2010	6	-	-	-	-	N/A No Reading
2011	6	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
466	N44.80391166	W89.68621433				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	S	Pole Rake	0	0	No Weeds
2008	5	S	Pole Rake	0	0 -	No Weeds
2009	4	S	Pole Rake	0	0	No Weeds
2010	4	W	Pole Rake	0	0	No Weeds
2011	4	S/W	Pole Rake	0	0	No Weeds

	Point	Latitude	Longitude				
Γ	467	N44.80323651	W89.68621799				
ſ	Year	Depth	Sediment	Method	EWM	CLP	Comments
Ī	2007	5	S	Pole Rake	0	0	No Weeds
Γ	2008	5	S	Pole Rake	0	0	No Weeds
Γ	2009	4	S	Pole Rake	0	0	No Weeds
T	2010	4	M	Pole Rake	0	0	No Weeds
Ī	2011	4	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
468	N44.80188619	W89.68622531				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	М	Pole Rake	0	0	-
2008	1	M	Pole Rake	0	0	-
2009	1	M	Pole Rake	0	0	No Weeds
2010	2	М	Pole Rake	0	0	No Weeds
2011	-	-	-	-	-	N/A Too Shallow

Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon Crew: RAL/CTM Datum: WGS84 NWM = Norther

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

N/A =	Not A	Accessible
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M = Muck

W = Woody Debris

S = Sand

G = Gravel

No Weeds No Weeds No Weeds

No Weeds

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Comments

Point	Latitude	Longitude			
469	N44.80121103	W89.68622897			
Year	Depth	Sediment	Method	EWM	CLP
2007	3	M	Pole Rake	0	0
2008	3	S	Pole Rake	0	0
2009	2	M/S	Pole Rake	0	0
2010	3	S	Pole Rake	0	0
2011	3	S	Pole Rake	0	0

Point	Latitude	Longitude				
470	N44.80053588	W89.68623263				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	10		-	-	-	N/A No Reading
2008	10	-	-	-	-	N/A No Reading
2009	10		-	-	-	N/A No Reading
2010	10	-	-	-	-	N/A No Reading
2011	10	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
471	N44.79986072	W89.68623629				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	11		-	-	-	N/A No Reading
2008	11		-	-	-	N/A No Reading
2009	11	-	-	-	-	N/A No Reading
2010	<b>1</b> 1	-	-	*	-	N/A No Reading
2011	11		-	-	-	N/A No Reading

Point	Latitude	Longitude				
472	N44.81943766	W89.68518152				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M	Pole Rake	0	0	No Weeds
2008	2	M	Pole Rake	0	0	No Weeds
2009	2	М	Pole Rake	0	0	No Weeds
2010	4	M	Pole Rake	0	0	No Weeds
2011	2	M/W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
473	N44.8187625	W89.68518519				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	-	-	-	-	N/A Blocked By Down Tree
2008		- 1		-	-	N/A Blocked By Down Tree
2009	-	-	- 1	-	-	N/A Blocked By Down Tree
2010	-	-	· _ `	-	-	N/A Blocked By Down Tree
2011	-	-	-	-	-	N/A Blocked By Down Tree

Point	Latitude	Longitude						
474	N44.81538672	W89.68520356						
Year	Depth	Sediment	Method	EWM	CLP	T	Comments	
2007	4	W	Pole Rake	0	0	No Weeds		
2008	4	W	Pole Rake	0	0	No Weeds		
2009	4	M/W	Pole Rake	0	0	No Weeds	:	
2010	6	M/W	Pole Rake	0	0	No Weeds		
2011	4	M	Pole Rake	0	0	No Weeds		

Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon Crew: RAL/CTM Datum: WGS84 NWM = North

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil N/A = Not Accessible M = Muck

W = Woody Debris

S = Sand

G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Point	Latitude	Longitude				
475	N44.81471157	W89.68520723				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	M	Pole Rake	0	0	No Weeds
2008	4	М	Pole Rake	1	0	-
2009	4	M	Pole Rake	0	0	No Weeds
2010	6	W	Pole Rake	0	0	No Weeds
2011	4	M	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
476	N44.80593453	W89.68525497				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	М	Pole Rake	0	0	No Weeds
2008	4	W	Pole Rake	0	0	No Weeds
2009	4	М	Pole Rake	0	0	No Weeds
2010	5	M	Pole Rake	0	0	No Weeds
2011	4	М	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
477	N44.80525937	W89.68525864				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	6	M	Pole Rake	0	0	No Weeds
2008	6	-	-	-	-	N/A No Reading
2009	6	-	-	-	-	N/A No Reading
2010	6	-	-	-	-	N/A No Reading
2011	6	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
478	N44.80458421	W89.68526232				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	6	M	Pole Rake	0	0	No Weeds
2008	6	-	-	-	-	N/A No Reading
2009	6	-	-	-	-	N/A No Reading
2010	6	-	-	-	-	N/A No Reading
2011	6	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
479	N44.80390906	W89.68526599				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	7	-	-	-	-	N/A No Reading
2008	7	-	- 1	-	-	N/A No Reading
2009	7	-	-	-	-	N/A No Reading
2010		-	-	-	-	N/A No Reading
2011	7	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
480	N44.8032339	W89.68526966				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	18	-	- 1	-	-	N/A No Reading
2008	18	-	-	-	-	N/A No Reading
2009	18	-	-	-	-	N/A No Reading
2010	18	-	-	-	-	N/A No Reading
2011	18	-	-	-	-	N/A No Reading

Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon Crew: RAL/CTM Datum: WGS84 NWM = Norther

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

## N/A = Not Accessible M = Muck W = Woody Debris S = Sand C = Crevel

G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Point	Latitude	Longitude				
481	N44.80255874	W89.68527333				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	15	- ,	-		-	N/A No Reading
2008	15	-	-	_	-	N/A No Reading
2009	15	- '	-	_	-	N/A No Reading
2010	15	-	- 1		-	N/A No Reading
2011	15	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
482	N44.80188358	W89.685277				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	16	-	-	-	-	N/A No Reading
2008	16	-	- '	-	-	N/A No Reading
2009	16	-	-	-	-	N/A No Reading
2010	16	-	-	-	-	N/A No Reading
2011	16	-	· - ·	-	-	N/A No Reading

Point	Latitude	Longitude				
483	N44.80120842	W89.68528067				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	13	-	-	-	-	N/A No Reading
2008	13	-	-	-	-	N/A No Reading
2009	13	-		-	-	N/A No Reading
2010	13		-	-	-	N/A No Reading
2011	13	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
484	N44.81943504	W89.68423292				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M	Pole Rake	0	0	No Weeds
2008	2	M,W	Pole Rake	0	0	No Weeds
2009	2	M/S	Pole Rake	0	0	No Weeds
2010	4	W	Pole Rake	0	0	No Weeds
2011	2	M/S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
485	N44.81875988	W89.6842366				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	М	Pole Rake	0	0	No Weeds
2008	3	M	Pole Rake	0	0	No Weeds
2009	2	M	Pole Rake	0	0	No Weeds
2010	5	М	Pole Rake	0	0	No Weeds
2011	3	М	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
486	N44.8153841	W89.68425502				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	M	Pole Rake	0	0	No Weeds
2008	3	W	Pole Rake	0	0	-
2009	4	M	Pole Rake	0	0	No Weeds
2010	6	M	Pole Rake	0	0	No Weeds
2011	4	S/W	Pole Rake	0	0	No Weeds

## Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon Crew: RAL/CTM Datum: WGS84 NWM = Norther

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil N/A = Not Accessible

- M = Muck
- W = Woody Debris
- S = Sand
- G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Point	Latitude	Longitude				
487	N44.81470895	W89.68425871				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	M	Pole Rake	1	0	-
2008	4	M	Pole Rake	1	0	-
2009	4	M	Pole Rake	1	0	-
2010	6	M	Pole Rake	1	0	-
2011	4	M	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
488	N44.80525675	W89.68431027				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	6	S/M	Pole Rake	0	0	No Weeds
2008	6	-	-	-	-	N/A No Reading
2009	6	-	-	-	-	N/A No Reading
2010	6	-	-	-	-	N/A No Reading
2011	6	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
489	N44.8045816	W89.68431396				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	6	М	Pole Rake	0	0	No Weeds
2008	6	-	-	-	-	N/A No Reading
2009	6	-	-	-	-	N/A No Reading
2010	6	-	-	-	-	N/A No Reading
2011	6	-	-	+	-	N/A No Reading

Point	Latitude	Longitude				
490	N44.80390644	W89.68431764				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	7	-	-	-	-	N/A No Reading
2008	7	-	-	-	1	N/A No Reading
2009	7	-	-	-	-	N/A No Reading
2010	7	-	-	÷	-	N/A No Reading
2011	7		-	-	-	N/A No Reading

Point	Latitude	Longitude				
491	N44.80323128	W89.68432132				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	10	-	-	-	-	N/A No Reading
2008	10	-	-	-	-	N/A No Reading
2009	10	-	-	-	-	N/A No Reading
2010	10	-	-	-	-	N/A No Reading
2011	10	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
492	N44.80255612	W89.684325				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	8	-	-	-	-	N/A No Reading
2008	8	-	-	-	-	N/A No Reading
2009	8	-	-	-	-	N/A No Reading
2010	8	-	-	-	-	N/A No Reading
2011	8	-	-	-	-	N/A No Reading

Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon EWM = Euras Crew: RAL/CTM CLP = Curly-R Datum: WGS84 NWM = North

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

N/A = Not Accessible	N/A	. = Not	Accessibl	e
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- M = Muck
- W = Woody Debris

S = Sand

G = Gravel

No Weeds No Weeds

No Weeds No Weeds

No Weeds

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Comments

Point	Latitude	Longitude			
493	N44.81943241	W89.68328431			
Year	Depth	Sediment	Method	EWM	CLP
2007	2	М	Pole Rake	0	0
2008	3	M,W	Pole Rake	0	0
2009	2	М	Pole Rake	0	0
2010	4	М	Pole Rake	0	0
2011	3	M/W	Pole Rake	0	0

Point	Latitude	Longitude				
494	N44.81875726	W89.68328801				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M <sup>a</sup> u	Pole Rake	0	0	No Weeds
2008	3	W	Pole Rake	0	0	No Weeds
2009	3	M/W	Pole Rake	0	0	No Weeds
2010	5	M/W	Pole Rake	0	0	No Weeds
2011	3	М	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
495	N44.81538148	W89.68330649				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	M	Pole Rake	0	0	No Weeds
2008	3	W	Pole Rake	0	0	
2009	4	M	Pole Rake	0	0	-
2010	6	W	Pole Rake	0	0	]-
2011	4	M	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
496	N44.81470632	W89.68331018				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	M	Pole Rake	1	0	-
2008	3	М	Pole Rake	1	0	-
2009	3	М	Pole Rake	1	0	- Secchi Reading 1.9'
2010	5	Root	Pole Rake	1	0	- Secchi Reading 2.5'
2011	3	M/W	Pole Rake	0	0	No Weeds Secchi Reading 2.0'

Point	Latitude	Longitude				
497	N44.80457897	W89.6833656				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	6	M	Pole Rake	0	0	No Weeds
2008	6	-	-	-	-	N/A No Reading
2009	6	- 1		-	-	N/A No Reading
2010	6	•	-	-	-	N/A No Reading
2011	6	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
498	N44.80390381	W89.68336929				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	6	M	Pole Rake	0	0	No Weeds
2008	6		-	-	-	N/A No Reading
2009	6	- :	-	+	-	N/A No Reading
2010	.6	-	-	-	-	N/A No Reading
2011	6	•	-	-	-	N/A No Reading

Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon Crew: RAL/CTM Datum: WGS84 NWM = Northor

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M = Muck

W = Woody Debris

S = Sand

G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Point	Latitude	Longitude				
499	N44.80322865	W89.68337298				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	G	Pole Rake	0	0	-
2008	4	W	Pole Rake	0	0	No Weeds
2009	4	S/G	Pole Rake	0	0	No Weeds
2010	4	S/W	Pole Rake	0	0	No Weeds
2011	4	W	Pole Rake	0	0	- Lilly Pads

Point	Latitude	Longitude				
500	N44.81942978	W89.68233571				·······
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	М	Pole Rake	0	0	No Weeds
2008	3	M,W	Pole Rake	0	0	No Weeds
2009	3	М	Pole Rake	0	0	No Weeds
2010	5	М	Pole Rake	0	0	No Weeds
2011	3	M	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
501	N44.81875462	W89.68233942				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	S	Pole Rake	0	0	No Weeds
2008	2	S	Pole Rake	0	0	No Weeds
2009	2	S	Pole Rake	0	0	No Weeds
2010	4	S	Pole Rake	0	0	No Weeds
2011	3	M	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
502	N44.81537884	W89.68235795				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	M	Pole Rake	0	0	No Weeds
2008	4	M,W	Pole Rake	0	0	-
2009	4	M	Pole Rake	0	0	No Weeds
2010	6	M	Pole Rake	0	0	No Weeds
2011	4	M	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
503	N44.81470369	W89.68236166				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	М	Pole Rake	1	0	-
2008	3	M	Pole Rake	0	0	-
2009	3	М	Pole Rake	0	0	-
2010	5	M	Pole Rake	0	0	-
2011	3	R	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
504	N44.81942714	W89.68138711				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M	Pole Rake	0	0	No Weeds
2008	3	М	Pole Rake	0	0	No Weeds
2009	3	М	Pole Rake	0	0	No Weeds
2010	5	M	Pole Rake	0	0	No Weeds
2011	3	М	Pole Rake	0	0	No Weeds

Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon Crew: RAL/CTM Datum: WGS84

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- M = Muck
- W = Woody Debris
- S = Sand G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.) Rk = Rock

Point	Latitude	Longitude				
505	N44.81875198	W89.68139083				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M	Pole Rake	0	0	No Weeds
2008	3	M	Pole Rake	0	0	No Weeds
2009	-	M	-	-	-	N/A Shallow Muck
2010	5	М	Pole Rake	0	0	No Weeds
2011	-	-	-	-	-	N/A Too Shallow

Point	Latitude	Longitude				
506	N44.8153762	W89.68140942				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	M	Pole Rake	1	0	-
2008	4	M	Pole Rake	1	0	-
2009	4	M	Pole Rake	0	0	No Weeds
2010	6	M	Pole Rake	0	0	-
2011	4	М	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
507	N44.81470105	W89.68141313	,			
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	M	Pole Rake	1	0	-
2008	3	R	Pole Rake	1	0	-
2009	3	M/W	Pole Rake	0	0	-
2010	5	M/W	Pole Rake	0	0	-
2011	3	M/W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
508	N44.81942449	W89.68043851				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007		М	-	-	-	N/A Shallow Muck
2008	-	М	-	-	-	N/A Shallow Muck
2009	-	M	- 1	-	-	N/A Shallow Muck
2010	-	-	-	-	-	N/A Shallow Muck
2011	-	-	-		-	N/A Shallow Muck

Point	Latitude	Longitude				
509	N44.81537355	W89.68046088				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M	Pole Rake	1	0	-
2008	3	M	Pole Rake	1	0	_
2009	3	М	Pole Rake	0	0	-
2010	5	Root	Pole Rake	0	0	No Weeds
2011	3	M	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
510	N44.8146984	W89.68046461	1			
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M	Pole Rake	0	0	-
2008	2	M	Pole Rake	0	0	-
2009	2	M	Pole Rake	0	0	-
2010	4	W	Pole Rake	0	0	-
2011	2	M/S	Pole Rake	0	0	No Weeds

(\* F.S. )

Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon Crew: RAL/CTM Datum: WGS84 NWM = Norther

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- W = Woody Debris
- S = Sand
- G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
- Rk = Rock

Point	Latitude	Longitude				
511	N44.81604605	W89.6795086				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M	Pole Rake	0	0	No Weeds
2008	2	М	Pole Rake	0	0	-
2009	3	M/W	Pole Rake	0	0	No Weeds
2010	4	Root	Pole Rake	0	0	No Weeds
2011	3	M/W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
512	N44.81537089	W89.67951234				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M	Pole Rake	0	0	-
2008	3	М	Pole Rake	0	0	No Weeds
2009	2	M	Pole Rake	0	0	-
2010	5	M/W	Pole Rake	0	0	
2011	1	W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
513	N44.81604338	W89.67856006				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M	Pole Rake	0	0	No Weeds
2008	3	M	Pole Rake	0	0	No Weeds
2009	3	M	Pole Rake	0	0	No Weeds
2010	5	Root	Pole Rake	0	0	No Weeds
2011	3	M	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
514	N44.81536823	W89.67856381				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	M	Pole Rake	0	0	-
2008	3	M,R	Pole Rake	0	0	-
2009	1	М	Pole Rake	0	0	-
2010	5	M/W	Pole Rake	0	0	No Weeds
2011	2	M/W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
515	N44.81604071	W89.67761151				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M	Pole Rake	0	Ö	-
2008	3	М	Pole Rake	0	0	No Weeds
2009	2	M	Pole Rake	0	0	No Weeds
2010	5	M	Pole Rake	0	0	No Weeds
2011	3	M	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
516	N44.81603803	W89.67666296				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M	Pole Rake	0	0	-
2008	3	М	Pole Rake	0	0	No Weeds
2009	2	M	Pole Rake	0	0	No Weeds
2010	5	М	Pole Rake	0	0	No Weeds
2011	3	м	Pole Rake	0	0	No Weeds

Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Mosinee Flowage (518 Sample points) Date: 2007 thru 2011 WBIC: 1334900 County: Marathon Crew: RAL/CTM Datum: WGS84

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil N/A = Not Accessible M = Muck W = Woody Debris S = Sand

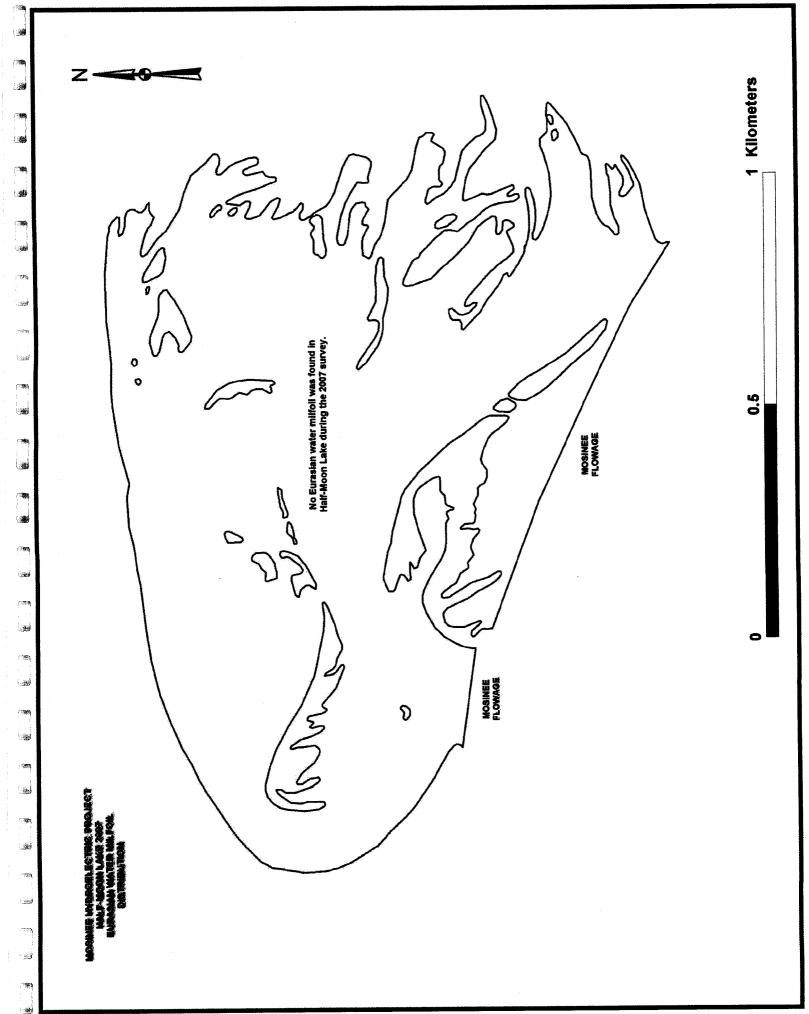
G = Gravel

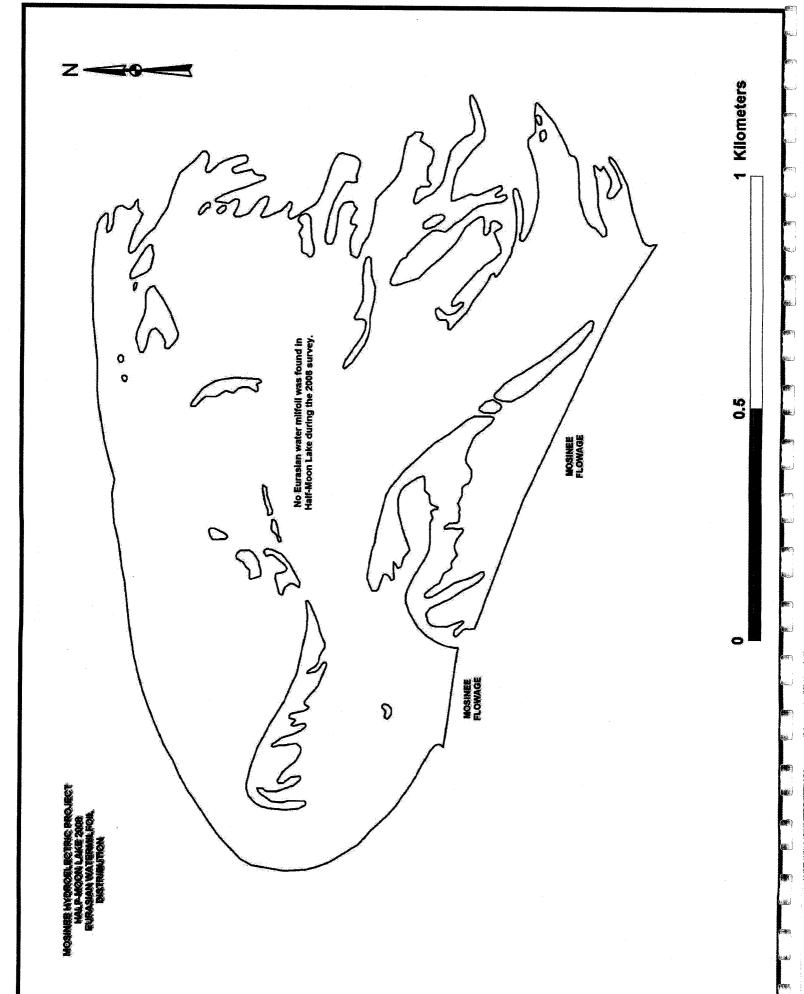
R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.) Rk = Rock

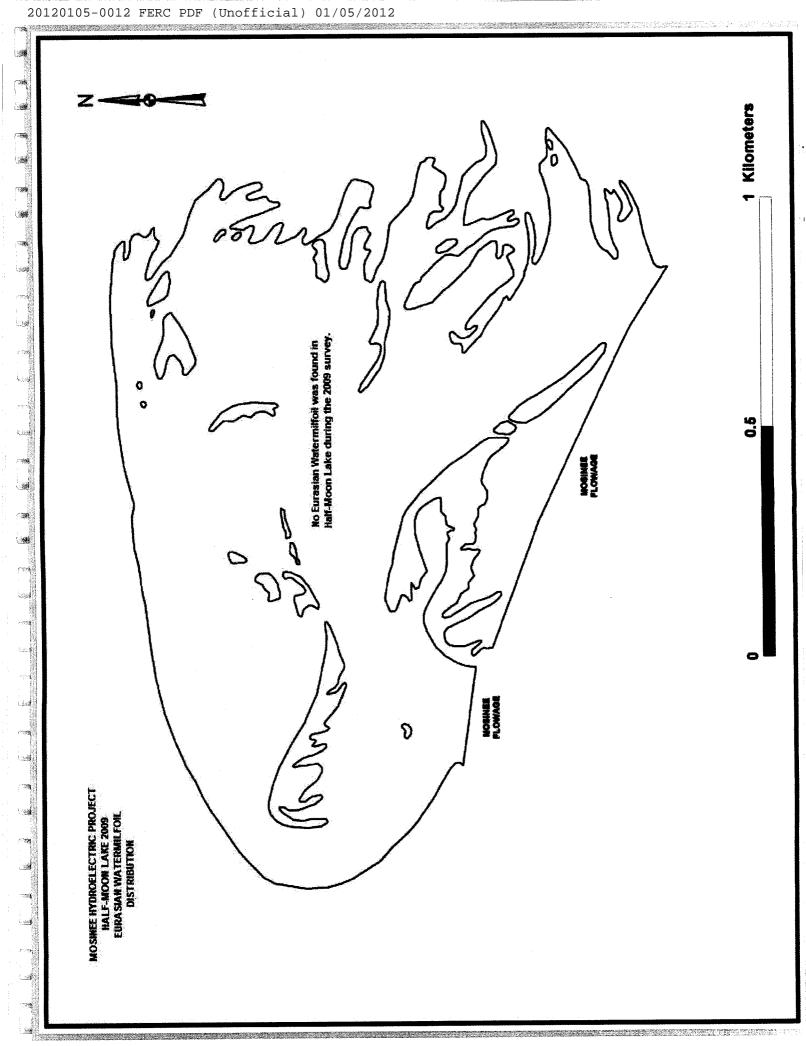
Comments

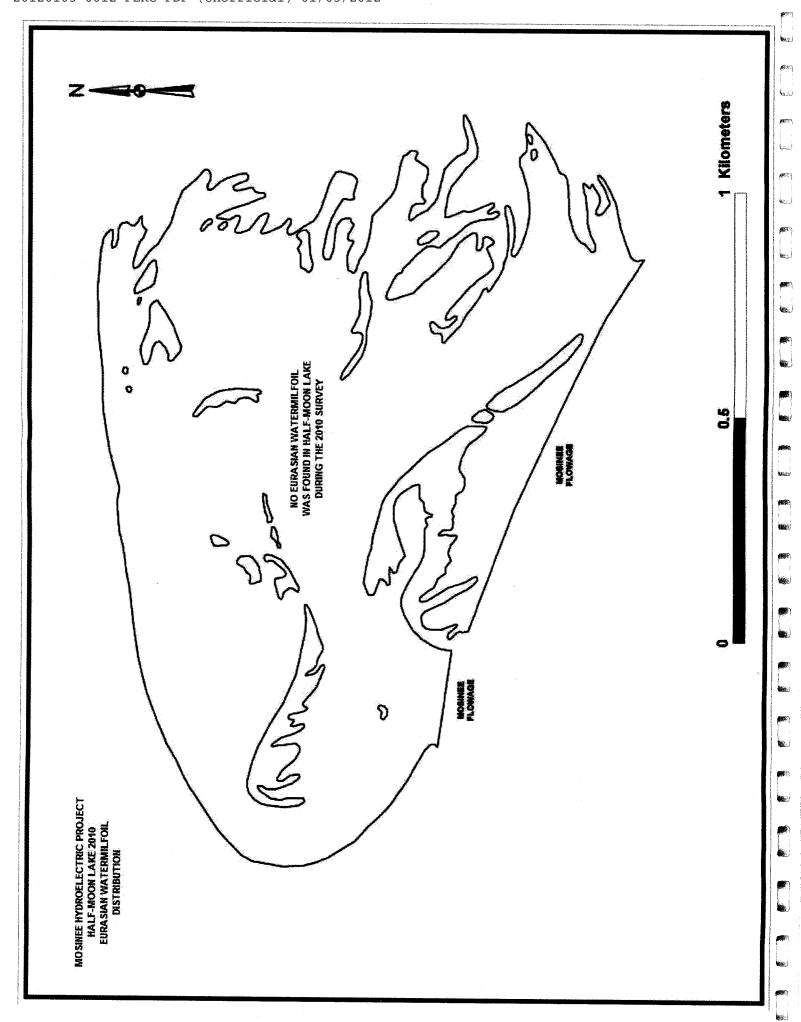
t	Latitude	Longitude				
517	N44.81603534	W89.67571442				
r	Depth	Sediment	Method	EWM	CLP	1
007	1	M	Pole Rake	0	0	No Weeds
208	3	M	Pole Rake	0	0	No Weeds
209	2	M	Pole Rake	0	0	No Weeds
010	5	M	Pole Rake	0	0	No Weeds
011	2	M	Pole Rake	0	0	No Weeds

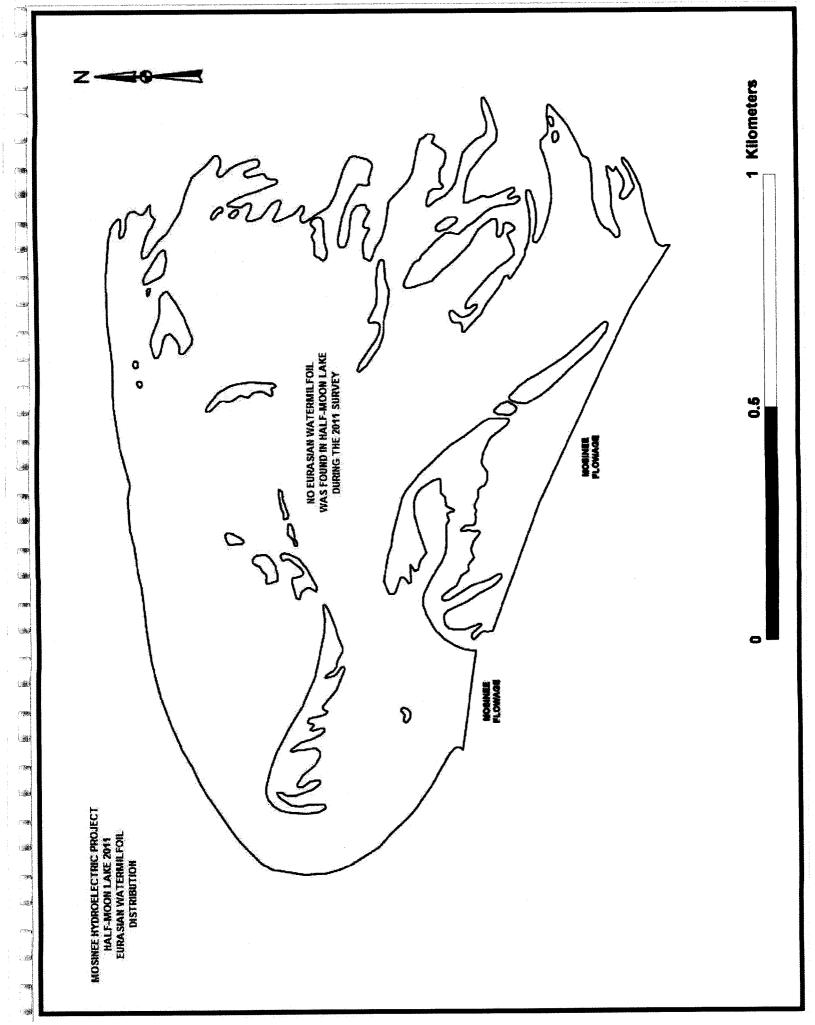
Point	Latitude	Longitude				
518	N44.8167078	W89.67476208				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	M	Pole Rake	0	0	No Weeds
2008	2	M	Pole Rake	0	0	-
2009	1	М	Pole Rake	0	0	No Weeds
2010	4	M	Pole Rake	0	0	-
2011	1	M	Pole Rake	0	0	No Weeds

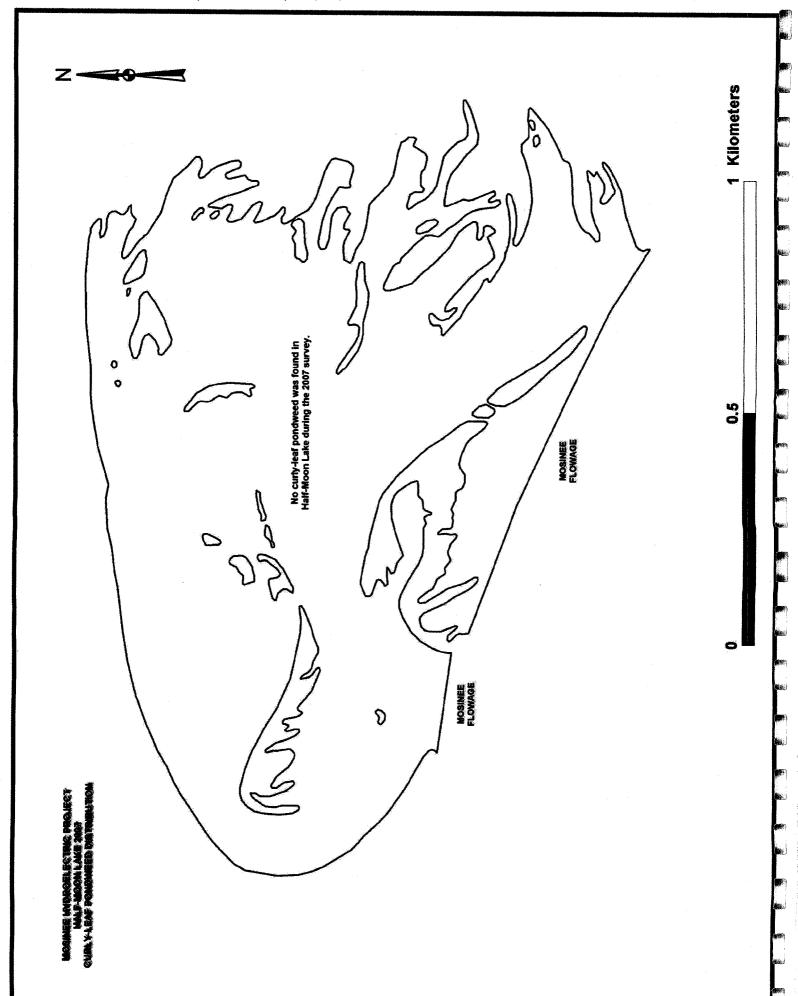


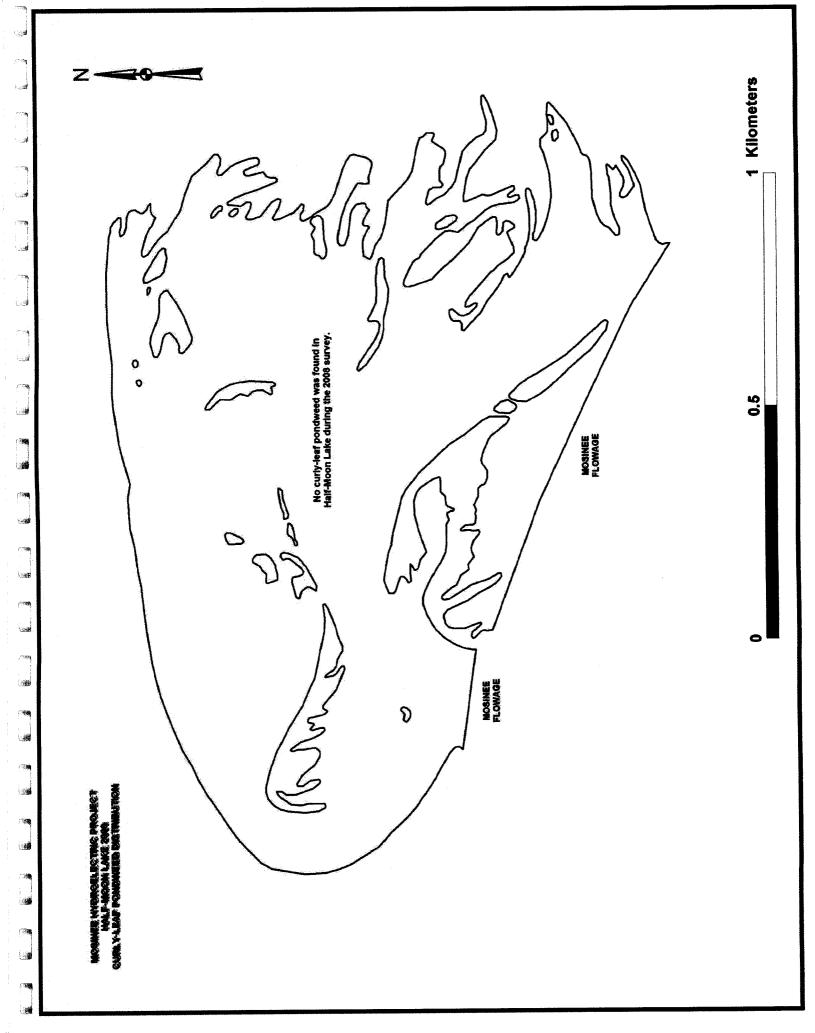


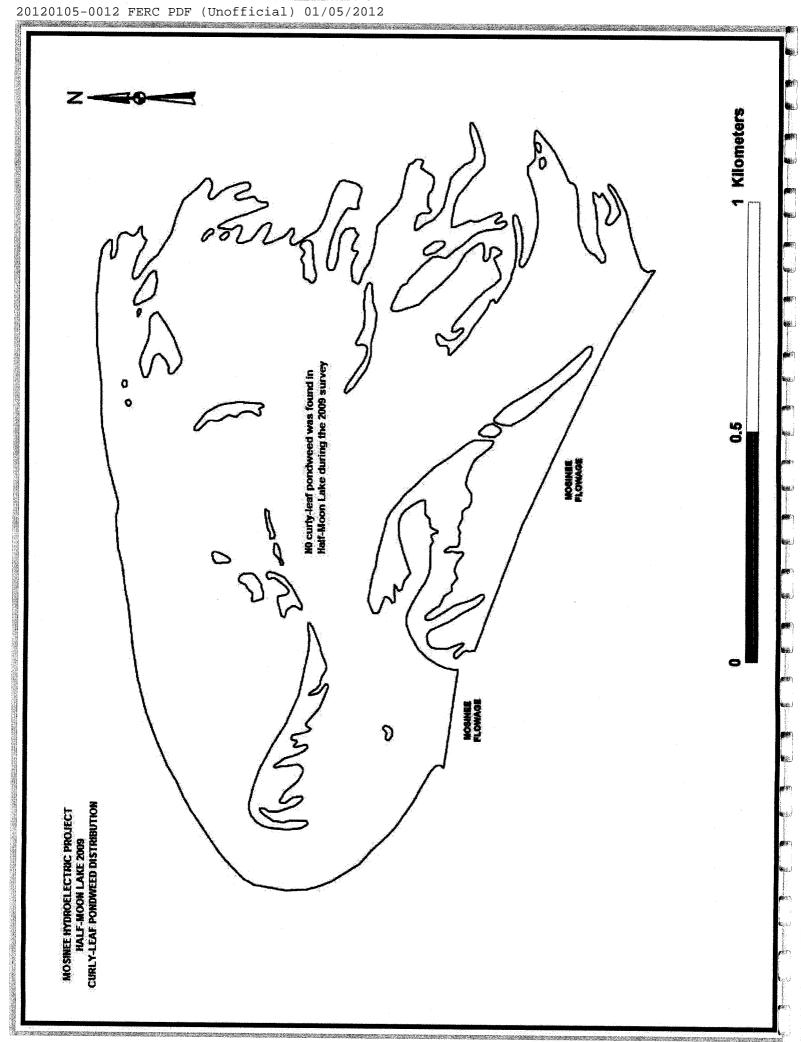


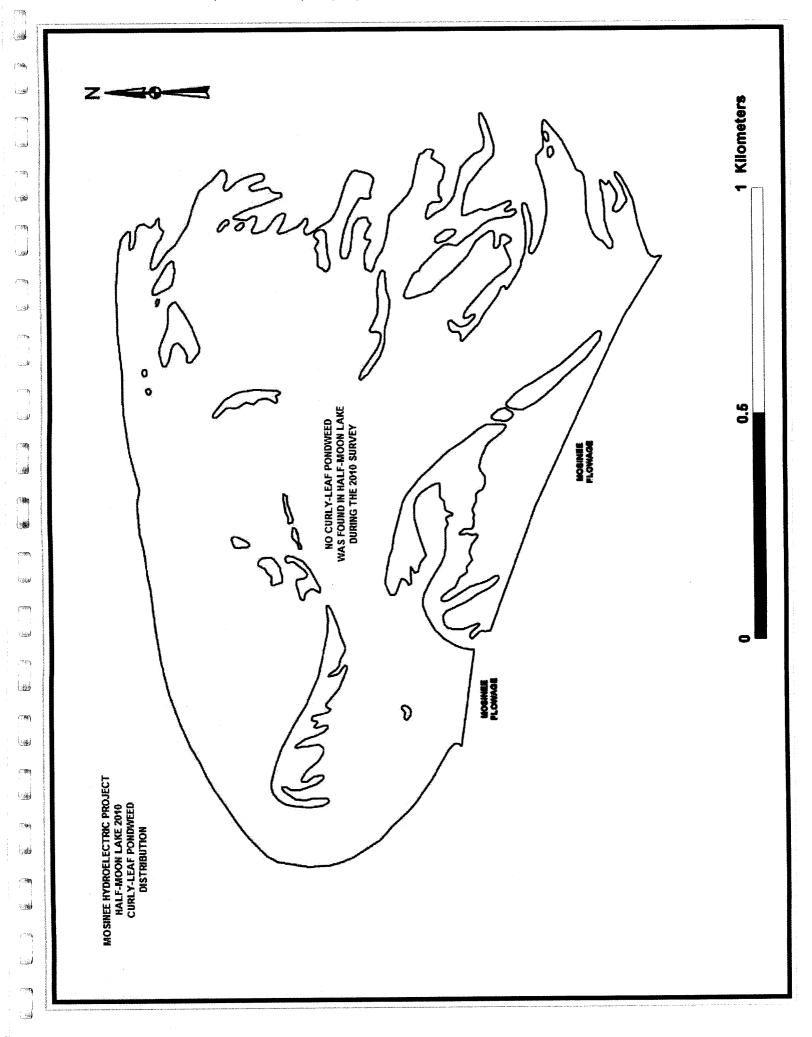


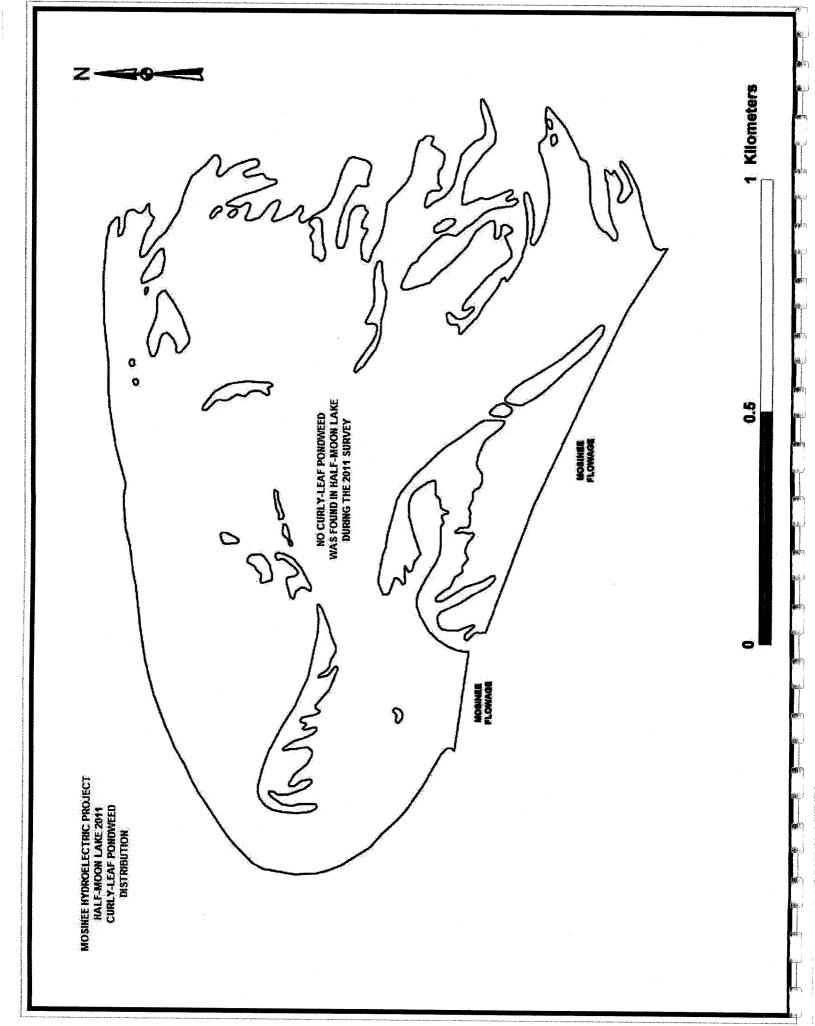


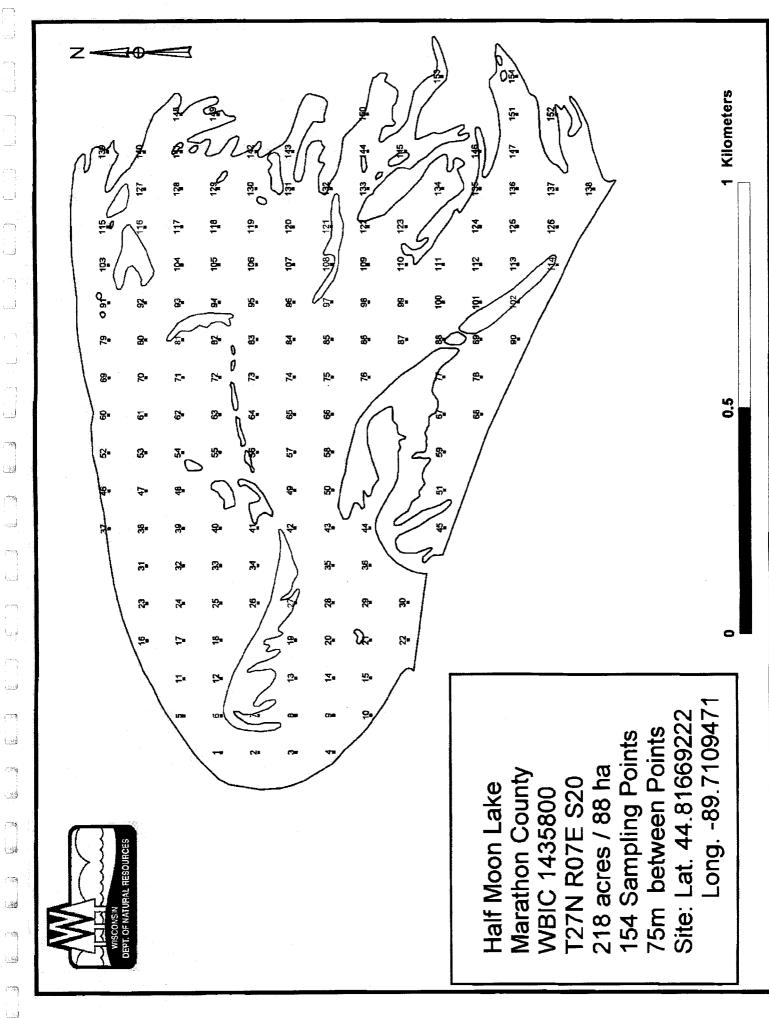












Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Half Moon Lake (154 Sample points) Date: 2007 thru 2011 WBIC: 1435800 County: Marathon Crew: RAL/CTM Datum: WGS84

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

N/A = Not Accessible
M = Muck
W = Woody Debris
<u> </u>

S = Sand G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Rk = Rock

Point	Latitude	Longitude				
1	N44.81669222	W89.7109471				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	9	М	Pole Rake	0	0	No Weeds
2008	9	-	-	-	-	N/A No Reading
2009	9	-	-	-	-	N/A No Reading
2010	9	-	-	-	•	N/A No Reading
2011	9	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
2	N44.81601706	W89.71095047				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	S	Pole Rake	0	0	No Weeds
2008	6	-	-		-	N/A No Reading
2009	6	-	-	-	-	N/A No Reading
2010	6	-	-	-	-	N/A No Reading
2011	6	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
3	N44.8153419	W89.71095385				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	8	M	Pole Rake	0	0	No Weeds
2008	8	-	-		-	N/A No Reading
2009	8	-	-	-	-	N/A No Reading
2010	8	-	-	-	-	N/A No Reading
2011	8	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
4	N44.81466675	W89.71095722				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	7	S/W	Pole Rake	0	0	No Weeds
2008	, 7	-	-	-	-	N/A No Reading
2009	7	-	-	-	-	N/A No Reading
2010		-	-	-	-	N/A No Reading
2011	7	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
5	N44.81736497	W89.70999516				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	9	M	Pole Rake	0	0	No Weeds
2008	9	-	-	-	-	N/A No Reading
2009	9	-	-	-	-	N/A No Reading
2010	9	-	-	-	-	N/A No Reading
2011	9	-	-	-	-	N/A No Reading
		• • • • • • • • • • • • • • • • • • •				

Point	Latitude	Longitude				
6	N44.81668981	W89.70999854				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	S	Pole Rake	0	0	No Weeds
2008	2	S	Pole Rake	0	0	No Weeds
2009	6	W	Pole Rake	0	0	No Weeds Secchi Reading 1.8' algea
2010	6	S	Pole Rake	0	0	No Weeds Secchi Reading 1.6'
2011	3	S	Pole Rake	0	0	No Weeds Secchi Reading 1.7'

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Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Half Moon Lake (154 Sample points) Date: 2007 thru 2011 WBIC: 1435800 County: Marathon Crew: RAL/CTM Datum: WGS84

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil N/A = Not Accessible M = Muck W = Woody Debris S = Sand G = Gravel R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.) Rk = Rock

Point	Latitude	Longitude				
7	N44.81601466	W89.71000192	_			
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	S/M	Pole Rake	0	0	No Weeds
2008	2	M,S	Pole Rake	0	0	No Weeds
2009	2	M	Pole Rake	0	0	No Weeds
2010	3	М	Pole Rake	0	0	No Weeds
2011	2	M/S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
8	N44.8153395	W89.71000531				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	6	М	Pole Rake	0	0	No Weeds
2008	6	-	-	-	-	N/A No Reading
2009	and the second se	-	-	-	-	N/A No Reading
2010		-	-	-	-	N/A No Reading
2011		-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
9	N44.81466434	W89.71000869				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	7	S	Pole Rake	0	0	No Weeds
2008	7	-	-	-	-	N/A No Reading
2009	7	-	-	-	-	N/A No Reading
2010		-	-	-	-	N/A No Reading
2011	7	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
10	N44.81398918	W89.71001207				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	6	W	Pole Rake	0	0	No Weeds
2008	6	-	-	-	-	N/A No Reading
2009		-	-	-	-	N/A No Reading
2010		-	-	-	-	N/A No Reading
2011		-	-	-	-	N/A No Reading

Point		Longitude				
11	N44.81736256	W89.70904658				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	8	M	Pole Rake	0	0	No Weeds
2008		-	-	-	-	N/A No Reading
2009		-	_	-	-	N/A No Reading
2010		-	-	-	-	N/A No Reading
2011		-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
12	N44.8166874	W89.70904998				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	7	М	Pole Rake	0	0	No Weeds
2008		-	-	-	-	N/A No Reading
2009		-	-	-	-	N/A No Reading
2010		-	-	-	-	N/A No Reading
2011	7	-	_	-	-	N/A No Reading

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Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Half Moon Lake (154 Sample points) Date: 2007 thru 2011 WBIC: 1435800 County: Marathon Crew: RAL/CTM Datum: WGS84 NWM = Norther

EWM = Eurasian Water Milfoil
CLP = Curly-leaf Pondweed
NWM = Northern Water Milfoil

N/A =	Not	Accessible
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- M = Muck
- W = Woody Debris
- S = Sand
- G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Point	Latitude	Longitude				
13	N44.81533709	W89.70905677				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	6	М	Pole Rake	0	0	No Weeds
2008		-	-	-	-	N/A No Reading
2009	-	-	-	-	-	N/A No Reading
2010		-	-	-	-	N/A No Reading
2011	6	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
14	N44.81466193	W89.70906016				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	W	Pole Rake	0	0	No Weeds
2008	4	W	Pole Rake	0	0	No Weeds
2009	4	S/W	Pole Rake	0	0	No Weeds
2010	5	M/W	Pole Rake	0	0	No Weeds
2011	4	S/W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
15	N44.81398677	W89.70906356				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	6	W	Pole Rake	0	0	No Weeds
2008	6	-	-	-	-	N/A No Reading
2009	6	-	-	-	-	N/A No Reading
2010	6	-	-	-	-	N/A No Reading
2011	6	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
16	N44.8180353	W89.70809461				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	7	М	Pole Rake	0	0	No Weeds
2008	7	-	-	-	-	N/A No Reading
2009	7	-	-	-	-	N/A No Reading
2010	7	-	-	-	-	N/A No Reading
2011	7	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
17	N44.81736014	W89.70809801				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	6	W	Pole Rake	0	0	No Weeds
2008	6	-	-	-	-	N/A No Reading
2009	_	-	-	-	-	N/A No Reading
2010	6	-	-	-	-	N/A No Reading
2011	6	-	-		-	N/A No Reading

Point	Latitude	Longitude				
18	N44.81668498	W89.70810142				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	7	M	Pole Rake	0	0	No Weeds
2008		-	-	-	-	N/A No Reading
2009		-	-	-	-	N/A No Reading
2010	7	-	-	-	-	N/A No Reading
2011	7	-	-	-	-	N/A No Reading

Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Half Moon Lake (154 Sample points) Date: 2007 thru 2011 WBIC: 1435800 County: Marathon Crew: RAL/CTM Datum: WGS84 NWM = Norther

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- G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
- Rk = Rock

Point	Latitude	Longitude				
19 Year	N44.81533467 Depth	W89.70810823 Sediment	Method	EWM	CLP	Comments
2007		W	Pole Rake	0	0	No Weeds
2008	6		-	-	-	N/A No Reading
2009	6	-	-	-	-	N/A No Reading
2010	6	-	-	-	-	N/A No Reading
2011	6	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
20	N44.81465951	W89.70811164				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S	Pole Rake	0	0	No Weeds
2008	3	S	Pole Rake	0	0	No Weeds
2009	3	S	Pole Rake	0	0	No Weeds
2010	4	S	Pole Rake	0	0	No Weeds
2011	3	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
21	N44.81398435	W89.70811504				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	6	W	Pole Rake	0	0	No Weeds
2008	6	-	-	-	-	N/A No Reading
2009	6	-	-	-	-	N/A No Reading
2010	6	-	-	-	-	N/A No Reading
2011	6	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
22	N44.81330919	W89.70811845				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	9	-	-	-	-	N/A No Reading
2008	9	-	-	-	-	N/A No Reading
2009	9	-	-	-	-	N/A No Reading
2010	9	-	-		-	N/A No Reading
2011	9	-	-		-	N/A No Reading

Point	Latitude	Longitude				
23 Year	N44.81803287	W89.70714603 Sediment	Method	EWM	CLP	Comments
					02.	No Weeds
2007	6	W	Pole Rake	0	0	
2008	6	-	-	-	-	N/A No Reading
2009	6	-	-	-	-	N/A No Reading
2010	6	-	-	-	-	N/A No Reading
2011	6	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
24	N44.81735771	W89.70714944				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	6	M	Pole Rake	0	0	No Weeds
2008	6	-	-	-	-	N/A No Reading
2009	6	-	-	-	-	N/A No Reading
2010	6	-	-	-	-	N/A No Reading
2011	6	-	-	-	-	N/A No Reading

Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Half Moon Lake (154 Sample points) Date: 2007 thru 2011 WBIC: 1435800 County: Marathon Crew: RAL/CTM Datum: WGS84

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

N/A	= Not Accessible
М =	Muck

- M = Muck
- W = Woody Debris
- S = Sand G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
- Rk = Rock

Point	Latitude	Longitude				
25	N44.81668255	W89.70715286				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	M/W	Pole Rake	0	0	No Weeds
2008	5	M	Pole Rake	0	0	No Weeds
2009	5	M/W	Pole Rake	0	0	No Weeds
2010	6	W	Pole Rake	0	0	No Weeds
2011	6	S/W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
26	N44.8160074	W89.70715628				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	M/W	Pole Rake	0	0	No Weeds
2008	4	M,W	Pole Rake	0	0	No Weeds
2009	3	W	Pole Rake	0	0	No Weeds
2010	5	S/W	Pole Rake	Ö	0	No Weeds
2011	4	S/W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
27	N44.81533224	W89.70715969				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	S	Pole Rake	0	0	No Weeds
2008	2	S	Pole Rake	0	0	No Weeds
2009	1	S	Pole Rake	0	0	No Weeds
2010	2	S	Pole Rake	0	0	No Weeds
2011	1	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
28	N44.81465708	W89.70716311				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	10	-	-	-		N/A No Reading
2008	10	-	-	-	-	N/A No Reading
2009	10	-	-	-	-	N/A No Reading
2010	10	-	-	-	-	N/A No Reading
2011	10	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
29	N44.81398192	W89.70716653				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	11	-	-	-	-	N/A No Reading
2008	11	-	-	-	-	N/A No Reading
2009	11	-	-	-	-	N/A No Reading
2010	11	-	. –	· -	-	N/A No Reading
2011	11	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
30	N44.81330676	W89.70716995				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007		М	Pole Rake	0	0	No Weeds
2008	10	-	-	-	-	N/A No Reading
2009	10	-	· _	-	-	N/A No Reading
2010	10	-	-	-	-	N/A No Reading
2011	10	-	-	-	-	N/A No Reading

Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Half Moon Lake (154 Sample points) Date: 2007 thru 2011 WBIC: 1435800 County: Marathon Crew: RAL/CTM Datum: WGS84

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

- N/A = Not Accessible
- M = Muck W = Woody Debris
- S = Sand
- G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Comments

Rk = Rock

Point	Latitude	Longitude				
31	N44.81803043	W89.70619744				
Year	Depth	Sediment	Method	EWM	CLP	
2007	6	M	Pole Rake	0	0	No Weeds
2008	6	-	-	-	-	N/A No Reading
2009	6	-	-	-	-	N/A No Reading
2010	6	-	-	-	-	N/A No Reading
2011	6	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
32	N44.81735527	W89.70620087				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	W	Pole Rake	0	0	No Weeds
2008	6	M	Pole Rake	0	0	No Weeds
2009	5	M/W	Pole Rake	0	0	No Weeds
2010	6	M/W	Pole Rake	0	0	No Weeds
2011	5	S/W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
33	N44.81668012	W89.7062043				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	M/S	Pole Rake	0	0	No Weeds
2008	4	W	Pole Rake	0	0	No Weeds
2009	4	W	Pole Rake	0	0	No Weeds
2010	5	S	Pole Rake	0	0	No Weeds
2011	4	S/W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
34	N44.81600496	W89.70620773				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S	Pole Rake	0	0	No Weeds
2008	3	S	Pole Rake	0	0	No Weeds
2009	3	S	Pole Rake	0	0	No Weeds
2010	4	M/S	Pole Rake	0	0	No Weeds
2011	3	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
35 1	44.81465464	W89.70621459				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	11	-	-	-	-	N/A No Reading
2008	11	-	-	-	-	N/A No Reading
2009	11	-	-	-		N/A No Reading
2010	11	-	-		-	N/A No Reading
2011	11	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
36	N44.81397949	W89.70621801				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S	Pole Rake	0	0	No Weeds
2008	4	S	Pole Rake	0	0	No Weeds
2009	3	S	Pole Rake	0	0	No Weeds
2010	3	S	Pole Rake	0	0	No Weeds
2011	3	S	Pole Rake	0	0	No Weeds

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Invasive Species Point Intercept S	Survey Report
Project/Lake: Mosinee/Half Moon Lak	(154 Sample points)
Date: 2007 thru 2011	
WBIC: 1435800	
County: Marathon	EWM = Eurasia
Crew: RAL/CTM	CLP = Curly-lea
Datum: WGS84	NWM = Norther

EWM = Eurasian Water Milfoil
CLP = Curly-leaf Pondweed
WM = Northern Water Milfoil

N/A = Not Accessible
M = Muck

W = Wo	ody	Debris
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S = Sand

G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.) Rk = Rock

Point	Latitude	Longitude					
37	N44.81870314	W89.70524542					
Year	Depth	Sediment	Method	EWM	CLP	Comments	1. J.
2007	6	M	Pole Rake	0	0	No Weeds	
2008	6	-	-	-	-	N/A No Reading	· · · · ·
2009	6	-	- · ·	-	*	N/A No Reading	
2010	6	-	-	-	-	N/A No Reading	
2011	6	-	-	-	-	N/A No Reading	

Point	Latitude	Longitude				
38	N44.81802799	W89.70524886				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	6	W/M	Pole Rake	0	0	No Weeds
2008	6	-	-	-	-	N/A No Reading
2009	6	-	- :	-	-	N/A No Reading
2010	6	-	-	-	-	N/A No Reading
2011	6	-		-	-	N/A No Reading

Point	Latitude	Longitude						
39	N44.81735283	W89.7052523						
Year	Depth	Sediment	Method	EWM	CLP		Comments	
2007	5	S	Pole Rake	0	0	No Weeds		
2008	5	M	Pole Rake	0	0	No Weeds	1. · · · · · · · · · · · · · · · · · · ·	
2009	4	М	Pole Rake	0	0	No Weeds		1.
2010	5	S/W	Pole Rake	0	0	No Weeds		<u> </u>
2011	5	M/S	Pole Rake	0	0	No Weeds	·	

Point	Latitude	Longitude						
40	N44.81667767	W89.70525574						
Year	Depth	Sediment	Method	EWM	CLP		Comments	
2007	4	M/S	Pole Rake	0	0	No Weeds		
2008	4	M,W	Pole Rake	0	0	No Weeds		
2009	1	S	Pole Rake	0	0	No Weeds		
2010	5	S	Pole Rake	0	0	No Weeds		
2011	4	M/S	Pole Rake	0	0	No Weeds		

Point	Latitude	Longitude						
41	N44.81600251	W89.70525918						
Year	Depth	Sediment	Method	EWM	CLP		Comments	· ·,
2007	1	S	Pole Rake	0	0	No Weeds		
2008	2	S	Pole Rake	0	0	No Weeds		
2009	1	S	Pole Rake	0	0	No Weeds		
2010	2	S	Pole Rake	0	0	No Weeds		
2011	2	S	Pole Rake	0	0	No Weeds		

Point	Latitude	Longitude						
42	N44.81532736	W89.70526262						
Year	Depth	Sediment	Method	EWM	CLP		Comments	
2007	10	-	-	-	-	N/A No Reading		2
2008	10	-	-	-	-	N/A No Reading		
2009	10	-	-		-	N/A No Reading		
2010	10	-	-	-	-	N/A No Reading		
2011	10	-	-	-	-	N/A No Reading		

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Invasive Species Point Intercept Su	rvey Report					
Project/Lake: Mosinee/Half Moon Lake (154 Sample points)						
Date: 2007 thru 2011						
WBIC: 1435800						
County: Marathon	EWM = Eurasia					
Crew: RAL/CTM	CLP = Curly-lea					
Datum: WGS84	NWM = Northern					

EWM = Eurasian Water Milfoil
CLP = Curly-leaf Pondweed
NWM = Northern Water Milfoil

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Point	Latitude	Longitude				
43	N44.8146522	W89.70526606				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	S	Pole Rake	0	0	No Weeds
2008	5	S	Pole Rake	0	0	No Weeds
2009	8	S	Pole Rake	0	0	No Weeds
2010	7	W	Pole Rake	0	0	No Weeds
2011	5	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
44	N44.81397704	W89.7052695				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	S	Pole Rake	0	0	No Weeds
2008	4	M,S	Pole Rake	0	0	No Weeds
2009	2	S	Pole Rake	0	0	No Weeds
2010	2	S	Pole Rake	0	0	No Weeds
2011	3	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
45	N44.81262673	W89.70527638				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	M	Pole Rake	Ö	0	No Weeds
2008	3	M	Pole Rake	0	0	No Weeds
2009	3	M	Pole Rake	0	0	No Weeds
2010	3	M/W	Pole Rake	0	0	No Weeds
2011	2	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
.46	N44.81870069	W89.70429683				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	S	Pole Rake	0	0	No Weeds
2008	4	S	Pole Rake	0	0	No Weeds
2009	4	S	Pole Rake	0	0	No Weeds
2010	5	M/S	Pole Rake	0	0	No Weeds
2011	4	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
47	N44.81802553	W89,70430028				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	М	Pole Rake	0	0	No Weeds
2008	5	М	Pole Rake	0	0	No Weeds
2009	5	М	Pole Rake	0	0	No Weeds
2010	6	М	Pole Rake	0	0	No Weeds
2011	5	M/S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
48	N44.81735038	W89.70430373				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	7 3	S	Pole Rake	0	0	No Weeds
2008	3 3	S	Pole Rake	0	0	No Weeds
2009	3	S	Pole Rake	0	0	No Weeds
2010	) 3	S	Pole Rake	0	0	No Weeds
2011	1 2	S	Pole Rake	0	0	No Weeds

/ = Eurasian Water Milfoil	
= Curly-leaf Pondweed	
A = Northern Water Milfoil	

N/A = Not Accessible	
M = Muck	
W = Woody Debris	
S = Sand	
G = Gravel	

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Rk = Rock

Point	Latitude	Longitude					
49	N44.81532491	W89.70431408					
Year	Depth	Sediment	Method	EWM	CLP	Comments	
2007	11	-	-	-	-	N/A No Reading	-
2008	11	-	-	•	-	N/A No Reading	· · · · · · · · · · · · · · · · · · ·
2009	11	-	-	-	-	N/A No Reading	
2010	11	-	-	-	-	N/A No Reading	1
2011	11	-	-	-	-	N/A No Reading	

Point	Latitude	Longitude				
50	N44.81464975	W89.70431753				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	S	Pole Rake	0	0	No Weeds
2008	3	S,W	Pole Rake	0	0	No Weeds
2009	3	S	Pole Rake	0	0	No Weeds
2010	2	S	Pole Rake	0	0	No Weeds
2011	3	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude					
51	N44.81262428	W89.70432788					
Year	Depth	Sediment	Method	EWM	CLP		Comments
2007	4	M	Pole Rake	0	0	No Weeds	
2008	4	W	Pole Rake	0	0	No Weeds	
2009	4	M	Pole Rake	0	0	No Weeds	
2010	4	M/W	Pole Rake	0	0	No Weeds	
2011	4	M/S	Pole Rake	0	0	No Weeds	

Point	Latitude	Longitude						
52	N44.81869823	W89.70334824						
Year	Depth	Sediment	Method	EWM	CLP		Comments	
2007	4	S	Pole Rake	0	0	No Weeds		
2008	4	S	Pole Rake	0	0	No Weeds		
2009	4	M	Pole Rake	0	0	No Weeds	· · · · · · · · · · · · · · · · · · ·	
2010	5	M	Pole Rake	0	0	No Weeds	· · · ·	
2011	4	S/W	Pole Rake	0	0	No Weeds	-	

Point	Latitude	Longitude						
53	N44.81802307	W89.7033517						
Year	Depth	Sediment	Method	EWM	CLP	T	Comments	
2007	1	S	Pole Rake	0	0	No Weeds		
2008	1	S	Pole Rake	0	0	No Weeds		
2009	1	S	Pole Rake	0	0	No Weeds	·	
2010	2	S	Pole Rake	0	0	No Weeds		
2011	2	S/W	Pole Rake	0	0	No Weeds		

Point	Latitude	Longitude						
54	N44.81734792	W89.70335516						
Year	Depth	Sediment	Method	EWM	CLP		Comments	
2007	5	M	Pole Rake	0	0	No Weeds		
2008	5	M .	Pole Rake	0	0	No Weeds		
2009	4	M	Pole Rake	0	0	No Weeds		
2010	5	M/S	Pole Rake	0	0	No Weeds		
2011	4	М	Pole Rake	0	0	No Weeds		

Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Half Moon Lake (154 Sample points) Date: 2007 thru 2011 WBIC: 1435800 County: Marathon Crew: RAL/CTM Datum: WGS84

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil N/A = Not Accessible M = Muck W = Woody Debris S = Sand G = Gravel R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.) Rk = Rock

Point	Latitude	Longitude				
55	N44.81667276	W89.70335862				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	М	Pole Rake	0	0	No Weeds
2008	4	М	Pole Rake	0	0	No Weeds
2009	3	М	Pole Rake	Ó	0	No Weeds
2010	4	М	Pole Rake	0	Ó	No Weeds
2011	3	М	Pole Rake	0	0	No Weeds

Point		Longitude				
56	N44.8159976	W89.70336208				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	S	Pole Rake	0	0	No Weeds
2008	4	S	Pole Rake	0	0	No Weeds
2009	4	M/S	Pole Rake	0	0	No Weeds
2010	5	W	Pole Rake	0	0	No Weeds
2011	5	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
57	N44.81532245	W89.70336555				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	10	-	-	-	-	N/A No Reading
2008	10	-	-	-	-	N/A No Reading
2009	10	-	-	-	-	N/A No Reading
2010	10	-	-	-	-	N/A No Reading
2011	10	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
58	N44.81464729	W89.70336901				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	7	S	Pole Rake	0	0	No Weeds
2008	7	-	-	-	-	N/A No Reading
2009	7	-	-	-	-	N/A No Reading
2010	7	-	-	-	-	N/A No Reading
2011	7	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
59	N44.81262182	W89.70337939				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	M	Pole Rake	0	0	No Weeds
2008	3	S	Pole Rake	0	0	No Weeds
2009	3	S	Pole Rake	0	0	No Weeds
2010	5	М	Pole Rake	0	0	No Weeds
2011	5	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
60	N44.81869576	W89.70239965				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	S	Pole Rake	0	0	No Weeds
2008	4	М	Pole Rake	0	0	No Weeds
2009	4	M	Pole Rake	0	0	No Weeds
2010	5	M	Pole Rake	0	0	No Weeds
2011	4	S	Pole Rake	0	0	No Weeds

Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Half Moon Lake (154 Sample points) Date: 2007 thru 2011 WBIC: 1435800 County: Marathon EWM = Eurasia Crew: RAL/CTM CLP = Curly-le Datum: WGS84 NWM = Northe

EWM = Eurasian Water Milfoil
CLP = Curly-leaf Pondweed
NWM = Northern Water Milfoil

N/A = Not Accessible
M = Muck
W = Woody Debris
S = Sand
G = Gravel
R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
Rk = Rock

Point	Latitude	Longitude				
61	N44.81802061	W89.70240312				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	М	Pole Rake	0	0	No Weeds
2008	5	М	Pole Rake	0	0	No Weeds
2009	4	M/S	Pole Rake	0	0	No Weeds
2010	6	М	Pole Rake	0	0	No Weeds
2011	5	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
62	N44.81734545	W89.70240659				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S/W	Pole Rake	0	0	No Weeds
2008	3	S,W	Pole Rake	0	0	No Weeds
2009	3	W	Pole Rake	0	0	No Weeds
2010	3	S	Pole Rake	0	0	No Weeds
2011	3	S/W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
63	N44.81667029	W89.70241006				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S/M	Pole Rake	0	0	No Weeds
2008	3	W	Pole Rake	0	0	No Weeds
2009	3	M/W	Pole Rake	0	0	No Weeds
2010	4	S/W	Pole Rake	0	0	No Weeds
2011	3	M/W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude					
64	N44.81599514	W89.70241354					
Year	Depth	Sediment	Method	EWM	CLP	Comments	
2007	5	W	Pole Rake	0	0	No Weeds	
2008	5	М	Pole Rake	0	0	No Weeds	
2009	5	M	Pole Rake	0	0	No Weeds	
2010	6	M ···	Pole Rake	0	0	No Weeds	
2011	5	S	Pole Rake	0	0	No Weeds	

Point	Latitude	Longitude				
65	N44.81531998	W89.70241701				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	9	М	Pole Rake	0	0	No Weeds
2008	9	-	-	-	-	N/A No Reading
2009	9	-	· -	-	-	N/A No Reading
2010	9	-	-	-	-	N/A No Reading
2011	9	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
66	N44.81464482	W89.70242048				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	9	-	-	-	-	N/A No Reading
2008	9	-	-	-	-	N/A No Reading
2009	9	-	· -	-	-	N/A No Reading
2010	9	-		-	-	N/A No Reading
2011	9	-	-	-	-	N/A No Reading

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Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Half Moon Lake (154 Sample points) Date: 2007 thru 2011 WBIC: 1435800 County: Marathon Crew: RAL/CTM Datum: WGS84 County: WGS84

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

- N/A = Not Accessible M = Muck
- W = Woody Debris
- S = Sand
- G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.) Rk = Rock
- Point Latitude Longitude W89.7024309 67 N44.81261935 Comments Method EWM CLP Year Sediment Depth No Weeds 2007 М Pole Rake 0 0 4 S,W Pole Rake 2008 4 0 0 No Weeds 2009 4 Ŵ Pole Rake 0 0 No Weeds 2010 4 M/W Pole Rake 0 0 No Weeds 2011 4 S Pole Rake 0 0 No Weeds

Point	Latitude	Longitude				
68	N44.81194419	W89.70243437				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	6	W/S	Pole Rake	0	0	No Weeds
2008	6	-	-	-	-	N/A No Reading
2009	6	-	-	-	-	N/A No Reading
2010	6	-	-	-	-	N/A No Reading
2011	6	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
69	N44.81869329	W89.70145105				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	M	Pole Rake	0	0	No Weeds
2008	4	М	Pole Rake	0	0	No Weeds
2009	4	M/W	Pole Rake	0	0	No Weeds
2010	4	W	Pole Rake	0	0	No Weeds
2011	4	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
70	N44.81801813	W89.70145454				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	S/W	Pole Rake	0	0	No Weeds
2008	2	S	Pole Rake	0	0	No Weeds
2009	2	S	Pole Rake	0	0	No Weeds
2010	4	W	Pole Rake	0	0	No Weeds
2011	2	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
71	N44.81734297	W89.70145802				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	M	Pole Rake	0	0	No Weeds
2008	3	М	Pole Rake	0	0	No Weeds
2009	3	W	Pole Rake	0	0	No Weeds
2010	4	S/W	Pole Rake	0	0	No Weeds
2011	3	M/S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
72	N44.81666782	W89.7014615				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S/W	Pole Rake	0	0	No Weeds
2008	3	S	Pole Rake	0	0	No Weeds
2009	the second se	S	Pole Rake	0	0	No Weeds
2010	3	S	Pole Rake	0	0	No Weeds
2011	3	S	Pole Rake	0	0	No Weeds

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Invasive Species Point Intercept	t Survey Report
Project/Lake: Mosinee/Half Moon L	ake (154 Sample points)
Date: 2007 thru 2011	
WBIC: 1435800	
County: Marathon	EWM = Eurasia
Crew: RAL/CTM	CLP = Curly-lea
Datum: WGS84	NWM = Norther

EWM = Eurasian Water Milfoil
CLP = Curly-leaf Pondweed
NWM = Northern Water Milfoil

N/A = Not Accessible M = Muck
W = Woody Debris
S = Sand
G = Gravel
R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
Rk = Rock

Point	Latitude	Longitude					
73	N44.81599266	W89.70146499					
Year	Depth	Sediment	Method	EWM	CLP	Comments	
2007	4	W	Pole Rake	0	0	No Weeds	
2008	5	M,W	Pole Rake	0	Ö	No Weeds	
2009	3	S/W	Pole Rake	0	0	No Weeds	
2010	5	W	Pole Rake	0	0	No Weeds	
2011	4	W	Pole Rake	0	0	No Weeds	

Point	Latitude	Longitude				
74	N44.8153175	W89.70146847				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	W	Pole Rake	0	0	No Weeds
2008	4	M,S	Pole Rake	0	0	No Weeds
2009	4	W	Pole Rake	0	0	No Weeds
2010	6	М	Pole Rake	0	0	No Weeds
2011	4	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
75	N44.81464235	W89.70147195				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	9	М	Pole Rake	0	0	No Weeds
2008	9	-	-	-	-	N/A No Reading
2009		-	-	-	-	N/A No Reading
2010		-	-	-	-	N/A No Reading
2011	9	-	-	-	-	N/A No Reading

Point	Latitude	Longitude	, 			
76	N44.81396719	W89.70147544				
Year	Depth	Sediment	Method	EWM	ÇLP	Comments
2007	-	М	Pole Rake	0	0	No Weeds
2008	9	-	-	-	-	N/A No Reading
2009	9	-	-	-	-	N/A No Reading
2010	9	-	-	-	-	N/A No Reading
2011	9	-	-		-	N/A No Reading

Point	Latitude	Longitude	1				
77	N44.81261687	W89.7014824					
Year	Depth	Sediment	Method	EWM	CLP	Comments	
2007	4	M	Pole Rake	0	0	No Weeds	
2008	4	M,W	Pole Rake	0	0	No Weeds	
2009	4	W	Pole Rake	0	0	No Weeds	
2010	4	W	Pole Rake	0	0	No Weeds	
2011	4	S	Pole Rake	0	0	No Weeds	

Point	Latitude	Longitude					
78	N44.81194172	W89.70148589					
Year	Depth	Sediment	Method	EWM	CLP	Comments	
2007	4	S	Pole Rake	0	0	No Weeds	
2008	3	S	Pole Rake	0	0	No Weeds	
2009	3	W	Pole Rake	0	0	No Weeds	
2010	4	W	Pole Rake	0	0	No Weeds	
2011	2	S	Pole Rake	0	0	No Weeds	

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Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Half Moon Lake (154 Sample points) Date: 2007 thru 2011 WBIC: 1435800 County: Marathon Crew: RAL/CTM Datum: WGS84 NWM = Norther

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

- N/A = Not Accessible M = Muck W = Woody Debris S = Sand G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

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Rk = Rock

Point	Latitude	Longitude				
79	N44.8186908	W89.70050246				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S/W	Pole Rake	0	0	No Weeds
2008	3	S,W	Pole Rake	0	0	No Weeds
2009	3	M/S	Pole Rake	0	0	No Weeds
2010	4	M/S	Pole Rake	0	0	No Weeds
2011	3	W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
80	N44.81801565	W89.70050596				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	R	Pole Rake	0	0	No Weeds
2008	3	W	Pole Rake	0	0	No Weeds
2009	3	S/W	Pole Rake	0	0	No Weeds
2010	4	S	Pole Rake	0	0	No Weeds
2011	3	W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
81	N44.81734049	W89.70050945				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	M	Pole Rake	0	0	No Weeds
2008	2	M,W	Pole Rake	0	0	No Weeds
2009	2	M/S	Pole Rake	0	0	No Weeds
2010	2	M/S	Pole Rake	0	0	No Weeds
2011	2	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
82	N44.81666533	W89.70051295				· · · · · · · · · · · · · · · · · · ·
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	S	Pole Rake	0	0	No Weeds
2008	2	S	Pole Rake	0	0	No Weeds
2009	2	S	Pole Rake	0	0	No Weeds
2010	2	S	Pole Rake	0	0	No Weeds
2011	2	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
83	N44.81599018	W89.70051644				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	W	Pole Rake	0	0	No Weeds
2008	5	М	Pole Rake	0	0	No Weeds
2009	4	W	Pole Rake	0	0	No Weeds
2010	5	W	Pole Rake	0	0	No Weeds
2011	4	W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
84	N44.81531502	W89.70051993				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	W	Pole Rake	0	0	No Weeds
2008	4	W	Pole Rake	0	0	No Weeds
2009	4	M/S	Pole Rake	0	0	No Weeds
2010	5	W	Pole Rake	0	0	No Weeds
2011	4	S	Pole Rake	0	0	No Weeds

Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Half Moon Lake (154 Sample points) Date: 2007 thru 2011 WBIC: 1435800 County: Marathon Crew: RAL/CTM Datum: WGS84 EWM = Eurasia CLP = Curly-le NWM = Northe

EWM = Eurasian Water Milfoil
CLP = Curly-leaf Pondweed
NWM = Northern Water Milfoil

- N/A = Not Accessible M = Muck W = Woody Debris S = Sand G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
- Rk = Rock

Point	Latitude	Longitude					
85	N44.81463986	W89.70052343					
Year	Depth	Sediment	Method	EWM	CLP		Comments
2007	5	W	Pole Rake	0	0	No Weeds	
2008	5	S	Pole Rake	0	0	No Weeds	· · · · · · · · · · · · · · · · · · ·
2009	5	S	Pole Rake	0	0	No Weeds	
2010	6	W	Pole Rake	0	0	No Weeds	
2011	5	S	Pole Rake	0	0	No Weeds	

Point	Latitude	Longitude				
86	N44.8139647	W89.70052692				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	8	М	Pole Rake	0	0	No Weeds
2008	8	-	-	-	-	N/A No Reading
2009	8	-	-	-	-	N/A No Reading
2010	8	-	•	-	-	N/A No Reading
2011	8	-	-	-	· _	N/A No Reading

Point	Latitude	Longitude				
87	N44.81328955	W89.70053042				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	8	М	Pole Rake	0	0	No Weeds
2008	8	-	- <b>-</b>	-	-	N/A No Reading
2009		-	-	-	-	N/A No Reading
2010	8	-	-	-	-	N/A No Reading
2011	8	-		-	-	N/A No Reading

Point	Latitude	Longitude					
88	N44.81261439	W89.70053391					
Year	Depth	Sediment	Method	EWM	CLP		Comments
2007	4	S	Pole Rake	0	0	No Weeds	
2008		S	Pole Rake	0	0	No Weeds	
2009		W	Pole Rake	0	0	No Weeds	
2010	2	S	Pole Rake	0	0	No Weeds	
2011	4	S/W	Pole Rake	0	0	No Weeds	

Point	Latitude	Longitude					
89	N44.81193923	W89.70053741					
Year	Depth	Sediment	Method	EWM	CLP	T	Comments
2007	3	S	Pole Rake	0	0	No Weeds	
2008	4	M,S	Pole Rake	0	0	No Weeds	
2009	4	S/W	Pole Rake	0	0	No Weeds	
2010	3	S	Pole Rake	0	0	No Weeds	
2011	4	S	Pole Rake	0	0	No Weeds	

Point	Latitude	Longitude				
		W89.7005409				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	7	М	Pole Rake	0	0	No Weeds
2008		-	-	-	-	N/A No Reading
2009	7	-	-	-	~	N/A No Reading
2010	7	-	-	-	-	N/A No Reading
2011	7	-	-	-	-	N/A No Reading

Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Half Moon Lake (154 Sample points) Date: 2007 thru 2011 WBIC: 1435800 County: Marathon Crew: RAL/CTM Datum: WGS84

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil N/A = Not Accessible M = Muck W = Woody Debris S = Sand G = Gravel R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.) Rk = Rock

Point	Latitude	Longitude				
91	N44.81868831	W89.69955387				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M/W	Pole Rake	0	0	No Weeds
2008	3	М	Pole Rake	0	0	No Weeds
2009	2	M/W	Pole Rake	0	0	No Weeds
2010	3	M/W	Pole Rake	0	0	No Weeds
2011	3	W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
92	N44.81801316	W89.69955738				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	M	Pole Rake	0	0	No Weeds
2008	4	М	Pole Rake	0	0	No Weeds
2009	4	M	Pole Rake	0	0	No Weeds
2010	5	M	Pole Rake	0	0	No Weeds
2011	4	M	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
93	N44.817338	W89.69956088				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	M	Pole Rake	0	0	No Weeds
2008	4	M	Pole Rake	0	0	No Weeds
2009	4	M	Pole Rake	0	0	No Weeds
2010	5	М	Pole Rake	0	0	No Weeds
2011	4	M	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
94	N44.81666284	W89.69956439				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	W/M	Pole Rake	0	0	No Weeds
2008	3	W	Pole Rake	0	0	No Weeds
2009	4	M/W	Pole Rake	0	0	No Weeds Secchi Reading 1.0' algea
2010	4	S/W	Pole Rake	0	0	No Weeds Secchi Reading 1.5'
2011	4	М	Pole Rake	0	0	No Weeds Secchi Reading 1.2'

Point	Latitude	Longitude				
95	N44.81598769	W89.69956789				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	W	Pole Rake	0	0	No Weeds
2008	4	М	Pole Rake	0	0	No Weeds
2009	4	М	Pole Rake	0	0	No Weeds
2010	5	M	Pole Rake	0	0	No Weeds
2011	4	W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
96	N44.81531253	W89.6995714				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	W	Pole Rake	0	0	No Weeds
2008	3	M,W	Pole Rake	0	0	No Weeds
2009	3	M/W	Pole Rake	0	0	No Weeds
2010	4	M	Pole Rake	0	0	No Weeds
2011	3	W	Pole Rake	0	0	No Weeds

Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Half Moon Lake (154 Sample points) Date: 2007 thru 2011 WBIC: 1435800 County: Marathon EWM = Eurasis Crew: RAL/CTM CLP = Curly-le Datum: WGS84 NWM = Northe

Point Latitude Longitude

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

N/A = Not Accessible
M = Muck
W = Woody Debris

S = Sand

G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Rk = Rock

97	N44.81463737	W89.6995749				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	S	Pole Rake	0	0	No Weeds
2008	3	S,W	Pole Rake	0	0	No Weeds
2009	3	M/S	Pole Rake	0	0	No Weeds
2010	4	S	Pole Rake	0	0	No Weeds
2011	4	S/W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
98	N44.81396221	W89.69957841				х Х
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	S	Pole Rake	0	0	No Weeds
2008	5	S	Pole Rake	0	0	No Weeds
2009	4	W	Pole Rake	0	0	No Weeds
2010	5	S	Pole Rake	0	0	No Weeds
2011	5	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
99	N44.81328706	W89.69958191				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	7	М	Pole Rake	0	0	No Weeds
2008	7	-	-	-	-	N/A No Reading
2009	7	-		-	-	N/A No Reading
2010	7	-		-	-	N/A No Reading
2011	7	-		-	-	N/A No Reading

Point	Latitude	Longitude				
100	N44.8126119	W89.69958542				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	7	М	Pole Rake	0	0	No Weeds
2008	7	-	-	-	-	N/A No Reading
2009	7	-	-	-	-	N/A No Reading
2010	7	-	-	- ·	-	N/A No Reading
2011	7	-		-	-	N/A No Reading

Point	Latitude	Longitude				
101	N44.81193674	W89.69958892				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007		M	Pole Rake	0	0	No Weeds
2008	7	-	-	-	-	N/A No Reading
2009	7	-	-	-	<b>.</b> .	N/A No Reading
2010	7	-		-	-	N/A No Reading
2011	7	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
102	N44.81126158	W89.69959243				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007		S	Pole Rake	0	0	No Weeds
2008	1	S	Pole Rake	0	0	No Weeds
2009	1	S	Pole Rake	0	0	No Weeds
2010	3	S	Pole Rake	0	0	No Weeds
2011	1	S	Pole Rake	0	0	No Weeds

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Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Half Moon Lake (154 Sample points) Date: 2007 thru 2011 WBIC: 1435800 County: Marathon Crew: RAL/CTM Datum: WGS84

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

- N/A = Not Accessible M = Muck
- W = Woody Debris
- S = Sand
- G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
- Rk = Rock

Point	Latitude	Longitude				
103	N44.81868581	W89.69860528				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	S/M	Pole Rake	0	0	No Weeds
2008	1	М	Pole Rake	0	0	No Weeds
2009	1	S	Pole Rake	0	0	No Weeds
2010	3	M/S	Pole Rake	0	0	No Weeds
2011	2	М	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
104	N44.8173355	W89.69861231			-	
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	M	Pole Rake	0	0	No Weeds
2008	4	M	Pole Rake	0 ,	0	No Weeds
2009	4	M	Pole Rake	0	0	No Weeds
2010	5	M	Pole Rake	0	0	No Weeds
2011	4	М	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
105	N44.81666034	W89.69861583				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	M	Pole Rake	0	0	No Weeds
2008	4	M	Pole Rake	0	0	No Weeds
2009	4	M	Pole Rake	0	0	No Weeds
2010	5	M	Pole Rake	0	0	No Weeds
2011	4	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
106	N44.81598519	W89.69861935				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	W/M	Pole Rake	0	0	No Weeds
2008	4	Ŵ	Pole Rake	0	0	No Weeds
2009	3	W	Pole Rake	0	0	No Weeds
2010	4	W	Pole Rake	0	0	No Weeds
2011	3	w	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
107	N44.81531003	W89.69862286				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	W/S	Pole Rake	0	0	No Weeds
2008	4	M,S	Pole Rake	0	0	No Weeds
2009	3	W	Pole Rake	0	0	No Weeds
2010	4	S/W	Pole Rake	0	0	No Weeds
2011	3	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
108	N44.81463487	W89.69862638				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	S/W	Pole Rake	0	0	No Weeds
2008	2	S,W	Pole Rake	0	0	No Weeds
2009	1	W	Pole Rake	0	0	No Weeds
2010	3	S	Pole Rake	0	0	No Weeds
2011	2	S	Pole Rake	0	0	No Weeds

Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Half Moon Lake (154 Sample points) Date: 2007 thru 2011 WBIC: 1435800 County: Marathon Crew: RAL/CTM Datum: WGS84 NWM = Norther

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

N/A =	Not	Accessible
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M = Muck

W = Woody Debris

S = Sand

G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Rk = Rock

Point	Latitude	Longitude				
109	N44.81395971	W89.69862989				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	M	Pole Rake	0	0	No Weeds
2008	3	M	Pole Rake	0	0	No Weeds
2009	3	Ş	Pole Rake	0	0	No Weeds
2010	4	М	Pole Rake	0	0	No Weeds
2011	3	M/S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
110	N44.81328456	W89.69863341				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	S	Pole Rake	0	0	No Weeds
2008	2	S .	Pole Rake	0	0	No Weeds
2009	1	S	Pole Rake	0	0	No Weeds
2010	3	W	Pole Rake	0	0	No Weeds
2011	2	S/W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
111	N44.8126094	W89.69863693				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	6	M	Pole Rake	0	0	No Weeds
2008	6	-	-	-	-	N/A No Reading
2009	6	-	-	-	-	N/A No Reading
2010	6	-	-	-	-	N/A No Reading
2011	6	-		-	-	N/A No Reading

Point	Latitude	Longitude					
112	N44.81193424	W89.69864044					
Year	Depth	Sediment	Method	EWM	CLP	Comments	
2007	6	S/M	Pole Rake	0	0	No Weeds	
2008	6	-	-	-	-	N/A No Reading	
2009		-	-	-	-	N/A No Reading	
2010		-	-	-	-	N/A No Reading	
2011	6	-	-	-	-	N/A No Reading	

Point	Latitude	Longitude				
113	N44.81125908	W89.69864396				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	W	Pole Rake	0	0	No Weeds
2008	6	M	Pole Rake	0	0	No Weeds
2009	6	W	Pole Rake	0	0	No Weeds
2010	6	S	Pole Rake	0	0	No Weeds
2011	6	W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
114	N44.81058393	W89.69864748				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	S	Pole Rake	0	0	No Weeds
2008	3	S	Pole Rake	0	0	No Weeds
2009	4	S	Pole Rake	0	0	No Weeds
2010	6	S	Pole Rake	0	0	No Weeds
2011	3	S	Pole Rake	0	0	No Weeds

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Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Half Moon Lake (154 Sample points) Date: 2007 thru 2011 WBIC: 1435800 County: Marathon Crew: RAL/CTM Datum: WGS84 NWM = Norther

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

- N/A = Not Accessible
- M = Muck
- W = Woody Debris
- S = Sand
- G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Comments

Rk = Rock

N/A Land N/A Land

N/A Land

N/A Land

N/A Land

	Point	Latitude	Longitude		
	115	N44.81868331	W89.69765669		
	Year	Depth	Sediment	Method	
1	2007	-	-	-	
	2008	-	-	-	
	2009	-	-	-	
	2010	-	-	-	
	2011	-	-	-	

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Point	Latitude	Longitude				
116	N44.81800815	W89.69766021				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	M	Pole Rake	0	0	No Weeds
2008	4	M	Pole Rake	0	0	No Weeds
2009	4	M	Pole Rake	0	0	No Weeds
2010	4	M	Pole Rake	0	0	No Weeds
2011	4	M	Pole Rake	0	0	No Weeds

EWM

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CLP

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Point	Latitude	Longitude				
117	N44.81733299	W89.69766374				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	M	Pole Rake	0	0	No Weeds
2008	4	M,S	Pole Rake	0	0	No Weeds
2009	3	W	Pole Rake	0	0	No Weeds
2010	5	M	Pole Rake	0	0	No Weeds
2011	4	M	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
118	N44.81665784	W89.69766727				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	М	Pole Rake	0	0	No Weeds
2008	3	М	Pole Rake	0	0	No Weeds
2009	3	W	Pole Rake	0	0	No Weeds
2010	4	W	Pole Rake	0	0	No Weeds
2011	3	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
119	N44.81598268	W89.6976708				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	М	Pole Rake	0	0	No Weeds
2008	4	М	Pole Rake	0	0	No Weeds
2009	4	M	Pole Rake	0	0	No Weeds
2010	5	M	Pole Rake	0	0	No Weeds
2011	4	M/S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
120	N44.81530752	W89.69767433				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	S/M	Pole Rake	0	0	No Weeds
2008	3	S,W	Pole Rake	0	0	No Weeds
2009	3	M/S	Pole Rake	0	0	No Weeds
2010	3	M	Pole Rake	0	0	No Weeds
2011	3	M/S	Pole Rake	0	0	No Weeds

Invasive Species Point Intercep	ot Survey Report
Project/Lake: Mosinee/Half Moon	Lake (154 Sample points)
Date: 2007 thru 2011	
WBIC: 1435800	
County: Marathon	EWM = Eurasian
Crew: RAL/CTM	CLP = Curly-leaf
Datum: WGS84	NWM = Northern

EWM = Eurasian Water Milfoil
CLP = Curly-leaf Pondweed
NWM = Northern Water Milfoil

N/A = Not Accessible
M = Muck
W = Woody Debris

W		W	000	ly	De	br
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S = Sand

G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Rk = Rock

Point	Latitude	Longitude				
121	N44.81463236	W89.69767785				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	S	Pole Rake	0	0	No Weeds
2008	1	S	Pole Rake	0	0	No Weeds
2009	1	S	Pole Rake	0	0	No Weeds
2010	2	M/S	Pole Rake	0	0	No Weeds
2011	1	M/S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
122	N44.81395721	W89.69768138				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	S	Pole Rake	0	0	No Weeds
2008	1	S	Pole Rake	0	0	No Weeds
2009	1	S	Pole Rake	0	0	No Weeds
2010	2	S	Pole Rake	0	0	No Weeds
2011	1	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
123	N44.81328205	W89.69768491				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	W/M	Pole Rake	0	0	No Weeds
2008	3	M	Pole Rake	0	0	No Weeds
2009	3	М	Pole Rake	0	0	No Weeds
2010	4	M	Pole Rake	0	0	No Weeds
2011	3	M/W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude					
124	N44.81193174	W89.69769196					
Year	Depth	Sediment	Method	EWM	CLP	Comments	
2007	5	M	Pole Rake	0	0	No Weeds	
2008	5	М	Pole Rake	0	0	No Weeds	
2009	5	M/S	Pole Rake	0	0	No Weeds	
2010	6	M/W	Pole Rake	0	0	No Weeds	
2011	5	M/S	Pole Rake	0	0	No Weeds	<u></u>

Point	Latitude	Longitude				
125	N44.81125658	W89.69769549				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	W	Pole Rake	0	0	No Weeds
2008	4	W	Pole Rake	0	0	No Weeds
2009	4	W	Pole Rake	0	0	No Weeds
2010	5	W	Pole Rake	0	0	No Weeds
2011	4	W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
126	N44.81058142	W89.69769902				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	W	Pole Rake	0	0	No Weeds
2008	5	W	Pole Rake	0	0	No Weeds
2009	4	W	Pole Rake	0	0	No Weeds
2010	6	S	Pole Rake	0	0	No Weeds
2011	5	W	Pole Rake	0	0	No Weeds

Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Half Moon Lake (154 Sample points) Date: 2007 thru 2011 WBIC: 1435800 County: Marathon Crew: RAL/CTM Datum: WGS84

EWM = Eurasian Water Milfoil CLP = Curly-leaf Poridweed NWM = Northern Water Milfoil N/A = Not Accessible M = Muck W = Woody Debris S = Sand G = Gravel R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.) Rk = Rock

Point	Latitude	Longitude				
127	N44.81800563	W89.69671163				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	М	Pole Rake	0	0	No Weeds
2008	3	М	Pole Rake	0	0	No Weeds
2009	3	М	Pole Rake	0	0	No Weeds
2010	4	М	Pole Rake	0	0	No Weeds
2011	3	М	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
128	N44.81733048	W89.69671517				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	M	Pole Rake	0	0	No Weeds
2008	3	M,S	Pole Rake	0	0	No Weeds
2009	3	W	Pole Rake	0	0	No Weeds
2010	4	S	Pole Rake	0	0	No Weeds
2011	3	S/W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
129	N44.81665532	W89.69671871				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	S/M	Pole Rake	Ö	0	No Weeds
2008	2	S	Pole Rake	0	0	No Weeds
2009	3	M	Pole Rake	0	0	No Weeds
2010	3	M/S	Pole Rake	0	0	No Weeds
2011	2	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
130	N44.81598016	W89.69672225	1			
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	S/M	Pole Rake	0	0	No Weeds
2008	2	S	Pole Rake	0	0	No Weeds
2009	2	S/W	Pole Rake	0	0	No Weeds
2010	3	M/S	Pole Rake	0	0	No Weeds
2011	2	М	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
131	N44.81530501	W89.69672579				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	W/M	Pole Rake	0	0	No Weeds
2008		M,W	Pole Rake	0	0	No Weeds
2009	2	М	Pole Rake	0	0	No Weeds
2010		S	Pole Rake	0	0	No Weeds
2011		S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
132	N44.81462985	W89.69672933				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	S	Pole Rake	0	0	No Weeds
2008	1	M,S	Pole Rake	0	0	No Weeds
2009	1	S	Pole Rake	0	0	No Weeds
2010		S	Pole Rake	0	0	No Weeds
2011		S	Pole Rake	0	0	No Weeds

 Invasive Species Point Intercept Survey Report

 Project/Lake: Mosinee/Half Moon Lake (154 Sample points)

 Date: 2007 thru 2011

 WBIC: 1435800

 County: Marathon

 Crew: RAL/CTM

 Datum: WGS84

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

N/A :	= Not	Accessible
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- M = Muck
- W = Woody Debris
- S = Sand
- G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Comments

Rk = Rock

No Weeds

No Weeds

No Weeds

N/A Shallow Muck

N/A Too Shallow

Poir	nt	Latitude	Longitude		
1	33	N44.81395469	W89.69673287		
Yea	r	Depth	Sediment	Method	Г
20	07	1	М	Pole Rake	Γ
20	08	1	M,S	Pole Rake	Γ
20	09	-	М	-	Γ
20	10	2	М	Pole Rake	
20	11	-	-	-	Γ

Point	Latitude	Longitude				
134	N44.81260438	W89.69673994				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	W	Pole Rake	0	0	No Weeds
2008	1	М	Pole Rake	0	0	No Weeds
2009	1	М	Pole Rake	0	0	No Weeds
2010	3	M	Pole Rake	0	0	No Weeds
2011	2	M/W	Pole Rake	0	0	No Weeds

EWM

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CLP

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Point	Latitude	Longitude				
135	N44.81192922	W89.69674348				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	S	Pole Rake	0	0	No Weeds
2008	1	S	Pole Rake	0	0	No Weeds
2009	1	S	Pole Rake	0	0	No Weeds
2010	2	S	Pole Rake	0	0	No Weeds
2011	1	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude					
136	N44.81125406	W89.69674702					
Year	Depth	Sediment	Method	EWM	CLP	Comments	
2007	4	М	Pole Rake	0	0	No Weeds	-
2008	4	М	Pole Rake	0	0	No Weeds	
2009	3	M/W	Pole Rake	0	0	No Weeds	
2010	. 5	М	Pole Rake	0	0	No Weeds	
2011	4	M/S	Pole Rake	0	0	No Weeds	

Point	Latitude	Longitude				
137	N44.81057891	W89.69675056				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007		S	Pole Rake	0	0	No Weeds
2008		S,W	Pole Rake	0	0	No Weeds
2009	2	S	Pole Rake	0	0	No Weeds
2010	3	S	Pole Rake	0	0	No Weeds
2011	2	W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
138	N44.80990375	W89.6967541	1			
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	S	Pole Rake	0	0	No Weeds
2008	4	M,S	Pole Rake	0	0	No Weeds
2009	3	S	Pole Rake	0	0	No Weeds
2010	4	S/W	Pole Rake	0	0	No Weeds
2011	3	S	Pole Rake	0	0	No Weeds

Invasive Species Point Intercept Survey	Report
Project/Lake: Mosinee/Half Moon Lake (154	Sample points)
Date: 2007 thru 2011	
WBIC: 1435800	
County: Marathon	EWM = Eurasian Water Milfoil
Crew: RAL/CTM	CLP = Curly-leaf Pondweed
Datum: WGS84	NWM = Northern Water Milfoil

N/A = Not Accessible

- M = Muck
- W = Woody Debris
- S = Sand
- G = Gravei
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
- Rk = Rock

Point	Latitude	Longitude				
139	N44.81867827	W89.6957595				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	-	-	-	-	N/A Land
2008	-	-	-	-	-	N/A Land
2009	-	-		-	-	N/A Land
2010		-	-	-	-	N/A Land
2011	-	-	-	-	-	N/A Land

Point	Latitude	Longitude				
140	N44.81800311	W89.69576305				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	M	Pole Rake	0	0	No Weeds
2008	3	M	Pole Rake	0	0	No Weeds
2009	3	M	Pole Rake	0	0	No Weeds
2010	4	M	Pole Rake	0	0	No Weeds
2011	2	M/S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
141	N44.81732795	W89.6957666				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	S	Pole Rake	0	0	No Weeds
2008	1	S	Pole Rake	0	0	No Weeds
2009	-	S	-	-	-	N/A Shallow Sand
2010	2	S	Pole Rake	0	0	No Weeds
2011	1	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
142	N44.81597764	W89.6957737				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	-	-	-	-	N/A Land
2008	-	-	-	-	-	N/A Larid
2009		-	-	-	-	N/A Land
2010		-	-	-	-	N/A Land
2011		-	-	-	-	N/A Larid

Point	Latitude	Longitude				
143	N44.81530248	W89.69577725				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	M	Pole Rake	0	0	No Weeds
2008	1	M	Pole Rake	0	0	No Weeds
2009		M	-	-	-	N/A Shallow Muck
2010		М	Pole Rake	0	0	No Weeds
2011	2	М	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
144	N44.81395217	W89.69578435				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	W/M	Pole Rake	0	0	No Weeds
2008	1	М	Pole Rake	0	0	No Weeds
2009	-	M	-	-	-	N/A Shallow Muck
2010		М	Pole Rake	0	0	No Weeds
2011		-	-	-	-	N/A Too Shallow

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Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Half Moon Lake (154 Sample points) Date: 2007 thru 2011 WBIC: 1435800 County: Marathon Crew: RAL/CTM Datum: WGS84 NWM = Norther

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

- N/A = Not Accessible
- M = Muck
- W = Woody Debris

S = Sand

G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Rk = Rock

Point	Latitude	Longitude						
145	N44.81327701	W89.6957879						
Year	Depth	Sediment	Method	EWM	CLP		Comments	
2007	-	-		-		N/A Too Shallow		
2008		-		-	-	N/A Too Shallow		
2009		-	-	-	-	N/A Too Shallow		
2010		-	-	-	-	N/A Too Shallow		
2011		-	-	-	-	N/A Too Shallow		1 ×

Point	Latitude	Longitude				
146	N44.8119267	W89.695795				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007		-	-	-	-	N/A Land
2008	-	-	-	-	-	N/A Land
2009		-	-	-	-	N/A Land
2010	-	-	-	-	-	N/A Land
2011	-	-		-	-	N/A Land

Point	Latitude	Longitude					
147	N44.81125154	W89.69579855					
Year	Depth	Sediment	Method	EWM	CLP		Comments
2007	2	M	Pole Rake	0	0	No Weeds	
2008	3	M	Pole Rake	0	0	No Weeds	
2009	2	M	Pole Rake	0	0	No Weeds	
2010	3	W	Pole Rake	0	0	No Weeds	
2011	3	M/S	Pole Rake	0	0	No Weeds	the second se

Point	Latitude	Longitude					
148	N44.81732542	2 W89.69481803					
Year	Depth	Sediment	Method	EWM	CLP		Comments
2007	-	-	-	-	-	N/A Land	
2008		-	-	-	-	N/A Land	
2009	<u> </u>	-	-	-	-	N/A Land	
2010	-	-	-	-	-	N/A Land	
2011		-	-	-	-	N/A Land	

Point	Latitude	Longitude					
149	N44.81665027	W89.6948216					
Year	Depth	Sediment	Method	EWM	CLP		Comments
2007		-		-	-	N/A Land	
2008		-	-	-	-	N/A Land	
2009		-	-	-	•	N/A Land	
2010		-	-	-	-	N/A Land	
2011	-	-	-	-	-	N/A Land	

Point	Latitude	Longitude					
150	N44.81394964	W89.69483584					
Year	Depth	Sediment	Method	EWM	CLP		Comments
2007		-		-	-	N/A Too Shallow	
2008		-	-	-	-	N/A Too Shallow	
2009		-	-	-	-	N/A Too Shallow	
2010	-	-	-	-	-	N/A Too Shallow	
2011	-	-	-	-	-	N/A Too Shallow	

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Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Half Moon Lake (154 Sample points) Date: 2007 thru 2011 WBIC: 1435800 County: Marathon Crew: RAL/CTM Datum: WGS84

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

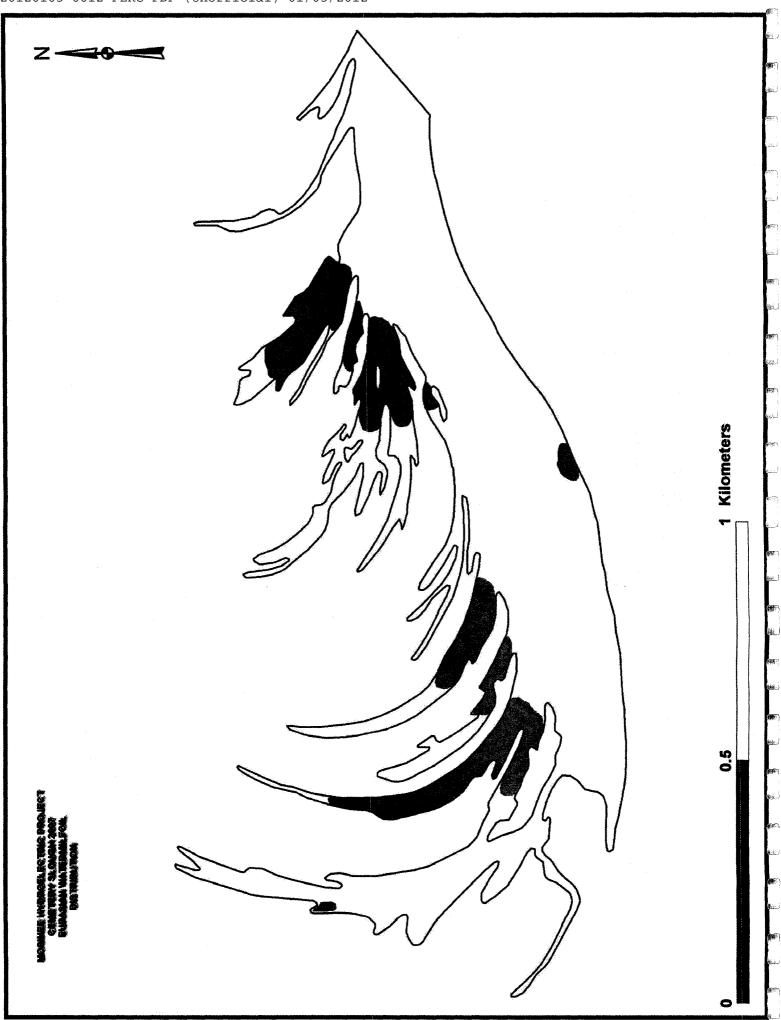
- N/A = Not Accessible M = Muck W = Woody Debris S = Sand
- G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
- Rk = Rock

Point	Latitude	Longitude				
151	N44.81124901	W89.69485008				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	М	Pole Rake	0	0	No Weeds
2008	2	M	Pole Rake	0	0	No Weeds
2009	2	M	Pole Rake	0	0	No Weeds
2010	3	M	Pole Rake	0	0	No Weeds
2011	2	M/S	Pole Rake	0	0	No Weeds

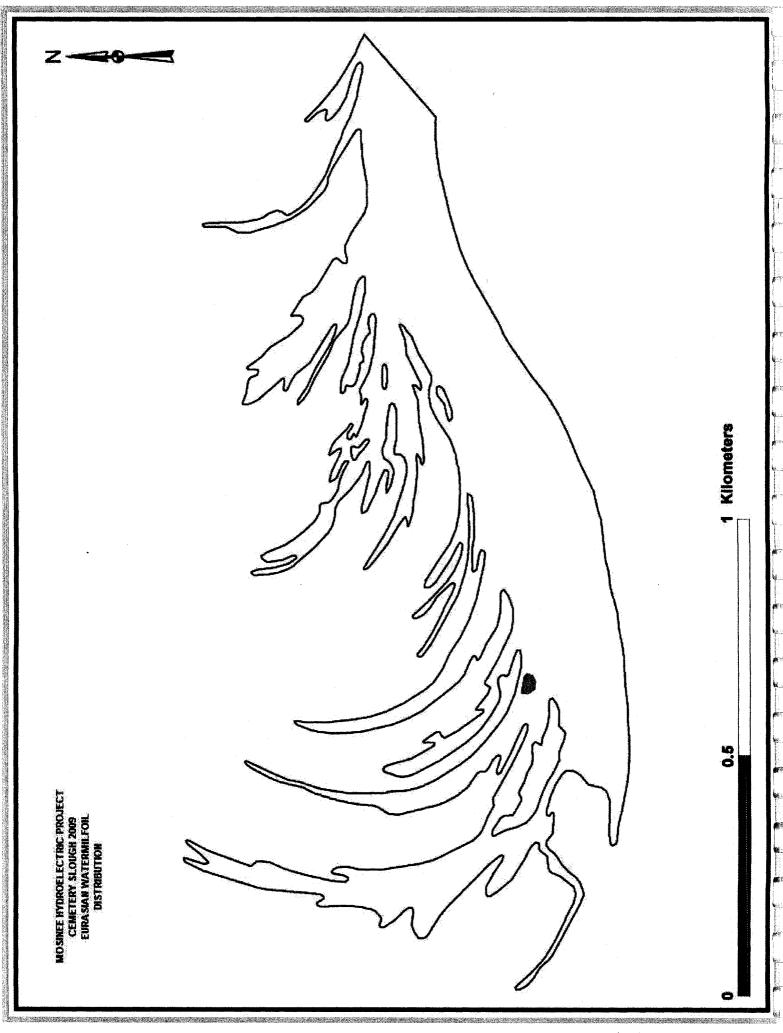
Point	Latitude	Longitude				
152	N44.81057385	W89.69485364				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	-	-	-	-	N/A Land
2008		-	-	-	-	N/A Land
2009	-	-	-	-	-	N/A Land
2010		-	-	-	-	N/A Land
2011		-	-	-	-	N/A Land

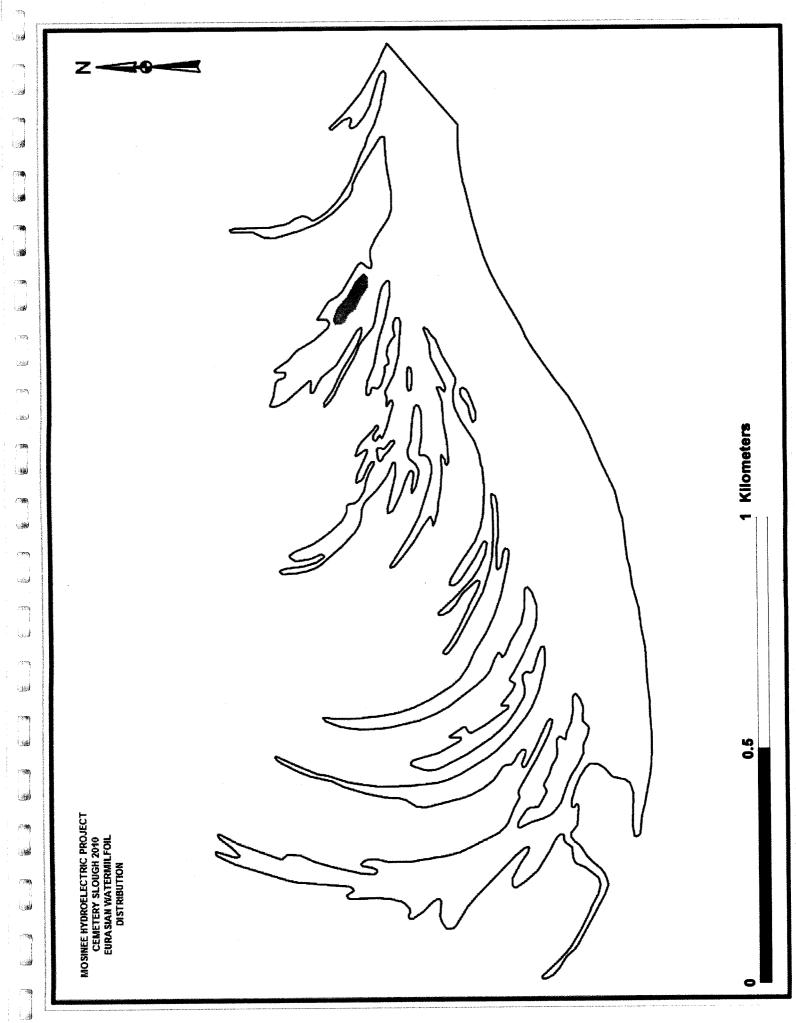
Point	Latitude	Longitude				
153	N44.81259679	W89.69389447				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	-	-	-	-	N/A Too Shallow
2008		-	-	-	-	N/A Too Shallow
2009		-	-	-	-	N/A Too Shallow
2010		-	-	-	-	N/A Too Shallow
2011		-	-	-	-	N/A Too Shallow

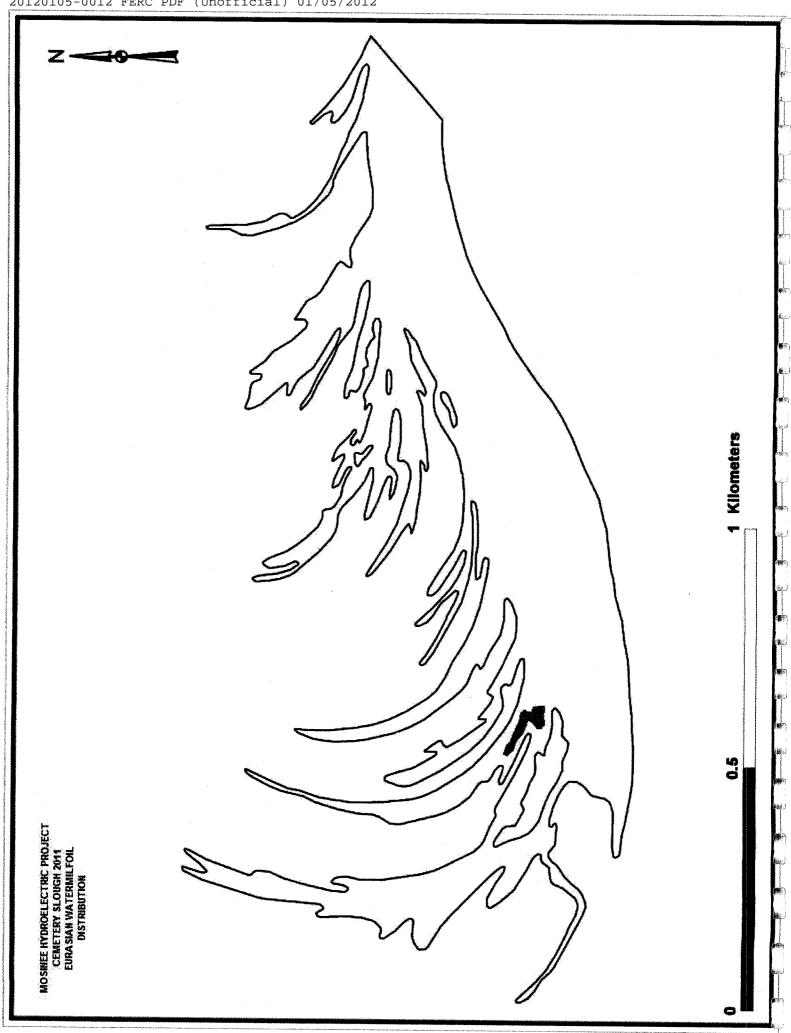
Point	Latitude	Longitude				
154	N44.81124647	W89.69390161				· · · · · · · · · · · · · · · · · · ·
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	- 1	-	-	-	N/A Land
2008	-	- 1	-	-	-	N/A Land
2009		-	-	-	-	N/A Land
2010		-	-	-	-	N/A Land
2011		-	-	-	-	N/A Land

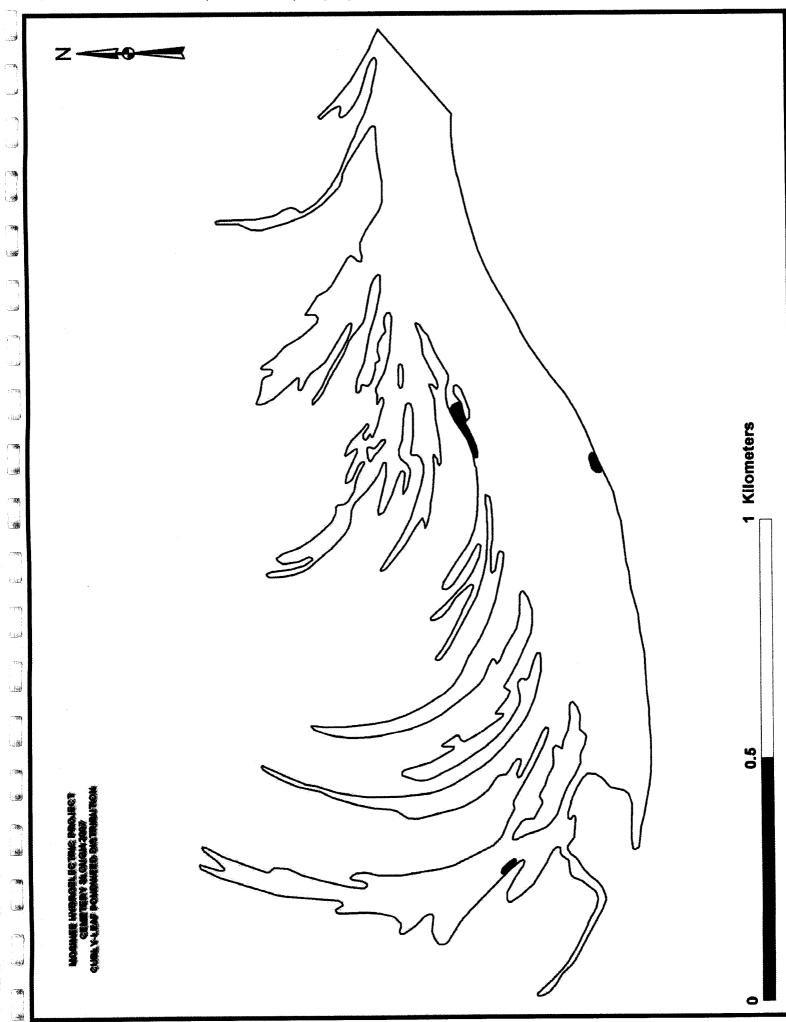


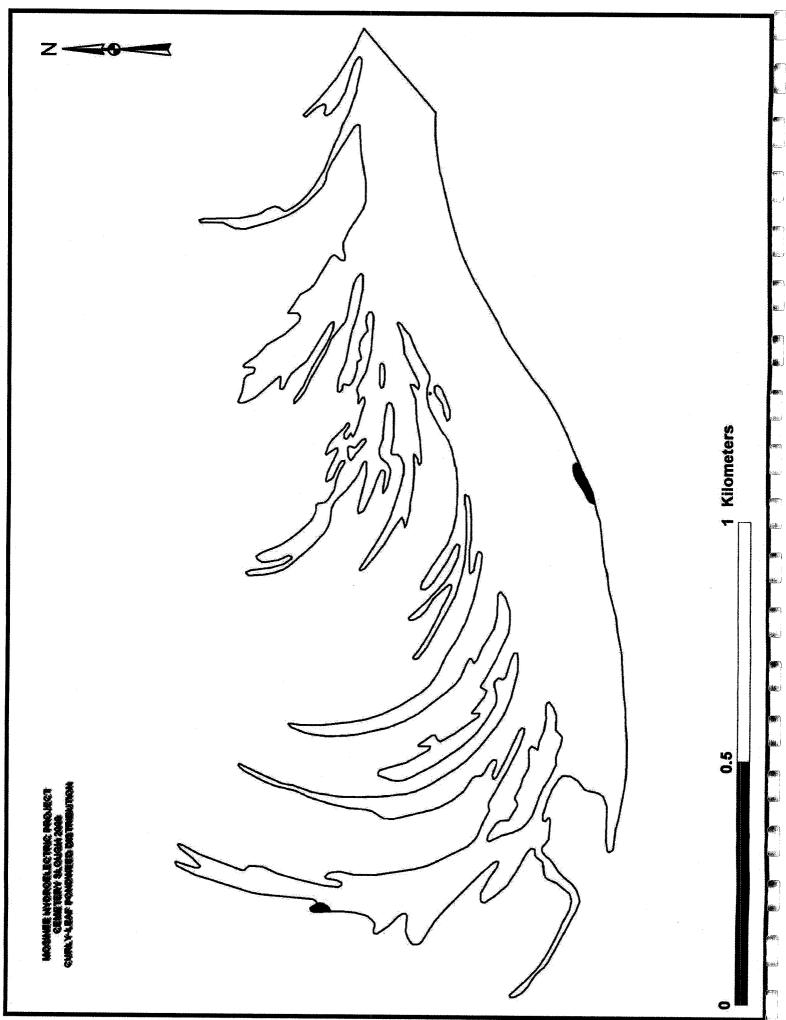


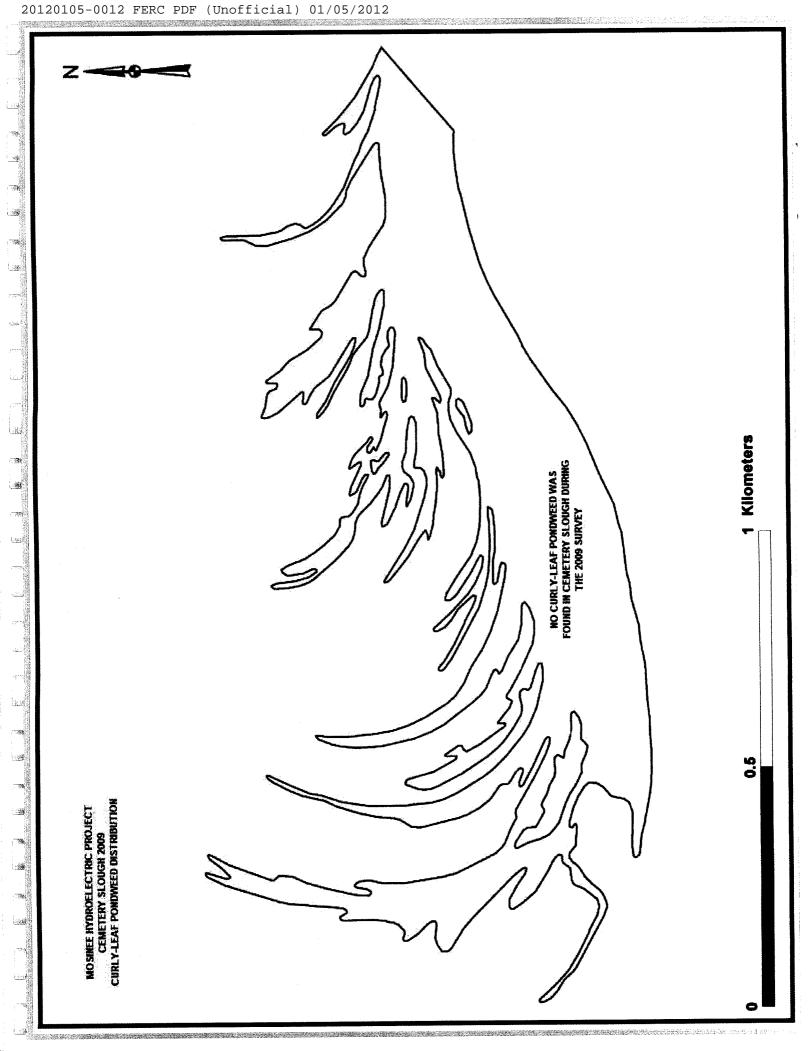


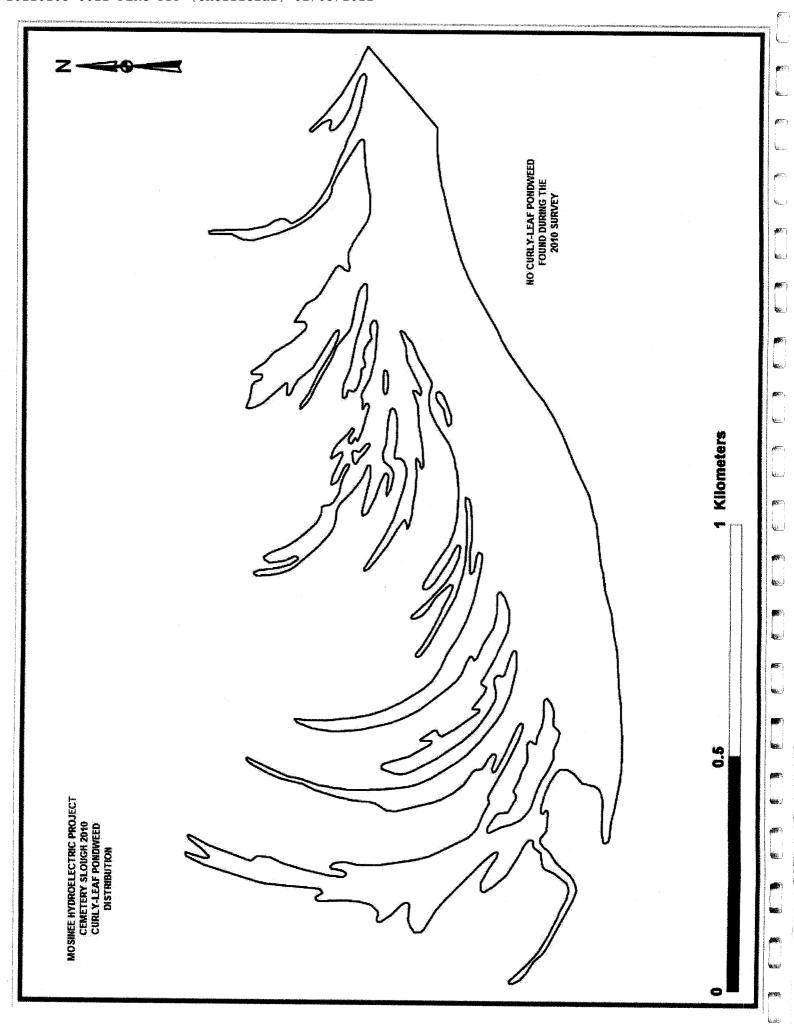


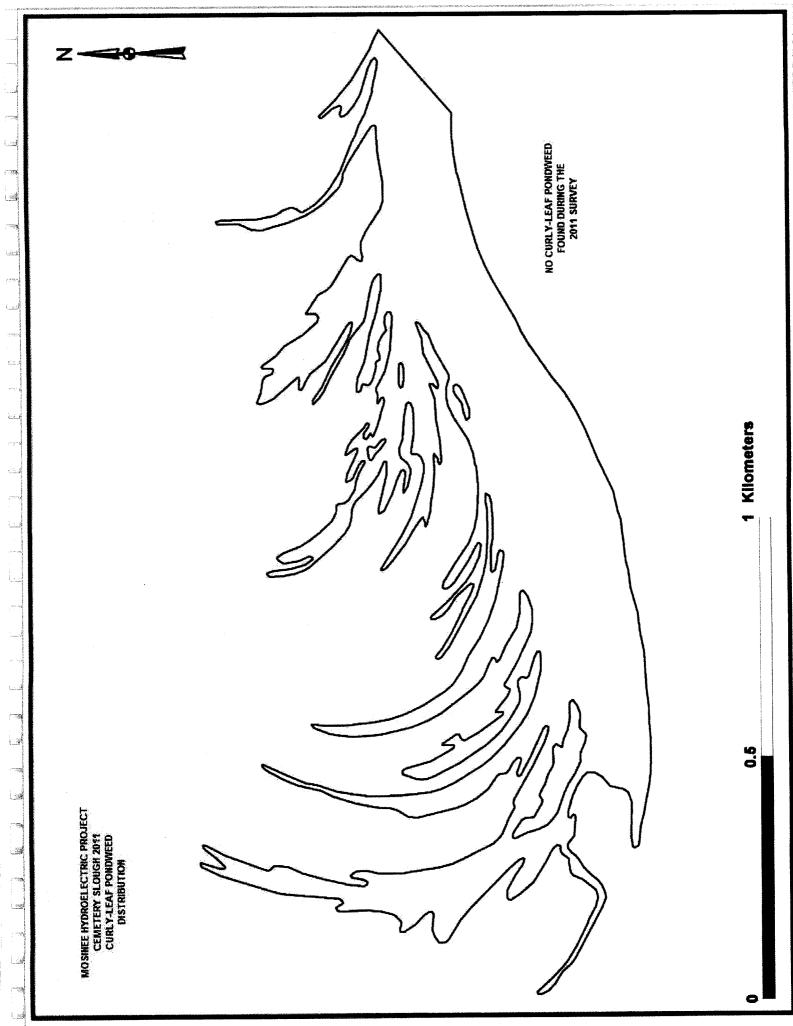


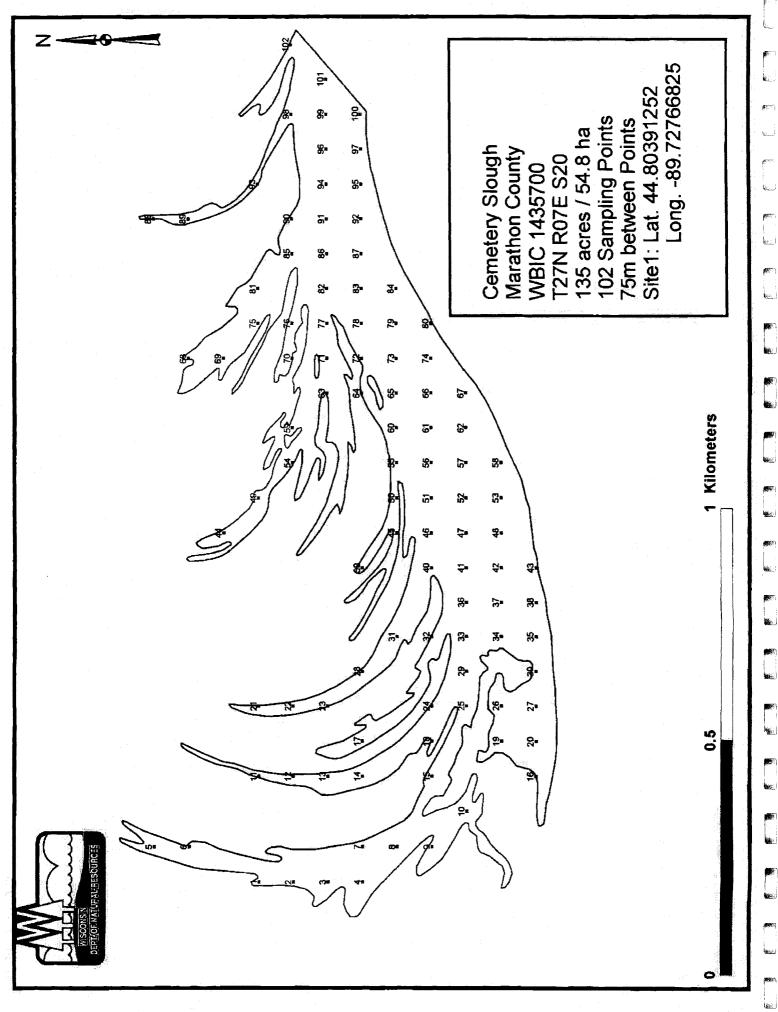
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02 Sample points)
EWM = Eurasian Water Milfoil
CLP = Curly-leaf Pondweed
NWM = Northern Water Milfoil

N/A	= Not	Accessible

- M = Muck
- W = Woody Debris
- S = Sand G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
- Rk = Rock

Point	Latitude	Longitude				
1	N44.80391252	W89.72766825				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	М	Pole Rake	1	0	-
2008	1	M	Pole Rake	1	0	-
2009	1	М	Pole Rake	0	0	No Weeds
2010	3	M/S	Pole Rake	0	0	-
2011	2	М	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
2	N44.80323736	W89.72767143				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M	Pole Rake	0	0	No Weeds
2008	2	М	Pole Rake	0	0	No Weeds
2009	2	M	Pole Rake	0	0	No Weeds
2010	4	M	Pole Rake	0	0	No Weeds
2011		М	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
3	N44.8025622	W89.7276746				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M	Pole Rake	0	0	No Weeds
2008	3	M	Pole Rake	0	0	No Weeds
2009	3	M	Pole Rake	0	0	No Weeds
2010	4	М	Pole Rake	0	0	No Weeds
2011	3	M	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
4	N44.80188704	W89.72767778				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	M	Pole Rake	0	0	No Weeds
2008	2	M	Pole Rake	0	0	No Weeds
2009	2	M	Pole Rake	0	0	No Weeds Secchi Reading 1.4'
2010	4	М	Pole Rake	0	0	No Weeds Secchi Reading 1.9'
2011	3	M	Pole Rake	0	0	No Weeds Secchi Reading 1.4'

Point	Latitude	Longitude				
5	N44.80593573	W89.72671033				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	М	Pole Rake	0	0	No Weeds
2008	2	M,S	Pole Rake	0	0	No Weeds
2009	2	M/S	Pole Rake	0	0	No Weeds
2010	1	S	Pole Rake	1	0	-
2011	2	M/S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
6	N44.80526057	W89.72671352				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M	Pole Rake	0	0	No Weeds
2008	2	S,W	Pole Rake	0	0	No Weeds
2009	2	M	Pole Rake	0	0	No Weeds
2010	4	М	Pole Rake	1	0	-
2011	2	M	Pole Rake	0	0	No Weeds

Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Cemetery Slough - (102 Sample points) Date: 2007 thru 2011 WBIC: 1435700 County: Marathon Crew: RAL/CTM Datum: WGS84 NWM = Norther

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

N/A	=	Not	Accessible	e

- M = Muck
- W = Woody Debris
- S = Sand
- G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Rk = Rock

Point	Latitude	Longitude				
7	N44.80188477	W89.72672946				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M	Pole Rake	0	0	No Weeds
2008	2	M	Pole Rake	0	0	No Weeds
2009	2	. M	Pole Rake	0	0	No Weeds
2010	4	M/W	Pole Rake	0	0	No Weeds
2011	2	M	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude						
8	N44.80120961	W89.72673265						
Year	Depth	Sediment	Method	EWM	CLP	1	Comments	
2007	2	M	Pole Rake	0	0	No Weeds		
2008	3	М	Pole Rake	0	0	No Weeds		·····
2009	2	М	Pole Rake	0	0	No Weeds		
2010	4	М	Pole Rake	0	0	No Weeds		
2011	3	М	Pole Rake	0	0	No Weeds		- · · · · · · · ·

Point	Latitude	Longitude	1				
9	N44.80053445	W89.72673583					
Year	Depth	Sediment	Method	EWM	CLP		Comments
2007	1	M	Pole Rake	0	0	No Weeds	
2008		M	Pole Rake	0	0	No Weeds	
2009	-	M			-	N/A Shallow Muck	
2010		M	Pole Rake	0	0	No Weeds	
2011	-	-	- 1	- '	-	N/A Too Shallow	

Point	Latitude	Longitude					
10	N44.79985702	W89.72579073					
Year	Depth	Sediment	Method	EWM	CLP		Comments
2007	1	M	Pole Rake	0	0	No Weeds	
2008	2	M	Pole Rake	0	0	No Weeds	
2009	1	M	Pole Rake	0	0	No Weeds	
2010	4	M/R	Pole Rake	0	0	No Weeds	
2011	2	M	Pole Rake	0	0	No Weeds	

Point	Latitude	Longitude					
11	N44.8039057	W89.72482319					
Year	Depth	Sediment	Method	EWM	CLP		Comments
2007		M	-	-	-	N/A Shallow Muck	
2008	-	M	-	-	-	N/A Shallow Muck	
2009	-	M	-	-	-	N/A Shallow Muck	
2010	-	М	-	- 1	-	N/A Shallow Muck	
2011	-	-	_	-		N/A Shallow Muck	

Point	Latitude	Longitude					
12	N44.80323054	W89.7248264					
Year	Depth	Sediment	Method	EWM	CLP		Comments
2007	1	М	Pole Rake	0	0	No Weeds	
2008	1	S	Pole Rake	0	0	No Weeds	
2009	1	M/S	Pole Rake	0	0	No Weeds	
2010	3	M/W	Pole Rake	0	0	No Weeds	
2011	1	S	Pole Rake	0	0	No Weeds	

Invasive Species Point Intercept Survey Report						
Project/Lake: Mosinee/Cemetery Slough - (102 Sample points)						
Date: 2007 thru 2011						
WBIC: 1435700						
County: Marathon	EWM = Eurasian Water Milfoil					
Crew: RAL/CTM	CLP = Curly-leaf Pondweed					
Datum: WGS84	NWM = Northern Water Milfoil					

N/A = Not Accessible
M = Muck
W = Woody Debris
S = Sand
G = Gravel
R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
Rk = Rock

Point	Latitude	Longitude				
13	N44.80255538	W89.72482961				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	М	Pole Rake	0	0	No Weeds
2008	1	R	Pole Rake	0	0	No Weeds
2009	1	M	Pole Rake	0	0	No Weeds
2010	3	М	Pole Rake	0	0	-
2011	1	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
14	N44.80188022	W89.72483282				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	М	Pole Rake	0	0	No Weeds
2008	2	М	Pole Rake	1	0	•
2009	2	М	Pole Rake	1	0	No Weeds
2010	4	М	Pole Rake	0	0	No Weeds
2011	2	М	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
15	N44.8005299	W89.72483924				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	M	Pole Rake	0	0	No Weeds
2008	1	M	Pole Rake	0	0	No Weeds
2009	1	М	Pole Rake	0	0	No Weeds
2010	3	M	Pole Rake	0	0	No Weeds
2011	2	М	Pole Rake	1	0	-

Point	Latitude	Longitude				
16	N44.79850442	W89.72484887				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	- [	-	-	-	N/A Land
2008	-	-	-	-	-	N/A Land
2009	-	-	-	-	-	N/A Land
2010	-	-	-	-	-	N/A Land
2011		-	-	-	-	N/A Land

Point	Latitude	Longitude				
17	N44.80187793	W89.7238845				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	M	-	-	-	N/A Shallow Muck
2008	-	M	-	-	-	N/A Shallow Muck
2009		М	-	-	-	N/A Shallow Muck
2010		М	-	-	-	N/A Shallow Muck
2011		-	_	-	-	N/A Shallow Muck

Point	Latitude N44.80052761	Longitude W89.72389094				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	M	Pole Rake	2	0	-
2008		M,R	Pole Rake	0	0	No Weeds
2009	1	M	Pole Rake	0	0	No Weeds
2010		Root	Pole Rake	0	0	No Weeds
2011	1	М	Pole Rake	1	0	-

Invasive Species Point Intercept S	urvey Report
Project/Lake: Mosinee/Cemetery Slou	gh - (102 Sample points)
Date: 2007 thru 2011	
WBIC: 1435700	
County: Marathon	EWM = Eurasiar
Crew: RAL/CTM	CLP = Curly-leaf
Datum: WGS84	NWM = Northerr

#### EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

#### N/A = Not Accessible

- M = Muck
- W = Woody Debris
- S = Sand
- G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
- Rk = Rock

Point	Latitude	Longitude				
19	N44.79917729	W89.72389738				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	М	-	-	-	N/A Shallow Muck
2008	14.17	М	-	-	-	N/A Shallow Muck
2009	and the second se	М	_	· •	-	N/A Shallow Muck
2010	-	М	-	-	-	N/A Shallow Muck
2011	-	-	-		-	N/A Shallow Muck

Point	Latitude	Longitude					
20	N44.79850213	W89.7239006					
Year	Depth	Sediment	Method	EWM	CLP	Comments	
2007	1	М	Pole Rake	0	0	No Weeds	
2008	2	M	Pole Rake	0	0	No Weeds	
2009	1	М	Pole Rake	0	0	No Weeds	
2010	4	M	Pole Rake	0	0	No Weeds	
2011	2	М	Pole Rake	0	0	No Weeds	

Point	Latitude	Longitude				
21	N44.80390111	W89.72292649				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	6	-	<b>-</b>	-	-	N/A Blocked By Logs
2008		-	-	-	-	N/A Blocked By Logs
2009		-	-	-	-	N/A Blocked By Logs
2010		-		-	-	N/A Blocked By Logs
2011	-	-	~	-	-	N/A Blocked By Logs

Point	Latitude	Longitude					
22	N44.80322595	W89.72292972					
Year	Depth	Sediment	Method	EWM	CLP	Comments	
2007	-	-	-	-	-	N/A Blocked By Logs	
2008		-	-	-	-	N/A Blocked By Logs	· · · · ·
2009		-	-	7		N/A Blocked By Logs	
2010	-	-	-	-	-	N/A Blocked By Logs	
2011	-	-	-	-	- ·	N/A Blocked By Logs	

Point	Latitude	Longitude					
23	N44.80255079	W89.72293295					
Year	Depth	Sediment	Method	EWM	CLP	Comments	1
2007		M	-	-	-	N/A Shallow Muck	
2008		M	-	-	-	N/A Shallow Muck	
2009		M	-	-	_	N/A Shallow Muck	
2010	-	М	- · · · ·	-	-	N/A Shallow Muck	
2011	-	M		-	-	N/A Shallow Muck	

Point	Latitude	Longitude	1						
		W89.72294265							
Year	Depth	Sediment	Method	EWM	CLP		Comments		
2007	1	S	Pole Rake	0	0	No Weeds			
2008	1	S	Pole Rake	0	0	No Weeds			
2009	1	S/W	Pole Rake	0	0	No Weeds		<u> </u>	
2010	1	S/W	Pole Rake	0	0	No Weeds			
2011	2	S	Pole Rake	0	0	No Weeds			-

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Invasive Species Point Intercept Surve	y Report
Project/Lake: Mosinee/Cemetery Slough -	(102 Sample points)
Date: 2007 thru 2011	
WBIC: 1435700	
County: Marathon	EWM = Eurasian Water Milfoil
Crew: RAL/CTM	CLP = Curly-leaf Pondweed
Datum: WGS84	NWM = Northern Water Milfoil

N/A = Not Accessible
M = Muck
W = Woody Debris
S = Sand
G = Gravel
R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
Rk = Rock

Point	Latitude	Longitude				
25	N44.79985015	W89.72294588				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M	Pole Rake	1	0	-
2008	3	М	Pole Rake	1	0	-
2009	2	M	Pole Rake	0	0	No Weeds
2010	4	М	Pole Rake	0	0	No Weeds
2011	2	M	Pole Rake	1	0	-

Point	Latitude	Longitude				
26	N44.79917499	W89.72294911				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	M	-	-	-	N/A Shallow Muck
2008		M	••	-	-	N/A Shallow Muck
2009		М	-	-	-	N/A Shallow Muck
2010		М	-	-	-	N/A Shallow Muck
2011		-	-		-	N/A Shallow Muck

Point	Latitude	Longitude				
27	N44.79849983	W89.72295234				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M	Pole Rake	0	0	No Weeds
2008	2	M	Pole Rake	0	0	No Weeds
2009		М	Pole Rake	0	0	No Weeds
2010	4	M	Pole Rake	0	0	No Weeds
2011	3	M	Pole Rake	0	0	-

Point	Latitude	Longitude				
28	N44.80187333	W89.72198787				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	M	Pole Rake	0	0	No Weeds
2008	1	М	Pole Rake	0	0	No Weeds
2009	-	М		-	-	N/A Shallow Muck
2010	3	M/W	Pole Rake	0	0	No Weeds
2011		-	•	-	-	Too Shallow

Point	Latitude	Longitude				
29	N44.79984785	W89.72199759				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M	Pole Rake	1	0	-
2008	2	M	Pole Rake	1	0	-
2009	2	M/S	Pole Rake	0	0	-
2010	4	M	Pole Rake	0	0	No Weeds
2011	3	М	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
30	N44.79849753	W89.72200408				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M	Pole Rake	0	0	No Weeds
2008	2	М	Pole Rake	0	0	No Weeds
2009		M	Pole Rake	0	0	No Weeds
2010		M	Pole Rake	0	0	No Weeds
2011		М	Pole Rake	0	0	No Weeds

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Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Cemetery Slough - (102 Sample points) Date: 2007 thru 2011 WBIC: 1435700 County: Marathon EWM = Eurasia Crew: RAL/CTM CLP = Curly-lea Datum: WGS84 NWM = Norther

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

N/A = No	t Accessible
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- M = Muck
- W = Woody Debris
- S = Sand
- G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
- Rk = Rock

Point	Latitude	Longitude						
31	N44.80119586	W89.7210428						
Year	Depth	Sediment	Method	EWM	CLP	1	Comments	
2007	1	М	Pole Rake	0	0	No Weeds		· · · · · · · · · · · · · · · · · · ·
2008		М	Pole Rake	1	0	-		
2009	1	М	Pole Rake	0	0	No Weeds		·
2010	4	М	Pole Rake	0	0	No Weeds		·
2011	2	M	Pole Rake	0	0	No Weeds	· · · · · · · · · · · · · · · · · · ·	

Point	Latitude	Longitude				
32	N44.8005207	W89.72104606				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	· M	Pole Rake	1	0	-
2008	1	M,W	Pole Rake	0	0	No Weeds
2009	1	M	Pole Rake	0	0	No Weeds
2010	2	W	Pole Rake	0	0	No Weeds
2011	1	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude						
33	N44.79984554	W89.72104931			ζ.			
Year	Depth	Sediment	Method	EWM	CLP		Comments	
2007	2	M	Pole Rake	0	0	No Weeds		
2008	3	M	Pole Rake	0	0	No Weeds		
2009	3	M	Pole Rake	0	0	No Weeds		
2010	4	M	Pole Rake	0	0	No Weeds		
2011	3	M	Pole Rake	0	0	No Weeds		

Point	Latitude	Longitude						
34	N44.79917038	W89.72105256				,		
Year	Depth	Sediment	Method	EWM	CLP		Comments	
2007	2	M	Pole Rake	0	0	No Weeds		
2008	3	M	Pole Rake	0	0	No Weeds		
2009	3	M	Pole Rake	0	0	No Weeds	· · · · · · · · · · · · · · · · · · ·	
2010	5	M	Pole Rake	0	0	No Weeds		
2011	3	M	Pole Rake	0	0	No Weeds		

Point	Latitude	Longitude					
		W89.72105581					
Year		Sediment	Method	EWM	CLP		Comments
2007	2	M	Pole Rake	0	0	No Weeds	
2008		М	Pole Rake	0	0	No Weeds	
2009	2	M	Pole Rake	0	0	No Weeds	
2010	5	M	Pole Rake	0	0	No Weeds	
2011	3	M	Pole Rake	0	0	No Weeds	

Point	Latitude	Longitude						
36	N44.79984322	W89.72010102						
Year	Depth	Sediment	Method	EWM	CLP		Comments	
2007	2	M	Pole Rake	0	0	No Weeds		
2008	3	M	Pole Rake	0	0	No Weeds		
2009	3	M	Pole Rake	0	0	No Weeds		
2010	5	M	Pole Rake	0	0	No Weeds		
2011	3	M	Pole Rake	0	0	No Weeds		

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Invasive Species Point Intercept Survey Report					
Project/Lake: Mosinee/Cemetery Slough - (102 Sample points)					
Date: 2007 thru 2011					
WBIC: 1435700					
County: Marathon	EWM = Eurasian Water Milfoil				
Crew: RAL/CTM	CLP = Curly-leaf Pondweed				
Datum: WGS84	NWM = Northern Water Milfoil				

N/A = Not Accessible
M = Muck

- W = Woody Debris
- S = Sand
- G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
- Rk = Rock

Point	Latitude	Longitude				
37	N44.79916806	W89.72010429				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	M	Pole Rake	0	0	No Weeds
2008	3	M	Pole Rake	0	0	No Weeds
2009	3	М	Pole Rake	0	0	No Weeds
2010	5	M/S	Pole Rake	0	0	No Weeds
2011	3	М	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
38	N44.7984929	W89.72010755				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	M	Pole Rake	0	0	No Weeds
2008	3	M	Pole Rake	0	0	No Weeds
2009	3	M	Pole Rake	0	0	No Weeds
2010	4	M/W	Pole Rake	0	0	No Weeds
2011	3	M	Pole Rake	0	0	No Weeds

Point 39	Latitude N44.80186637	Longitude W89.71914291				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	-	-	-	-	N/A Blocked By Logs
2008	-	-		-	-	N/A Blocked By Logs
2009	-	-	-	-	-	N/A Blocked By Logs
2010		-	-	-	-	N/A Blocked By Logs
2011		-	-	-	-	N/A Blocked By Logs

Point	Latitude	Longitude				
40	N44.80051605	W89.71914946				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	W/M	Pole Rake	0	0	No Weeds
2008	3	M	Pole Rake	0	0	No Weeds
2009	2	M/S	Pole Rake	0	0	No Weeds
2010	3	W	Pole Rake	0	0	No Weeds
2011	2	S/W	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
41	N44.79984089	W89.71915274				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	M	Pole Rake	0	0	No Weeds
2008	3	М	Pole Rake	0	0	No Weeds
2009	3	м	Pole Rake	0	0	No Weeds
2010		M	Pole Rake	0	0	No Weeds
2011		М	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
42	N44.79916573	W89.71915601				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	M	Pole Rake	0	0	No Weeds
2008	3	М	Pole Rake	0	0	No Weeds
2009	3	М	Pole Rake	0	0	No Weeds
2010		М	Pole Rake	0	0	No Weeds
2011		М	Pole Rake	0	0	No Weeds

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Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Cemetery Slough - (102 Sample points) Date: 2007 thru 2011 WBIC: 1435700 County: Marathon Crew: RAL/CTM Datum: WGS84

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

N/A = Not A	ccessible
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- M = Muck
- W = Woody Debris

S = Sand

G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Rk = Rock

Point	Latitude	Longitude				
43	N44.79849057	W89.71915929				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	G	Pole Rake	0	0	No Weeds
2008	1	G,S	Pole Rake	0	0	No Weeds
2009	1	S	Pole Rake	0	0	No Weeds
2010	3	G	Pole Rake	0	0	No Weeds
2011	1	G	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude						
44	N44.80456467	W89.71818145					1.1	
Year	Depth	Sediment	Method	EWM	CLP		Comments	
2007	-	М	-	-		N/A Shallow Muck		1
2008		M	•	-	-	N/A Shallow Muck		
2009	and the second se	M	-	-		N/A Shallow Muck		
2010		M	-	-	-	N/A Shallow Muck		
2011	- 1	-	•	-	-	N/A Shallow Muck		

Point	Latitude	Longitude					
45	N44.80118887	W89.71819788					
Year	Depth	Sediment	Method	EWM	CLP	Comments	
2007		-	-	-	-	N/A Blocked By Logs	· · · · · · · · · · · · · · · · · · ·
2008		-	-	-	-	N/A Blocked By Logs	
2009	and the second sec	-	-	-	-	N/A Blocked By Logs	
2010		-	-	-	-	N/A Blocked By Logs	
2011	-	-	_	-	-	N/A Blocked By Logs	

Point	Latitude	Longitude						
46	N44.80051371	W89.71820117						
Year	Depth	Sediment	Method	EWM	CLP		Comments	
2007	3	W	Pole Rake	0	0	No Weeds		
2008	3	M	Pole Rake	0	0	No Weeds		
2009	3	M	Pole Rake	0	0	No Weeds		
2010	5	M/S	Pole Rake	0	0	No Weeds		
2011	4	M	Pole Rake	0	0	No Weeds		

Point	Latitude	Longitude				
47 N44.79983855		83855 W89.71820445				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	М	Pole Rake	0	0	No Weeds
2008	3	M	Pole Rake	0	0	No Weeds
2009	3	M	Pole Rake	0	0	No Weeds
2010	4	W	Pole Rake	0	0	No Weeds
2011	3	M	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
48	N44.79916339	W89.71820774				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	M	Pole Rake	0	0	No Weeds
2008	3	M	Pole Rake	0	0	No Weeds
2009	3	M	Pole Rake	0	0	No Weeds
2010	5	M	Pole Rake	0	0	No Weeds
2011	4	M	Pole Rake	0	0	No Weeds

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Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Cemetery Slough - (102 Sample points) Date: 2007 thru 2011 WBIC: 1435700 E١ County: Marathon С Crew: RAL/CTM N Datum: WGS84

WM = Eurasian Water Milfoil
LP = Curly-leaf Pondweed
WM = Northern Water Milfoil

- N/A = Not Accessible M = Muck W = Woody Debris S = Sand G = Gravel R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
- Rk = Rock

Point	Latitude	Longitude				
49	N44.80388717	W89.71723638				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	M	-	-	-	N/A Shallow Muck
2008	-	M	-	-	-	N/A Shallow Muck
2009	-	М	-	-	-	N/A Shallow Muck
2010	-	-	-		-	N/A Shallow Muck
2011	-	-	-	-	-	N/A Shallow Muck

Point	Latitude	Longitude				
50	N44.80118653	W89.71724957				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	-	-	-	-	N/A Blocked By Logs
2008	-	-	-	-	-	N/A Blocked By Logs
2009		-	-	-	-	N/A Blocked By Logs
2010	-	-	-	-	-	N/A Blocked By Logs
2011	-	-	-	-	-	N/A Blocked By Logs

Point	Latitude	Longitude					
51	N44.80051137	W89.71725287					
Year	Depth	Sediment	Method	EWM	CLP	Comments	
2007	3	M	Pole Rake	0	0	No Weeds	
2008	3	М	Pole Rake	0	0	No Weeds	
2009	3	M/W	Pole Rake	0	0	No Weeds	
2010	5	M	Pole Rake	0	0	No Weeds	
2011	4	M	Pole Rake	0	0	No Weeds	

Point	Latitude	Longitude				
52	N44.79983621	W89.71725617				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	M	Pole Rake	0	0	No Weeds
2008	3	М	Pole Rake	0	0	No Weeds
2009	3	М	Pole Rake	0	0	No Weeds
2010	5	М	Pole Rake	0	0	No Weeds
2011	4	M	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
53	N44.79916105	W89.71725947				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	M	Pole Rake	0	0	No Weeds
2008	3	M	Pole Rake	0	0	No Weeds
2009	3	M	Pole Rake	0	0	No Weeds
2010	5	M	Pole Rake	0	0	No Weeds
2011	4	M	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
54	N44.80320966	W89.71629134				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	-		-	-	N/A Land
2008		-	-	-	-	N/A Land
2009			-	-	-	N/A Land
2010		-	_	-	-	N/A Land
2011		-	-	-	-	N/A Land

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Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Cemetery Slough - (102 Sample points) Date: 2007 thru 2011 WBIC: 1435700 County: Marathon Crew: RAL/CTM Datum: WGS84 NWM = Northern

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

- N/A = Not Accessible
- M = Muck
- W = Woody Debris
- S = Sand
- G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
- Rk = Rock

Point	Latitude	Longitude				
55	N44.80118418	W89.71630127				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	М	Pole Rake	0	0	No Weeds
2008	2	S	Pole Rake	0	0	No Weeds
2009	2	S	Pole Rake	0	0	No Weeds
2010	3	S	Pole Rake	0	0	No Weeds
2011	2	S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
56	N44.80050902	W89.71630458				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	M	Pole Rake	0	0	No Weeds
2008	3	M	Pole Rake	0	0	No Weeds
2009	3	M	Pole Rake	0	0	No Weeds
2010	5	M	Pole Rake	0	0	No Weeds
2011	4	M	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
57	N44.79983386	W89.71630789				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	M	Pole Rake	0	0	No Weeds
2008	3	M	Pole Rake	0	0	No Weeds
2009	3	M	Pole Rake	0	0	No Weeds
2010	5	М	Pole Rake	0	0	Lily Pads
2011	4	M	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
58	N44.7991587	W89.71631119				•
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	М	Pole Rake	0	0	No Weeds
2008	3	М	Pole Rake	0	0	No Weeds
2009	3	М	Pole Rake	0	0	No Weeds
2010	5	M/S	Pole Rake	0	0	No Weeds
2011	4	М	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude	1			
59	N44.8032073	W89.715343				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	М	-	-	-	N/A Shallow Muck
2008		М	-	+	-	N/A Shallow Muck
2009	-	M	-	-	-	N/A Shallow Muck
2010	-	M	-	- 1	-	N/A Shallow Muck
2011	-	-	-	-	-	N/A Shallow Muck

Point	Latitude	Longitude				
60	N44.80118182	W89.71535296				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	M	Pole Rake	0	0	No Weeds
2008	3	M	Pole Rake	0	0	No Weeds
2009	3	M	Pole Rake	0	0	No Weeds
2010	5	M	Pole Rake	0	0	No Weeds
2011	4	M/S	Pole Rake	0	0	No Weeds

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Invasive Species Point Intercept Survey Report							
Project/Lake: Mosinee/Cemetery Slough - (102 Sample points)							
Date: 2007 thru 2011							
WBIC: 1435700							
County: Marathon	EWM = Eurasian Water Milfoil						
Crew: RAL/CTM	CLP = Curly-leaf Pondweed						
Datum: WGS84	NWM = Northern Water Milfoil						

N/A = Not Accessible
M = Muck
W = Woody Debris
S = Sand
G = Gravel
R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
Rk = Rock

Point	Latitude	Longitude				
61	N44.80050666	W89.71535628				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	М	Pole Rake	0	0	No Weeds
2008	3	М	Pole Rake	0	0	No Weeds
2009	3	M	Pole Rake	0	0	No Weeds
2010	5	М	Pole Rake	0	0	No Weeds
2011	4	М	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
62	N44.7998315	W89.7153596				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	М	Pole Rake	0	0	No Weeds
2008	3	М	Pole Rake	0	0	No Weeds
2009	3	M	Pole Rake	0	0	No Weeds
2010	5	М	Pole Rake	0	0	No Weeds
2011	4	M	Pole Rake	0	0	No Weeds

Point	Latitude N44.80252977	Longitude W89.71439799				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	M	Pole Rake	1	0	-
2008	1	S	Pole Rake	0	0	No Weeds
2009	-	M	-	-	-	N/A Shallow Muck
2010	3	S	Pole Rake	0	0	No Weeds
2011		-	-	-	-	N/A Too Shallow

Point	Latitude	Longitude				
64	N44.80185461	W89.71440132				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M	Pole Rake	1	0	-
2008	2	S	Pole Rake	1	0	-
2009	1	S	Pole Rake	0	0	No Weeds Secchi Reading 0.9'
2010	4	M	Pole Rake	0	0	No Weeds Secchi Reading 1.7'
2011		S	Pole Rake	0	0	No Weeds Secchi Reading 1.7'

Point	Latitude	Longitude				
65	N44.80117945	W89.71440466				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	M	Pole Rake	0	0	No Weeds
2008	4	М	Pole Rake	0	0	No Weeds
2009	4	M	Pole Rake	0	0	No Weeds
2010		М	Pole Rake	0	0	No Weeds
2011	4	M	Pole Rake	0	0	-

Point	Latitude	Longitude				
66	N44.80050429	W89.71440799				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	M	Pole Rake	0	0	No Weeds
2008	4	M	Pole Rake	0	0	No Weeds
2009		M	Pole Rake	0	0	No Weeds
2010		М	Pole Rake	0	0	No Weeds
2011	4	М	Pole Rake	0	0	No Weeds

Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Cemetery Slough - (102 Sample points) Date: 2007 thru 2011 WBIC: 1435700 County: Marathon Crew: RAL/CTM Datum: WGS84

EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

N/A =	Not	Accessible
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- M = Muck
- W = Woody Debris
- S = Sand
- G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Rk = Rock

Point	Latitude	Longitude				
67	N44.79982913	W89.71441132				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	М	Pole Rake	0	0	No Weeds
2008	3	М	Pole Rake	0	0	No Weeds
2009	3	М	Pole Rake	0	0	No Weeds
2010	5	М	Pole Rake	0	0	No Weeds
2011	4	M	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
68	N44.80522803	W89.7134363				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007		М	-	•	-	N/A Shallow Muck
2008		М	-	-	-	N/A Shallow Muck
2009	-	М	-	-	-	N/A Shallow Muck
2010	-	M	-	-	-	N/A Shallow Muck
2011	-	-	-	-	-	N/A Shallow Muck

Point	Latitude	Longitude				
69	N44.80455287	W89.71343964				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	M	Pole Rake	0	0	No Weeds
2008	1	M	Pole Rake	1	0	-
2009	1	M	Pole Rake	1	0	-
2010	1	3	Pole Rake	0	0	No Weeds
2011	1	M	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
70	N44.80320255	W89.71344632				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	-	М	-	-	-	N/A Shallow Muck
2008	-	M	-	-	-	N/A Shallow Muck
2009	-	M	-	-	-	N/A Shallow Muck
2010	-	M	-	-	-	N/A Shallow Muck
2011	-	-	- ·	- 1	-	N/A Shallow Muck

Point	Latitude	Longitude					
71	N44.80252739	W89.71344967					
Year	Depth	Sediment	Method	EWM	CLP		Comments
2007	1	M	Pole Rake	1	0	-	
2008	2	М	Pole Rake	1	0	-	······································
2009	3	M	Pole Rake	0	0	-	
2010	4	M	Pole Rake	0	0	No Weeds	
2011	3	M/S	Pole Rake	0	0	No Weeds	

Point	Latitude	Longitude				
72	N44.80185223	W89.71345301				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	2	M	Pole Rake	0	0	No Weeds
2008	2	S	Pole Rake	0	0	No Weeds
2009	1	S	Pole Rake	0	0	No Weeds
2010	3	S	Pole Rake	0	0	No Weeds
2011	2	S	Pole Rake	0	0	No Weeds

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2 Sample points)
EWM = Eurasian Water Milfoil
CLP = Curly-leaf Pondweed
NWM = Northern Water Milfoil

N/A = Not Accessible	
M = Muck	
W = Woody Debris	

W	= Wood	y
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S = Sand

G = Gravel R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Rk = Rock

Point	Latitude	Longitude				
73	N44.80117707	W89.71345635				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	M	Pole Rake	0	0	No Weeds
2008	4	М	Pole Rake	0	0	No Weeds
2009	4	M	Pole Rake	0	0	No Weeds
2010	6	М	Pole Rake	0	0	No Weeds
2011	5	М	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
74	N44.80050191	W89.71345969				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	M	Pole Rake	0	0	No Weeds
2008	4	М	Pole Rake	0	0	No Weeds
2009		M	Pole Rake	0	0	No Weeds
2010	5	M	Pole Rake	0	0	No Weeds
2011	4	М	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
75	N44.80387533	W89.71249463				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	M	Pole Rake	Ō	0	-
2008	1	M	Pole Rake	0	0	-
2009	-	M	-	-	-	N/A Shallow Muck
2010	3	M	Pole Rake	0	0	No Weeds
2011		-	-	-	-	N/A Too Shallow

Point	Latitude	Longitude				
76	N44.80320017	W89.71249798				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	M	Pole Rake	0	0	-
2008	1	M	Pole Rake	0	0	-
2009	-	М	-	-	-	N/A Shallow Muck
2010	3	М	Pole Rake	0	0	No Weeds
2011	-	· -	-	-	-	N/A Too Shallow

Point	Latitude	Longitude				
77	N44.80252501	W89.71250134				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	M	Pole Rake	1	0	-
2008	2	М	Pole Rake	1	0	-
2009	2	M	Pole Rake	0	0	No Weeds
2010		M	Pole Rake	0	0	No Weeds
2011	3	м	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
78	N44.80184985	W89.71250469				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	M	Pole Rake	0	0	No Weeds
2008		М	Pole Rake	0	0	No Weeds
2009		М	Pole Rake	0	0	No Weeds
2010		М	Pole Rake	0	0	No Weeds
2011		M	Pole Rake	0	0	-

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Invasive Species Point Intercept Surv	ey Report
Project/Lake: Mosinee/Cemetery Slough -	- (102 Sample points)
Date: 2007 thru 2011	
WBIC: 1435700	
County: Marathon	EWM ≖ Eurasiar
Crew: RAL/CTM	CLP = Curly-leaf
Datum: WGS84	NWM = Northern

an Water Milfoil af Pondweed NWM = Northern Water Milfoil

N/A = Not Accessible M = Muck W = Woody Debris S = Sand

G = Gravel

R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)

Rk = Rock

Point	Latitude	Longitude						1 
79	N44.80117469	W89.71250804						
Year	Depth	Sediment	Method	EWM	CLP	discourse discou	Comments	
2007	4	M	Pole Rake	0	0	No Weeds	·····	,
2008		M	Pole Rake	0	0	No Weeds		*
2009		М	Pole Rake	0	0	No Weeds		
2010	6	М	Pole Rake	0	0	No Weeds		
2011	5	M	Pole Rake	0	0	No Weeds		alt

			r					
Point	Latitude	Longitude						
80	N44.80049953	W89.7125114						
Year	Depth	Sediment	Method	EWM	CLP		Comments	
2007	4	М	Pole Rake	0	0	No Weeds		
2008	5	М	Pole Rake	0	0	No Weeds		
2009	3	W	Pole Rake	0	0	No Weeds		· · · · · · · · · · · · · · · · · · ·
2010	5	M/W	Pole Rake	0	0	No Weeds		
2011	5	M	Pole Rake	0	0	No Weeds		

Point	Latitude	Longitude						1 - Fail - Fa
81	N44.80387294	W89.71154628						
Year	Depth	Sediment	Method	EWM	CLP		Comments	
2007	1	M	Pole Rake	1	0	-		
2008	2	М	Pole Rake	1	0	-		
2009	2	M	Pole Rake	0	0	No Weeds		
2010	4	M	Pole Rake	1	0	-		
2011	3	M	Pole Rake	0	0	No Weeds		

Point	Latitude	Longitude							
82	N44.80252262	W89.71155301							· · · ·
Year	Depth	Sediment	Method	EWM	CLP	Т — — — — — — — — — — — — — — — — — — —		Comments	
2007	3	M	Pole Rake	0	0	No Weeds			
2008	3	M,S	Pole Rake	0	0	No Weeds			
2009	3	S	Pole Rake	0	0	No Weeds			
2010	5	S	Pole Rake	0	0	No Weeds	÷		
2011	4	S	Pole Rake	0	0	No Weeds			

Point	Latitude	Longitude						
83	N44.80184746	W89.71155637					and the second second	
Year	Depth	Sediment	Method	EWM	CLP		Comments	
2007	4	М	Pole Rake	0	0	No Weeds		
2008	5	M	Pole Rake	0	0	No Weeds		
2009	5	M	Pole Rake	0	0	No Weeds		
2010	7	M	Pole Rake	0	0	No Weeds		
2011	6	M	Pole Rake	0	0	No Weeds		

Point	Latitude	Longitude							
84	N44.8011723	W89.71155974							
Year	Depth	Sediment	Method	EWM	CLP	T	1.5	Comments	
2007		M	Pole Rake	0	0	No Weeds			
2008		М	Pole Rake	0	0	No Weeds			
2009	5	M	Pole Rake	0	0	No Weeds			
2010	7	М	Pole Rake	0	0	No Weeds			
2011	6	М	Pole Rake	0	0	No Weeds			

N/A = Not Accessible
M = Muck
W = Woody Debris
S = Sand
G = Gravel
R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
Rk = Rock

Point	Latitude	Longitude				
85	N44.80319538	W89.71060131				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	3	M	Pole Rake	0	0	No Weeds
2008	3	M	Pole Rake	0	0	-
2009	3	М	Pole Rake	0	0	No Weeds
2010	5	М	Pole Rake	0	0	No Weeds
2011	4	M/S	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
86	N44.80252022	W89.71060468				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	M	Pole Rake	0	0	No Weeds
2008	5	M	Pole Rake	0	0	No Weeds
2009	5	M	Pole Rake	0	0	No Weeds
2010	7	M	Pole Rake	0	0	No Weeds
2011	6	М	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
87	N44.80184506	W89.71060806				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	M	Pole Rake	0	0	No Weeds
2008	5	M	Pole Rake	0	0	No Weeds
2009	5	M	Pole Rake	0	0	No Weeds
2010	7	M	Pole Rake	0	0	No Weeds
2011	6	М	Pole Rake	0	0	No Weeds

Point	Latitude	Longitude				
88	N44.80589361	W89.70963942				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007		М	_	- 1	-	N/A Shallow Muck
2008	-	M	· -	-	-	N/A Shallow Muck
2009		м	-	-	-	N/A Shallow Muck
2010		M	-	-	-	N/A Shallow Muck
2011		-	-	-	-	N/A Shallow Muck

Point	Latitude	Longitude				
89	N44.80521845	W89.70964281				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	_	M		-	-	N/A Shallow Muck
2008		M	-	-	-	N/A Shallow Muck
2009		M	-	-	-	N/A Shallow Muck
2010		M	-	-	-	N/A Shallow Muck
2011		-	-	-	-	N/A Shallow Muck

Point	Latitude	Longitude				
90	N44.80319297	W89.70965297				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	S	Pole Rake	0	0	No Weeds
2008	2	S	Pole Rake	0	0	No Weeds
2009		S	Pole Rake	0	0	No Weeds
2010		S	Pole Rake	0	0	No Weeds
2011	2	S	Pole Rake	0	0	No Weeds

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Invasive Species Point Intercept Survey Report Project/Lake: Mosinee/Cemetery Slough - (102 Sample points) Date: 2007 thru 2011 WBIC: 1435700 County: Marathon Crew: RAL/CTM Datum: WGS84

#### EWM = Eurasian Water Milfoil CLP = Curly-leaf Pondweed NWM = Northern Water Milfoil

## N/A = Not Accessible

- M = Muck
- W = Woody Debris
- S = Sand
- G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
- Rk = Rock

Point	Latitude	Longitude				
91	N44.80251781	W89.70965635				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	M	Pole Rake	0	0	No Weeds
2008		M	Pole Rake	0	0	No Weeds
2009	5	M	Pole Rake	0	0	No Weeds Secchi Reading 1.5'
2010	7	М	Pole Rake	0	0	No Weeds Secchi Reading 2.6'
2011	6	М	Pole Rake	0	0	No Weeds Secchi Reading 2.6'

Point	Latitude	Longitude				
92	N44.80184265	W89.70965974				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	6	M	Pole Rake	0	0	No Weeds
2008	and a second	-	-	-	-	N/A No Reading
2009	6	-	-	-		N/A No Reading
2010		-	-	-	-	N/A No Reading
2011	6	-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
93	N44.80386572	W89.70870123				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007		М	-	-	-	N/A Shallow Muck
2008	-	M	-	-	-	N/A Shallow Muck
2009	-	M	-	-	-	N/A Shallow Muck
2010	-	M		-	-	N/A Shallow Muck
2011	-	-		-	-	N/A Shallow Muck

Point	Latitude	Longitude				
94	N44.8025154	W89.70870803				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	6	М	Pole Rake	0	0	No Weeds
2008		-	-	-	-	N/A No Reading
2009		-	-	-	-	N/A No Reading
2010		-	· -	<b>-</b> ·	-	N/A No Reading
2011	6	- T-	-	-	-	N/A No Reading

Point	Latitude	Longitude				
95	N44.80184024	W89.70871142				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007		M	Pole Rake	0	0	No Weeds
2008		-	-	-	-	N/A No Reading
2009		-	-	-	-	N/A No Reading
2010		-	-	-	-	N/A No Reading
2011	6	-	-	_	-	N/A No Reading

Point	Latitude	Longitude				
96	N44.80251298	W89.7077597				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007		М	Pole Rake	0	0	No Weeds
2008		-	- <b>-</b>	-	-	N/A No Reading
2009	+	-	-	-	-	N/A No Reading
2010		-	-	-	-	N/A No Reading
2011	6	-	-	-		N/A No Reading

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Invasive Species Point Intercept Survey Report						
Project/Lake: Mosinee/Cemetery Slough - (102 Sample points)						
Date: 2007 thru 2011						
WBIC: 1435700						
County: Marathon	EWM = Eurasian Water Milfoil					
Crew: RAL/CTM	CLP = Curly-leaf Pondweed					
Datum: WGS84	NWM = Northern Water Milfoil					

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- N/A = Not Accessible M = Muck W = Woody Debris S = Sand
- G = Gravel
- R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
- Rk = Rock

Point	Latitude	Longitude				
97	N44.80183782	W89.70776311				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	5	M	Pole Rake	0	0	No Weeds
2008	5	W	Pole Rake	0	0	No Weeds
2009	4	S/W	Pole Rake	0	0	No Weeds
2010	8	M/S	Pole Rake	0	0	No Weeds
2011	5	S	Pole Rake	0	0	No Weeds

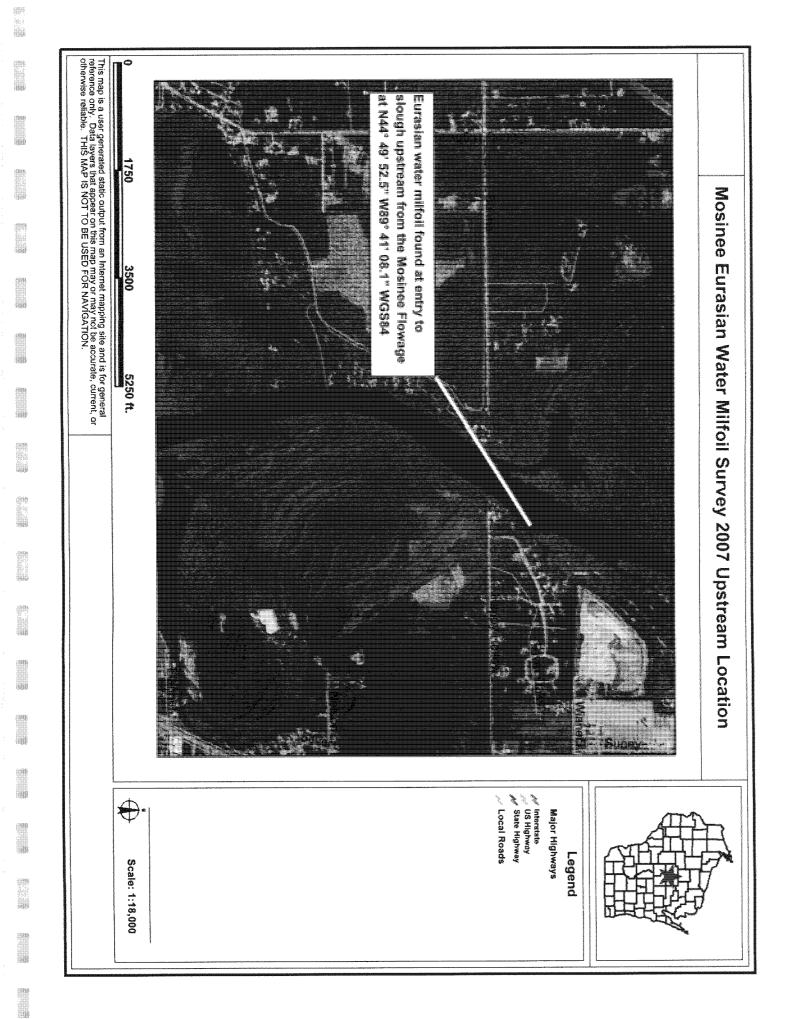
Point	Latitude					
98 Year	N44.8031857 Depth	W89.70680795 Sediment	Method	EWM	CLP	Comments
2007		S	Pole Rake	0	0	No Weeds
2008		S	Pole Rake	0	0	No Weeds
2009		S	Pole Rake	0	0	No Weeds
2010		S	Pole Rake	0	0	-
2011		S	Pole Rake	0	0	No Weeds

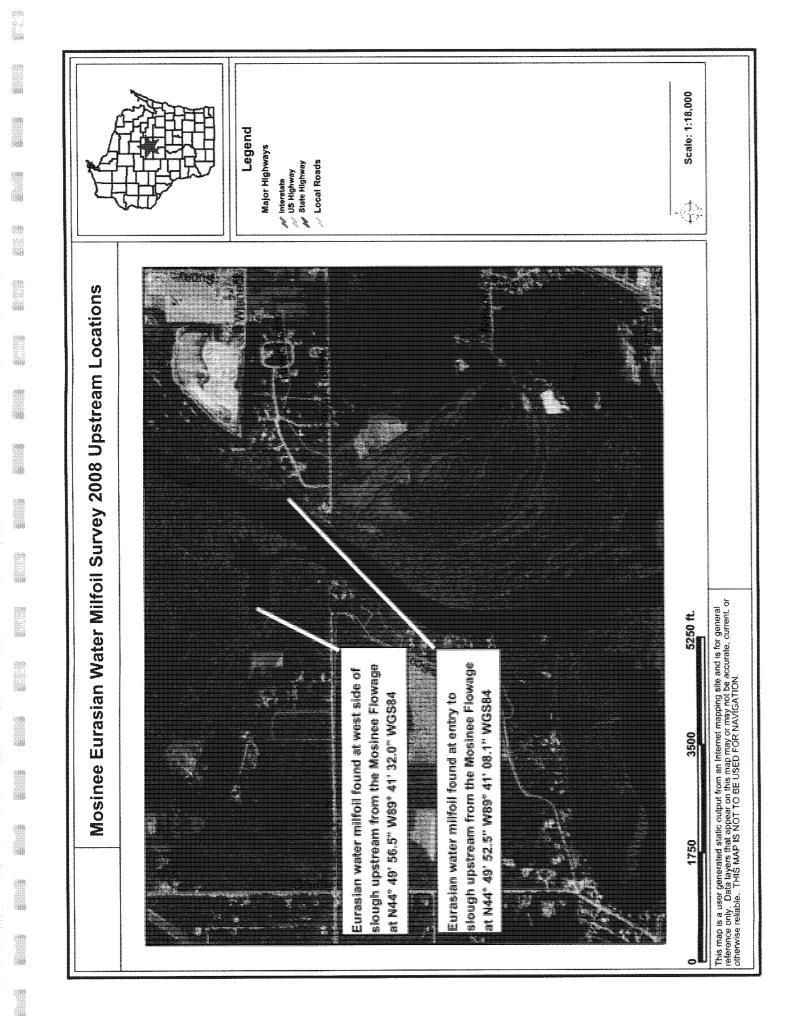
Point	Latitude	Longitude				
99	N44.80251054	W89.70681137				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	6	M	Pole Rake	0	0	No Weeds
2008	6	-	-	-	-	N/A No Reading
2009	6	-	-	-	-	N/A No Reading
2010	6	-	-	-	-	N/A No Reading
2011	6	-	-	-	-	N/A No Reading

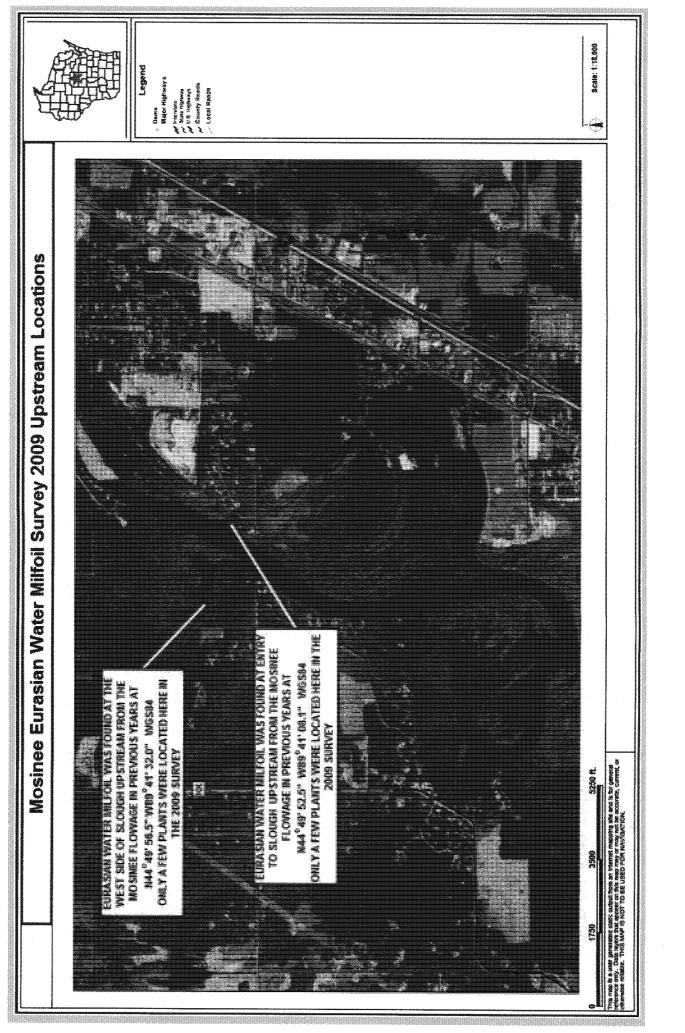
Point	Latitude	Longitude				
100	N44.80183539	W89.70681479				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	4	S	Pole Rake	0	0	No Weeds
2008	4	S,Ŵ	Pole Rake	0	0	No Weeds
2009	4	S/W	Pole Rake	0	0	No Weeds
2010	5	S/W	Pole Rake	0	0	No Weeds
2011	3	S	Pole Rake	0	0	No Weeds

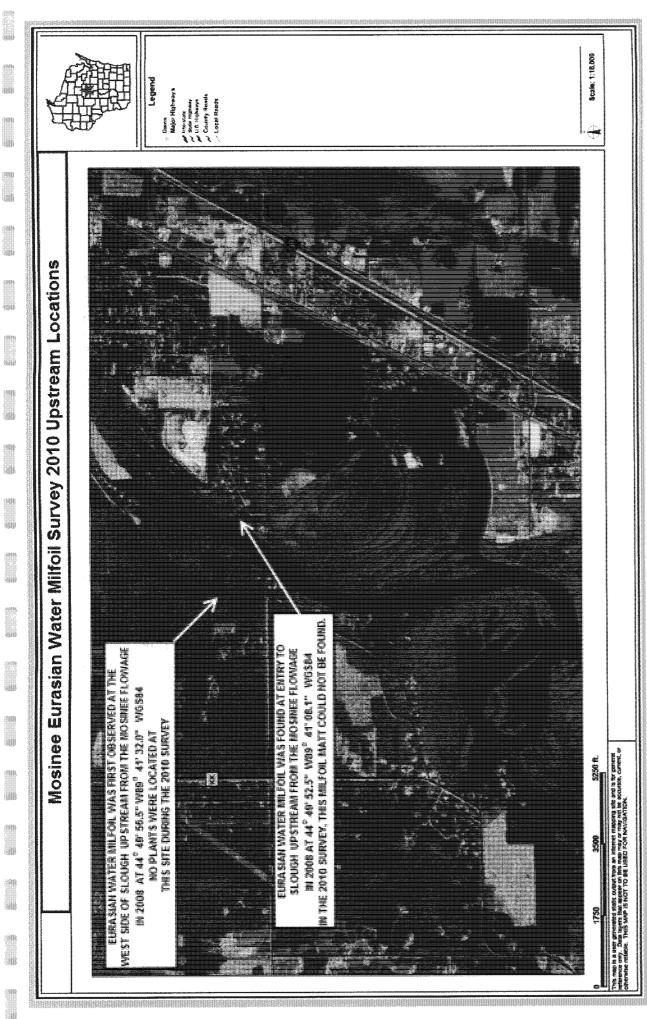
Point	Latitude	Longitude						
101	N44.80250811	W89.70586304						
Year	Depth	Sediment	Method	EWM	CLP	C	omments	
2007	5	W	Pole Rake	0	0	No Weeds		
2008	6	W	Pole Rake	0	0	No Weeds		
2009	the second s	W	Pole Rake	0	0	No Weeds	· · · · ·	
2010	7	W	Pole Rake	0	0	No Weeds		
2011		W	Pole Rake	0	0	No Weeds		

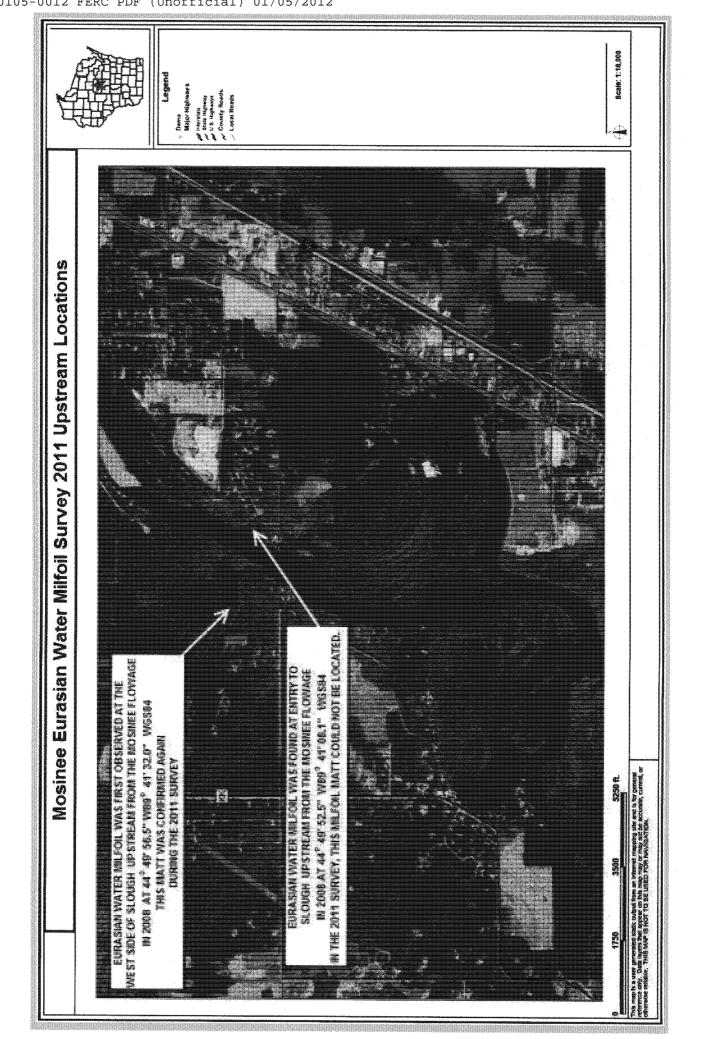
Point	Latitude	Longitude				
102	N44.80318082	W89.70491127				
Year	Depth	Sediment	Method	EWM	CLP	Comments
2007	1	G	Pole Rake	0	0	No Weeds
2008	1	S	Pole Rake	0	0	No Weeds
2009		S	Pole Rake	0	0	No Weeds
2010	and the second se	S	Pole Rake	0	0	No Weeds
2011		S	Pole Rake	0	0	No Weeds

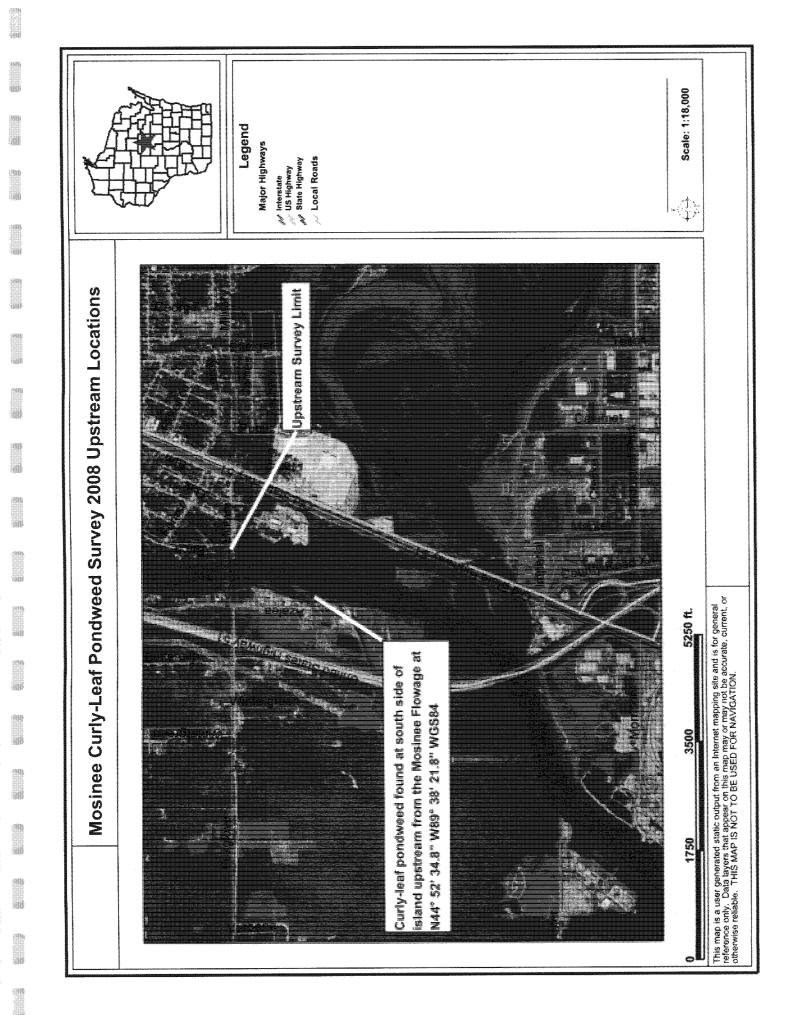


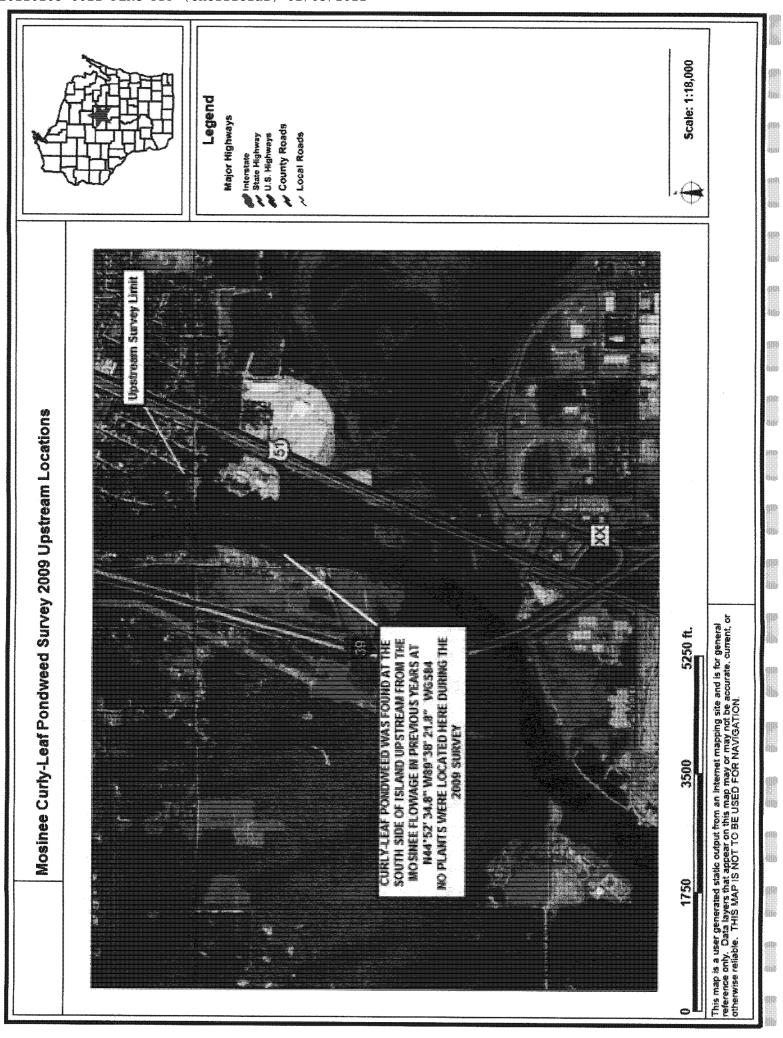


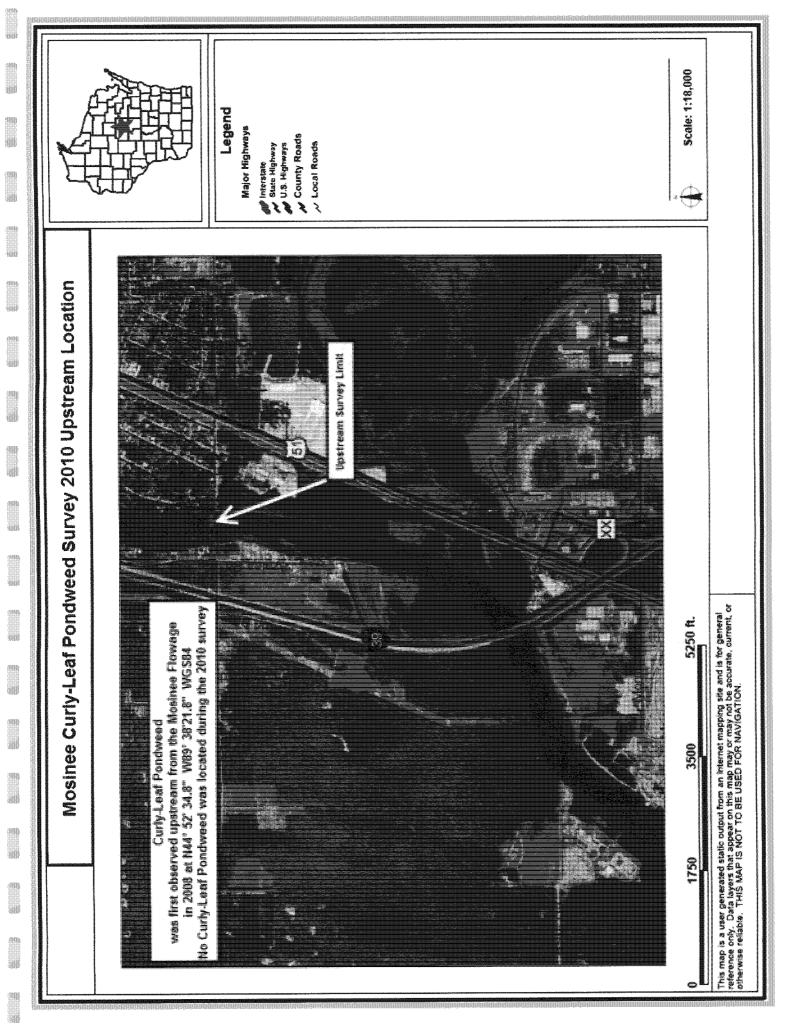


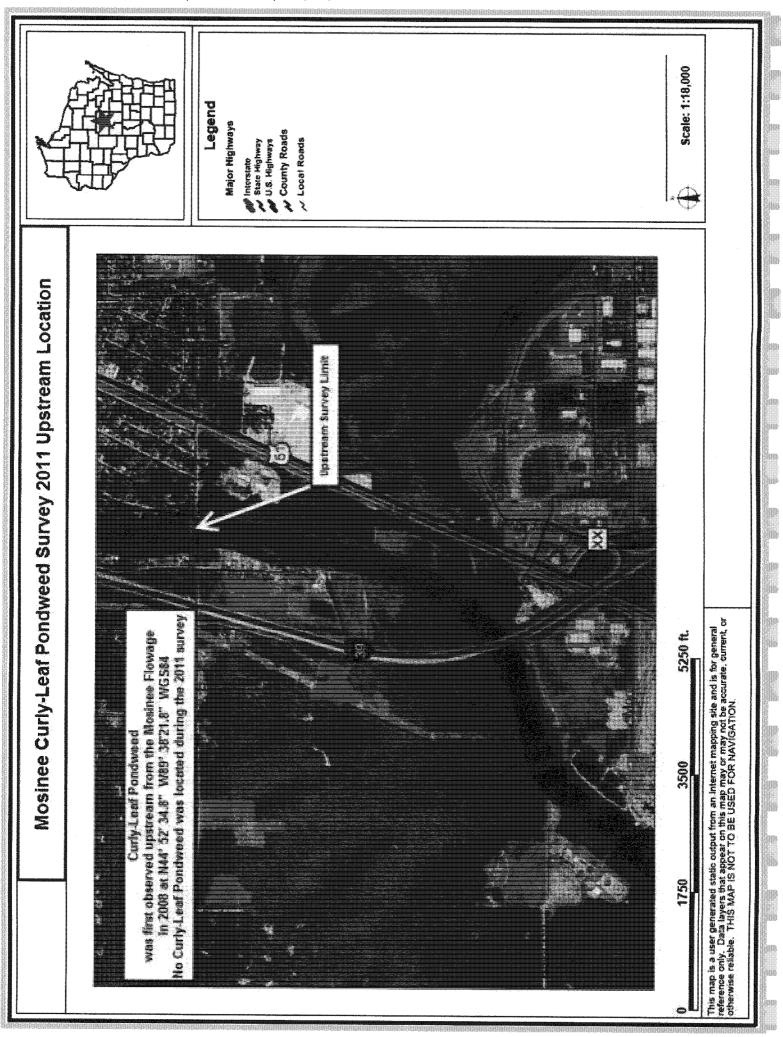












# APPENDIX C

Monitoring of Aquatic Macrophytes 2/13/06 (WIDNR)

# Baseline Monitoring of Aquatic Macrophytes 2/13/06

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Below we outline the protocol for statewide baseline sampling of aquatic macrophytes, with the primary goals of 1) comparing year-to-year data within a lake, and 2) comparing data among lakes. We describe a formal quantitative survey conducted at pre-determined sampling locations distributed evenly over the lake surface (point-intercept approach). We believe that this method, when combined with a boat survey to gather additional information on areas not sampled directly, will best characterize a lake's plant community. The chief benefit of adopting a statewide protocol is that variation in the sample set can be primarily attributed to actual differences in plant communities, instead of the confounding variables introduced by using different sampling techniques.

These guidelines are intended to work on most lakes. However, modifications may be required if a lake is uniquely shaped so that a uniform distribution of points isn't representative (long, skinny lake shape), or if obtaining rake samples is difficult due to substrate (rocky/cobble bottom).

Please note these are "baseline" recommendations. Additional monitoring activities may be warranted if the goal is to assess a specific management activity. For example, to gauge the success of chemical spot-treating stands of an exotic species in a relatively large lake, we recommend additional mapping of the beds within a season before and after treatment.

The baseline sampling described below should be conducted between early July and mid August. Although changes (such as biomass) in the plant community through this long sampling window might complicate data interpretation, in this survey we are mostly interested in species diversity and frequency, variables that should be fairly constant through the growing season. However, as described below, field workers are asked to assess rake fullness for all species and these ratings will likely vary with sample date. For many species, including Eurasian water-milfoil, plant biomass and density will probably increase as the season progresses. Narrow-leaved pondweeds begin to disappear by mid-August. Data for these species must be interpreted carefully with the sampling date in mind.

Curly-leaf pondweed (CLP) creates a special problem because it is often gone before the recommended sampling window between early July and mid-August. If you have any suspicion that CLP is present but not found when sampled, be sure to talk to APM staff to work out the best sampling scheme.

DNR personnel and groups using state money (e.g. planning, protection or aquatic invasive species grants) should follow this protocol.

## I. Field Equipment

**1. Required field equipment**: boat, handheld GPS unit with WAAS (Wide Area Augmentation System) capability (with site locations already loaded, Garmin 76 is a commonly used model

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within DNR), a lake map, waterproof field data sheets, pole-mounted rake, weighted rake on a rope, depth finder, storage bags for vouchered specimens, personal flotation device.

**2. Recommended equipment** (helpful, but not necessary): trolling motor, underwater video camera, plant ID references, hand lens, cooler for storing samples, digital camera to document shoreline features (e.g., deadfall, dock, house) for sample points near shore that will provide a visual complement to a dot on a map, waterproof paper tags and/or Sharpie for labeling bags with vouchers and unknown plant species.

## **II.** Point Intercept Sampling Method

#### 1. Description

We require the following point-intercept sampling protocol. In this method, a large number of sampling sites are distributed in a grid across the lake. There are several benefits to a grid sampling design. An evenly spaced distribution of points results in a good overview of the entire lake. It is easy to replicate, and it is easy to preserve and present the spatial information. Please contact Jen Hauxwell (Jennifer.Hauxwell@dnr.state.wi.us) with lake name, county, water body identification code (WBIC), and any other depth and plant information available so that she can establish sampling points for the lake.

The size of the littoral zone and shape of the lake determines the number of points and the grid resolution. You will receive an electronic file of sampling points to upload into a GPS unit (below). Once on the lake, you will go to each site and collect plants and data as described below.

## 2. Uploading sampling points to the GPS unit

The following step-by-step instructions were adapted from the WIDNR Garmin GPS Tool User Manual v. 8.2.5, available to DNR employees on the intranet.

<<u>file:///%5C%5Ccentral%5Cet\_apps%5CPROD%5CWiDNR\_Garmin%5Cstandalone\_garm</u> in%5CDEV\_Doc%5CWIDNR\_Garmin\_Standalone\_GPS\_Tool\_User\_Guide.pdf> This is a two step process. First you need to \*\_load\_\* the sample points you receive from Jen Hauxwell in a text file into the WIDNR Garmin GPS Tool, a computer file. Second you need to \*\_upload\_\* the points from your computer onto the GPS unit itself. For more information or troubleshooting help consult the User Manual.

Please note that GPS units vary in how many way points they can store. In the event that the number of sampling points exceeds your unit's storage capacity, simply split the text file containing the point information into multiple files. Upload successive files of points as needed. (For more information on Garmin GPS units, please see <u>http://www.garmin.com/</u> and navigate to consumer/outdoor/GPS mapping. Choose a unit and then click on "specifications" and, under navigation features, find the number of waypoints/icons.)

To upload points into your GPS unit from a text file (.txt) using the WIDNR Garmin GPS Tool you will need:

- **PC/laptop with WIDNR Garmin GPS Tool software**. If you do not have the software on your computer contact your administrator for installation.
- Waypoint .txt file in the same format as one created by the WI DNR Garmin GPS Tool. Text files received from DNR Research will be in the correct format.
- **PC Interface cable**. Comes standard with the GPS unit, or can be ordered at <a href="http://www.garmin.com/outdoor/products.html#mapping">http://www.garmin.com/outdoor/products.html#mapping</a>.
- GPS unit with external data port.

#### Step 1: SET "SIMULATING GPS" MODE

You must operate the Garmin GPS receiver in Simulating GPS mode while uploading/downloading data, so that the receiver is not trying to acquire satellite data during these activities. Check your GPS manual to determine how to do this. Instructions for the GPSMap 76 are given below.

- 1. Press and hold the [ON/OFF] button for two seconds to turn the GPS receiver on.
- 2. Several informational screens will display. Press the [PAGE] button until the first Acquiring Satellites screen appears.
- 3. Press the [MENU] button and select Start Simulator to see the Simulating GPS page.

## Step 2: SET SERIAL DATA FORMAT

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You must set the serial data format to GARMIN prior to transferring data. Failure to set the serial data format to GARMIN will cause a communication error between the WIDNR Garmin Tool and the GPS unit. Instructions for a GPSMap 76 are given below.

- 1. Press the [MENU] button twice, use the rocker key to select Setup, and then press [ENTER].
- 2. Use the rocker key to scroll left or right until the Interface tab is highlighted. Use the rocker key to scroll down to highlight the drop-down box and press [ENTER].
- 3. A menu will appear; select GARMIN and [ENTER]. Press [QUIT] twice to return to the main screen.

Step 3: PLUG IN THE PC INTERFACE CABLE

1. Plug the 9-pin serial connector into COM port #1 on your PC. If port #1 is in use, plug into the next available port, and note the port number. The WIDNR Garmin GPS Tool does not support connection through a USB port.

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2. Plug the round end of the cable into the external data/auxiliary power port on the back of the GPS receiver. Check your GPS manual if you do not know where the data port is located. The GPS receiver should be on and in "simulating GPS" mode.

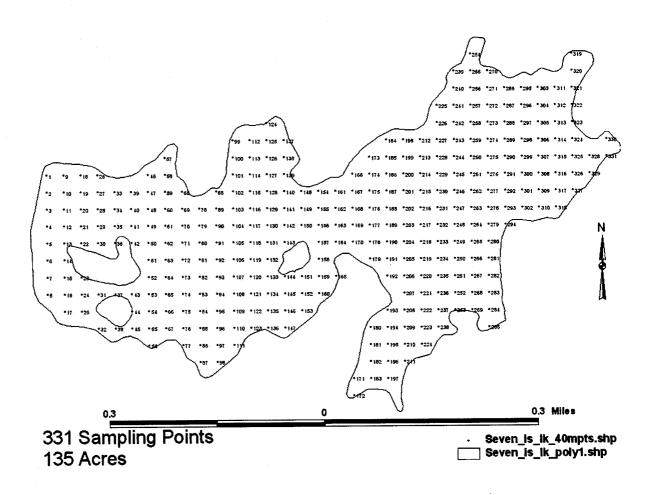
# <u>Step 4</u>: LOAD WAYPOINT DATA FROM A TEXT FILE TO THE WIDNR GARMIN GPS TOOL

- 1. Open the WIDNR Garmin GPS Tool file on computer. Select the WIDNR Garmin GPS Tool > File > Load > Waypoints From > GPS Text File option.
- 2. Enter/Select the path and name of the text file to load into the Open window. The GPS data will be loaded into the WIDNR Garmin GPS Tool. If you have trouble at this point, see the next section on troubleshooting. Otherwise, go on to section 4, Waypoints.
- 3. Troubleshooting. If you encounter problems during loading, a pop-up window will notify the user. Click OK.
  - a. If problems are encountered, check that the COM port is set correctly: GPS > Assign Port > select correct port #.
  - b. Also check that the baud rate matches that of the GPS unit: GPS > Assign Port
     > Baud Rate > select correct rate. A GPSMap 76 will transfer at 9600.
  - c. Check that the Serial Data Format is set to GARMIN (outlined in Step 2).
- 4. Waypoints. You can now view/edit waypoints by clicking the [Advanced] button on the WIDNR Garmin GPS Tool window.

## Step 5: UPLOAD WAYPOINT DATA TO THE GPS RECEIVER

- 1. Select the WIDNR Garmin GPS Tool > Waypoint > Upload option.
- 2. When complete, the number of uploaded points appears at the bottom of the Garmin GPS Tool window. A pop-up window also indicates the number of waypoints successfully uploaded. Click OK. The uploaded waypoints should now be visible on the GPS receiver's Waypoints display.
- 3. Below is an example of lake with waypoints.

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## **III.** Collecting and Recording Plant Data

**1. The rake sampler.** The rake is constructed of two rake heads (double rake head) welded together, measuring 13.8 inches (35 centimeters) long with 14 teeth on each side. The handle is 8 ft (2.4 meters) in length, and should include a telescoping extension that results in a total handle length (from tip of rake head to fully extended end) of 15 feet (4.6 meters). You will also need a second, weighted, double rake head on a rope (rake-on-a-rope) to sample deeper sites. See section on "rake construction" for more detail.

**2. Using the rake**. Collect one rake sample per site. In waters less than 12 feet, handle the rake using the pole. In deeper water, toss the rake-on-a-rope. In either case, try to drag the rake along the bottom for 2.5 feet (0.75 meters). The rake may dislodge plants that will float to the surface, especially short rosette species not easily caught in the rake times. Record these plants as present and estimate the rake fullness rating, just as you would plants brought up on the rake (see below).

## 3. Point-intercept sampling issues and procedures.

**a. Under-sampling near shore.** One problem with the grid system is that it may undersample very shallow sites where the vegetation is often quite different, even from sites just a bit deeper. To compensate for this problem, it is essential that you visit bays and shoreline areas missed by the grid. Record any species seen, especially emergent vegetation (rooted in water), and describe near-shore habitats on the Boat Survey sheet. These data will not be tallied in the ENTRY or STATS pages but should be recorded on an electronic version of the Boat Survey Sheet to accompany the other data.

**b.** Navigational error. When navigating to sites using a handheld GPS unit, remember that there will be inherent error in locating points, sometimes as great as 60 feet. In addition to that error, there remains the question of "How close to the point is close enough?" You will almost never be able to sample a point at 0 feet from the point. Total error from the GPS error and navigational error *combined* should not exceed half of the sampling resolution. To avoid this when navigating using the map screen, navigate at no more than an 80-foot zoom level and completely cover the point with the arrow. At this level, the locational arrow on the screen is ~8 m long. This means that to sample with acceptable accuracy, the arrow must completely cover the point you are trying to hit, with the arrow centered over the point. At coarser zoom – 120-foot and up, even if you are completely covering the point you still may be quite far from the point, just because the arrow is so large in comparison to the size of the points. You may need to navigate at a greater zoom resolution, but, as you approach the target point, switch to the 80-ft zoom resolution to assure you hit your point accurately.

**c. Hard-to-reach points**. It may be hard to get to some sampling sites, especially in certain bays, where the water is very shallow and the substrate is mucky. When possible and practical, try to get to the point by poling with an oar, but do not spend undue time poling to these shallow sites. Due to safety concerns, field workers should not get out and drag the boat through mucky sediment to reach a site. If the sampling site is shallow but the substrate is firm, you should walk to the site from shore. If you cannot access a site, leave the depth blank and record NA (no access) or "land" (if the site is on land) in the comments column. (Remember to transfer these comments to the ENTRY sheet).

**4. Filling out the Field Data sheet**. Print the FIELD DATA sheet from the Excel workbook APMstats123.xls for use in the field. We recommend printing the data sheet onto waterproof paper such as Xerox Never Tear Paper.

**a. Top portion.** Fill out the top portion of the Field sheet with lake name, WBIC, county, and date. Also, record all the observers and how many hours they worked on this lake.

**b. Site Number**. Each site location is defined by the lat/long data imported onto your GPS unit and each site should have one row of data.

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**c. Depth.** Measure and record the depth at each site sampled, regardless of whether vegetation is present. It is often easiest to mark the pole to establish depth for the shallower sites. However, a variety of options exist for taking depth measurements, including SONAR guns, depth finders that attach to the boat, or depth increments marked on the rope attached to the weighted rake sampler. If using a depth finder, please note that the accuracy decreases greatly in densely vegetated areas—depth will often be given to the top of the vegetation instead of to the lake bottom.

**d. Dominant sediment type**: Record sediment type (based on how the rake feels when in contact with the bottom) at each site where plants are sampled as: mucky (M), sandy (S), or rocky (R).

e. Pole vs. rope. Record whether the field team held the rake by the pole (P) or rope (R).

**f. Species information.** Note that the field data entry sheet does not include any species names, except for EWM (Eurasian water-milfoil) and CLP (curly-leaf pondweed). The sampling team must enter the species name the first time that species is encountered. Names will have to be entered again on successive field sheets (as they are encountered). The use of standard abbreviations can greatly shorten this process.

For all species, record the rake fullness rating (1- few, 2- moderate, 3-abundant, see illustration following this text) on the field data entry sheet at each sampling point where it is found. Record rake fullness for filamentous algae as well. Record the rake fullness rating for plants dislodged by, but not collected on the rake (please see "Under-sampling near shore", above). While at a site, look for any other plants (not already recorded) at that site within 6 ft (2m) of the boat. Record these species as a "visual" (V) on the data sheet. These species will be included in total number of species seen but will not be included in summary statistics. Account for plant parts that dangle or trail from the rake times as if they were fully wrapped around the rake head.

**5. Filling out the Boat Survey Data sheet**. Often there will be localized occurrences of certain species (e.g., floating-leaf or emergent species) that are obvious to the viewer but could possibly be missed by the point-intercept grid. As discussed above in "Under-sampling near shore", you should examine shoreline areas that are out of the grid. While you need not make a separate trip around the entire lake, do visit areas that may be under-sampled and record the information (including the closest sampling point) on the Boat Survey (see APMstats123.xls) and on a lake map. Be sure to create an electronic version of the Boat Survey from the field notes.

6. If no plants are found. If no plants are found at a sampling site while approaching a deep section in the lake, record the depth but do not record any species information. Sample one more (deeper) site beyond that point to ensure that you have correctly identified the maximum plant depth. This should be done for each set of points surrounding the deep portion of the lake. Along any N-S or E-W transect, sampling should continue for at least 2 points beyond the last site with plants. Some sites may not have any plants, even if the site is shallower than the maximum plant depth. For these sites, fill out the data sheet as usual (with no species identified). These sites will be included as sites as deep as, or shallower than, the maximum plant depth.

**7. Collect voucher samples**. Collect 2 samples of each species found on each lake. These samples must be pressed and dried according to the protocol in Appendix F. Send one prepared specimen to the local DNR office (who will pass them on to a University herbarium). Keep one specimen for the lake group as a reference for future plant identification. If the field team is unable to identify a plant, please try to get fresh plants to the local DNR lake management specialist as it is much easier to identify fresh plants than pressed plants. Be sure to let them know you are sending plants so that they can be processed promptly.

#### IV. Entering data on the spreadsheets and summary data

The APMstats123.xls Excel workbook has 5 spreadsheets:

**a. READ ME**, with a summary of all the spreadsheets included in the worksheet. The date records the most recent version.

b. Field Data, discussed above.

**c. ENTRY**, a data entry sheet for transferring field data to the computer spread sheet. You must transfer all of the information collected in the field to the ENTRY sheet. You should be able to copy the coordinates for the sampling points from the text file you uploaded onto the GPS unit and paste these into the entry sheet. There is a column for comments on the ENTRY sheet.

**d. STATS,** an automated statistics page that provides a summary of the plant data. The summary statistics of the plant survey will automatically appear in the STATS sheet of APMstats123.xls after data are entered in ENTRY.

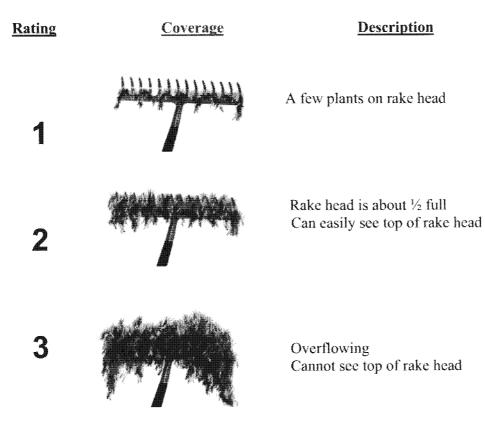
e. Boat Survey, discussed above.

#### V. Where to Send Data

Send electronic copies of the ENTRY, STATS and Boat Survey to Jen Hauxwell (Jennifer.Hauxwell@dnr.state.wi.us).

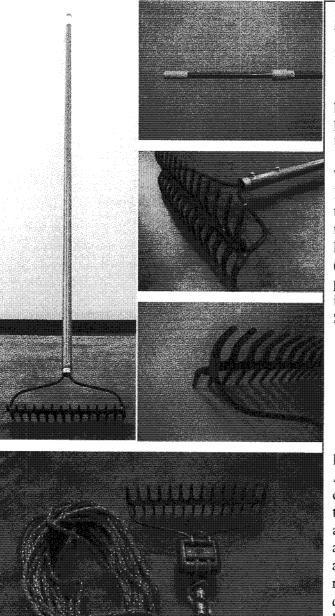
# **Rake Fullness Ratings**

Rake fullness ratings are given from 1-3 for each species. Conditions of the ratings are described below:



#### **Rake Construction**

Pictures of a rake are shown below, with potential vendors of the components indicated. (These are not endorsements of specific vendors.)



#### **Pole Sampler**

The rake sampler is made from two rake heads welded together, measuring 13.8 inches (35 centimeters) long with 14 teeth on each side. This example purchased from Menards with wooden poles attached and subsequently removed).

The handle is <u>8</u> ft (2.4 meters) in length, and should include a telescoping extension that results in a total handle length (from tip of rake head to fully extended end) of 15 feet (4.6 meters). This example was purchased from a pool supply company in Madison, WI (Bachmann Pool & Spas).

#### **Rope Sampler**

A similar rake head should be constructed for the rope sampler. At the point where the pole would be attached, tie on a rope or anchor line of at least 40 ft in length. If desired, attach a 5 lb weight to the top of the rake (away from the tines) or thread it on the rake rope. This example has a length of steel tubing welded to the rake head to serve as a handle through which is strung ~45 ft of climbing rope.

# APPENDIX D

Reservoir Elevations During Survey Dates

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Mosinee Hydroelectric Project impoundment operating levels for the dates of the 2007 invasive species survey (7/16/07 – 7/24/07 and 8/9/07) as confirmed by operation personnel were normal at 1135.75 feet MSL  $\pm$  0.3 feet.\*

\* The Mosinee Hydroelectric Project impoundment operating levels exhibited on this page in the 2007 report and filed with the Federal Energy Regulatory Commission were incorrect. The report should have stated the levels as confirmed by operation personnel to be normal at 1137.75 feet MSL.

Mosinee Hydroelectric Project impoundment operating levels for the dates of the 2008 invasive species survey (7/14/08 - 7/2/08) as confirmed by operation personnel were normal at 1135.75 feet MSL ± 0.3 feet.\*

\* The Mosinee Hydroelectric Project impoundment operating levels exhibited on this page in the 2008 report and filed with the Federal Energy Regulatory Commission were incorrect. The report should have stated the levels as confirmed by operation personnel to be normal at 1137.75 feet MSL.

. Lize Mosinee Hydroelectric Project impoundment operating levels for the dates of the 2009 invasive species survey (7/14/09 – 7/17/09, 7/20/09, 7/21/09, and 8/3/09) as confirmed by operation personnel were normal at 1137.75 feet MSL  $\pm$  0.3 feet.

Mosinee Hydroelectric Project impoundment operating levels\* for the dates of the 2010 invasive species survey (7/12/10 - 7/17/10) as confirmed by operation personnel were as follows:

**Reservoir Elevations** 

7/12/10 - 1138.55' MSL 7/13/10 - 1138.30' MSL 7/14/10 - 1137.85' MSL 7/15/10 - 1139.40' MSL 7/16/10 - 1139.30' MSL 7/17/10 - 1139.20' MSL

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\*Unusually high water levels were attributed to abnormal rainfall events during the survey period. The normal operating levels at the Mosinee Hydroelectric Project as confirmed by operation personnel is 1137.75 feet MSL  $\pm$  0.3 feet.

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Mosinee Hydroelectric Project impoundment operating levels for the dates of the 2011 invasive species survey (7/11/11 - 7/16/11) as confirmed by operation personnel were as follows:

## **Reservoir Elevations**

7/11/11 – 1138.00' MSL 7/12/11 – 1137.55' MSL 7/13/11 – 1138.15' MSL 7/14/11 – 1137.65' MSL 7/15/11 – 1137.60' MSL 7/16/11 – 1137.70' MSL

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Document Content(s)
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