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ORIGINAL

January 15, 2013

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 Survey Report - 2012

Dear Secretary:

In accordance with the monitoring plan for invasive species, Wausau Paper has completed a sixth year of surveillance. Enclosed please find an original and eight (8) copies of a report documenting the results of the current year of the survey.

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 survey and report. As indicated in the request letter, their comments were due December 28, 2012. 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,

James N Pauls 1/15/13

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

cc Mr. John Zygai, FERC

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VIA UPS DELIVERY

November 28, 2012

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

Ms. Cheryl Laatsch
Wisconsin Dept. of Natural Resources
101 S Webster Street
Madison WI 53703

Mr. Scott Provost
Wisconsin Dept. of Natural Resources
473 Griffith Avenue
Wisconsin Rapids WI 54494

RE: Mosinee Hydroelectric Project, FERC Project No. 2207, Invasive Species Survey 2012

Dear Field Supervisor, Ms. Laatsch, and Mr. Provost:

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 Wausau's sixth annual survey. Please review this survey and provide us with comments on or before December 28, 2012.

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

Sincerely,

James N. Pauls 11/28/12

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

enc.

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GALERUCELLA BEETLE POPULATION COMPARISON 2012
FOR THE
MOSINEE HYDROELECTRIC PROJECT
MARATHON COUNTY, WISCONSIN
FERC Project No. 2207

Prepared for
Wausau Paper Corporation

August 2012

Prepared By
Rick Loeffler
Neshkoro, Wisconsin 54960

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1.0 Summary

On July 24, 2012 a survey was performed within the project boundaries of the Wausau Papers Hydroelectric Project located in Marathon County Wisconsin to determine if Galerucella Beetle (Cella) populations were rebounding after a sudden reduction in numbers was noted in the 2011 Invasive Species Monitoring Survey. This reduction in beetle numbers was also discussed in a 5-Year Comprehensive Report for the project covering the years 2007 - 2011.

Surveys for Purple Loosestrife (*Lythrum salicaria*), Eurasian Watermilfoil (*Myriophyllum spicatum*), and Curly Leaf Pondweed (*Potamogeton crispus*) were conducted annually at the project from 2007 through 2011. The purpose of the annual surveys was to track and monitor the three invasive species and report the findings to the appropriate agencies. During the annual surveys, observations were recorded regarding Cella beetle presences on stands of purple loosestrife (PL) throughout the project. The amount of damage created by beetles and beetle larva was recorded, as well as observations of un-hatched beetle egg clusters found in stands of PL. It should be noted that tracking beetles was not a requirement of the annual surveys. Instead, the survey crew chose to do so in order to help determine their effectiveness of controlling PL within the survey limits.

The Cella Beetle population was gradually trending upward from 2007, 2008, and 2009, and colonies were observed in nearly all areas of the project by 2010. However, during the 2011 survey a sudden decline in populations was noted. Areas where PL plants were once either stunted or the foliage was completely brown were now flourishing and had little or no sign of beetle feeding. The most likely cause of the reduction in numbers of beetles appears to be attributed to unusually high water events at the Mosinee Project that occurred in the fall of 2010 and the spring of 2011.

A 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 stream flow of 52,700 cfs (daily mean streamflow of 45,600 cfs) was recorded. This was the highest flow recorded at the gage since 1945. On April 11, 2011, the Rothschild gage data showed an annual peak stream flow recording of 48,000 cfs (daily mean streamflow of 44,900 cfs). Both of these events would have happened when the majority of Cella may have been hibernating in the soils near their host PL plants. It is probable that the two unusually high water events inundated areas where Cella were hibernating and destroyed the colonies. Since Cella presence was still detected throughout the survey area in 2011, it was expected that their numbers would increase once again, provided river flows remained normal.

In 2011, Cella beetle 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 initial survey in 2007. With the Cella

populations at a low, PL sightings and plant vigor increased in 2011 and appeared to have the highest densities since surveys began in 2007.

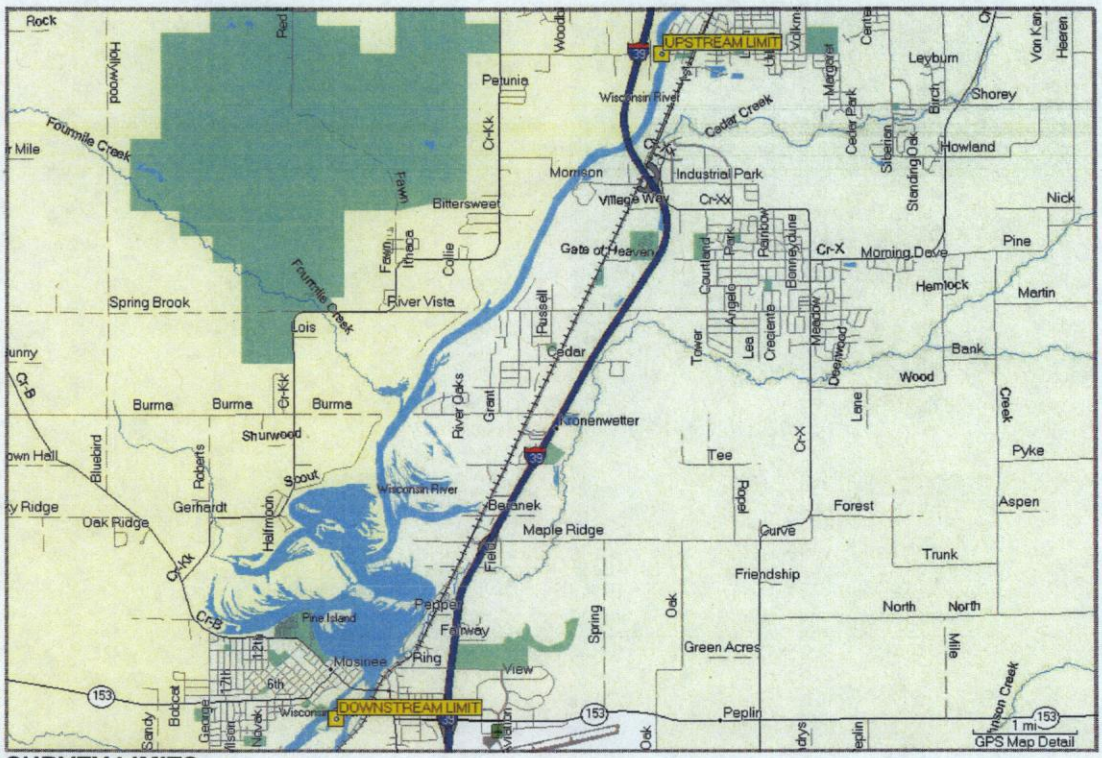
Results of the 2012 survey indicate that Cella beetles are still well distributed throughout the survey area, and their populations have increased when compared with observations in 2011. Although the scope of this survey was not to determine PL densities, survey notes indicate that PL sightings and vigor appeared to be about the same in 2012 as they were in 2011 at the sites that were sampled for Cella beetles. It is most likely that beetle populations will continue to increase in the coming years provided there are no incidents that are catastrophic to Cella development such as the high water events of late 2010 and early 2011.

2.0 Methods

After completing 5 consecutive years of invasive species monitoring, a comprehensive survey report was compiled to analyze all data gathered from the project. The reduction in Galerucella beetle populations was discussed in this report. Recommendations were made to conduct a survey 2012 to determine if Cella beetles populations were rebounding to 2010 levels. Below is the excerpt from the Mosinee Invasive Species 5-Year Comprehensive Report of 2011 explaining the detail of the 2012 study;

> *"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".*

The upstream and downstream survey limits used in the Beetle Population Comparison Survey are shown on the following map labeled Survey Limits.



SURVEY LIMITS

The following list shows the dates in which the annual Invasive Species Surveys were performed at the Mosinee Hydroelectric Project. This list also includes the date of the 2012 Beetle Population Comparison Survey:

[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
7/24/2012 – Beetle Population Comparison Survey

2.1 Galerucella Beetle Survey

The Galerucella Beetle Population Comparison Survey conducted in 2012 was accomplished by two people inspecting predetermined locations of known beetle activity throughout the Mosinee Project. These locations have been monitored for the previous five years and have a history of beetle damage to purple loosestrife plants. Most survey sites were observed from a boat while other areas were surveyed from land where it was not practical or possible to navigate by water. In a few cases, PL plants could not be found at a predetermined location or it could not be

reached by boat due to the lower than normal reservoir elevation. When this situation occurred, a secondary nearby location with some known history of beetle activity was used.

Originally, fifteen inspection sites were chosen throughout the project from the area above the I-39 Interstate Bridge (northern most project boundary) to the tailrace and bypass reach areas below the dam and powerhouse (southern most project boundary). Two more sites were added while in the field in order to enhance the data collected. The survey crew incorporated sites from throughout the project boundary to give a more accurate account of the beetle population distribution as it was observed in 2012.

Observations were recorded at each survey site documenting beetle damage and presence. Photos were taken at a number of sites. A spreadsheet and maps containing survey results and site locations are included in Appendix A of this report.

During the 5 years of monitoring at the project, a record of damage created by beetles or beetle larva was kept and included in the survey results of the annual reports. A rating system of None, Light (or Minor), Medium, and Heavy was used by the survey crew to differentiate levels of damage. This same rating system was used during the 2012 survey. An explanation of each level of damage is provided below.

None – There were no holes or "window-paning" 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-paning" 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-paning" 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-paning" 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.

2.2 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 Cella Beetle Population Comparison

During the baseline meandered survey for PL in 2007, Cella beetles were discovered to be present at quite a number of PL occurrences within the Mosinee Project. 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. 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. However, Cella beetles and beetle damage was found to be much less in 2011 than in previous years.

The reduction of the Cella beetle population 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 plants. 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 may die.

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 (daily mean streamflow of 45,600 cfs) was recorded. This was the highest flow recorded at the gage since 1945. On April 11, 2011, the Rothschild gage data shows an annual peak streamflow recording of 48,000 cfs (daily mean streamflow of 44,900 cfs). The following table shows the dates of the ten highest annual peak streamflow records since 1945. A daily mean streamflow graph has been included in Appendix B of this survey to help illustrate high streamflow relationships at the project for the past 10 years.

Date	Annual Peak Streamflow (cfs)
9/24/2010	52700
4/12/1965	49200
3/31/1967	49200
6/14/1990	48300
4/11/2011	48000
9/27/1959	47000
9/28/1986	46700
6/21/1993	44400
3/31/1976	43800
5/7/1960	42900

USGS gage 5398000 ten highest annual peak streamflow records since 1945

As discussed earlier in this report a beetle population survey was recommended in the 5-Year Comprehensive Report for the Mosinee Project. The survey was to be conducted in 2012 to evaluate PL plant damage in order to determine if Cella populations are recovering as expected. The survey was held in late July, as this would be an optimum time of year to observe beetles and damage to PL plants created by beetles or larva.

The 2012 survey began at River Park in Mosinee, WI on July 24th, with warm and sunny weather and minimal winds. Fifteen sites with a history of beetle activity were chosen prior to launching. Two more sites were added while in the field in order to enhance the data collected. Sites were visited that day at random, not by their numerical listing.

Of the seventeen sites inspected during the survey, only one site (PL194)

had no indication of any beetles or beetle damage. This site was chosen as a secondary site while in the field, because the primary site in this area was unapproachable. The rest of the sites had some indication of beetle damage.

Of the seventeen sites, twelve showed an increase in beetle damage from 2011 to 2012, two showed the same amount of damage, one showed a decrease in damage, and two had insufficient information to determine any difference (these two points, PL194 and PL193, were chosen as secondary points while in the field and were not tracked for beetle damage in prior years).

Results of the 2012 survey indicate that Cella beetles are still well distributed throughout the survey area, and their populations have increased when compared with observations from 2011. Galerucella Beetles, beetle damage, larva damage, and un-hatched clusters of Cella beetle eggs were found on purple loosestrife stands throughout the project boundary and appear to be recovering as expected.

Beetles were confirmed at seven of the seventeen sites inspected and ten of the seventeen sites were found to have un-hatched beetle egg clusters attached to leaves of PL plants. Although window-paning damage from beetle larva was common, no beetle larvae were actually found.

Galerucella Beetles on Purple Loosestrife – 2012 **(MOSN PL100)**

Beetle Feeding on Purple Loosestrife at Mosinee Flowage – 2012 (MOSN PL100)

Purple Loosestrife growing on an island in Half Moon Lake – 2012 (MOSN PL002)

Galerucella Beetles Mating on PL Plant at Mosinee Flowage – 2012 (MOSN PL002)

Galerucella Beetle Egg Cluster on Purple Loosestrife at Mosinee Flowage – 2012 (MOSN PL002)

3.2 Eurasian Water Milfoil and Curly-leaf Pondweed

During the 5 years of invasive species monitoring at the Mosinee Project (2007 – 2011), data has been collected on Eurasian Watermilfoil (EWM) and Curly-leaf Pondweed (CLP) distribution throughout the project. Point intercept surveys have been performed annually along with mapping of infested areas.

The 5 years of annual reports have shown that EWM has been found growing in all waters within the survey limits except the power canal, bypass reach, tailrace, and Half-Moon Lake. Survey results indicate 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.

Survey results of the last 5 years also indicate 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.

The scope of the 2012 study was not to monitor invasive species, but rather to observe Cella beetle populations. However, during the survey the crew passed through areas where some of the heaviest occurrences of EWM and CLP have been documented in the past 5 years.

The crew observed no CLP during travels through project waters in 2012.

EWM was observed in a few locations within the project boundaries in 2012. Where EWM was observed, only sparse individual plants were scattered about and at no time were large mats of EWM visible. At no time during the 2012 study did CLP or EWM create an impediment to navigating the survey boat.

It should be noted that a point intercept study was not completed in 2012 and the above statement was based on observations made by the survey crew during travels through project waters where heavy occurrences of CLP and EWM had been documented in previous years.

4.0 Recommendations

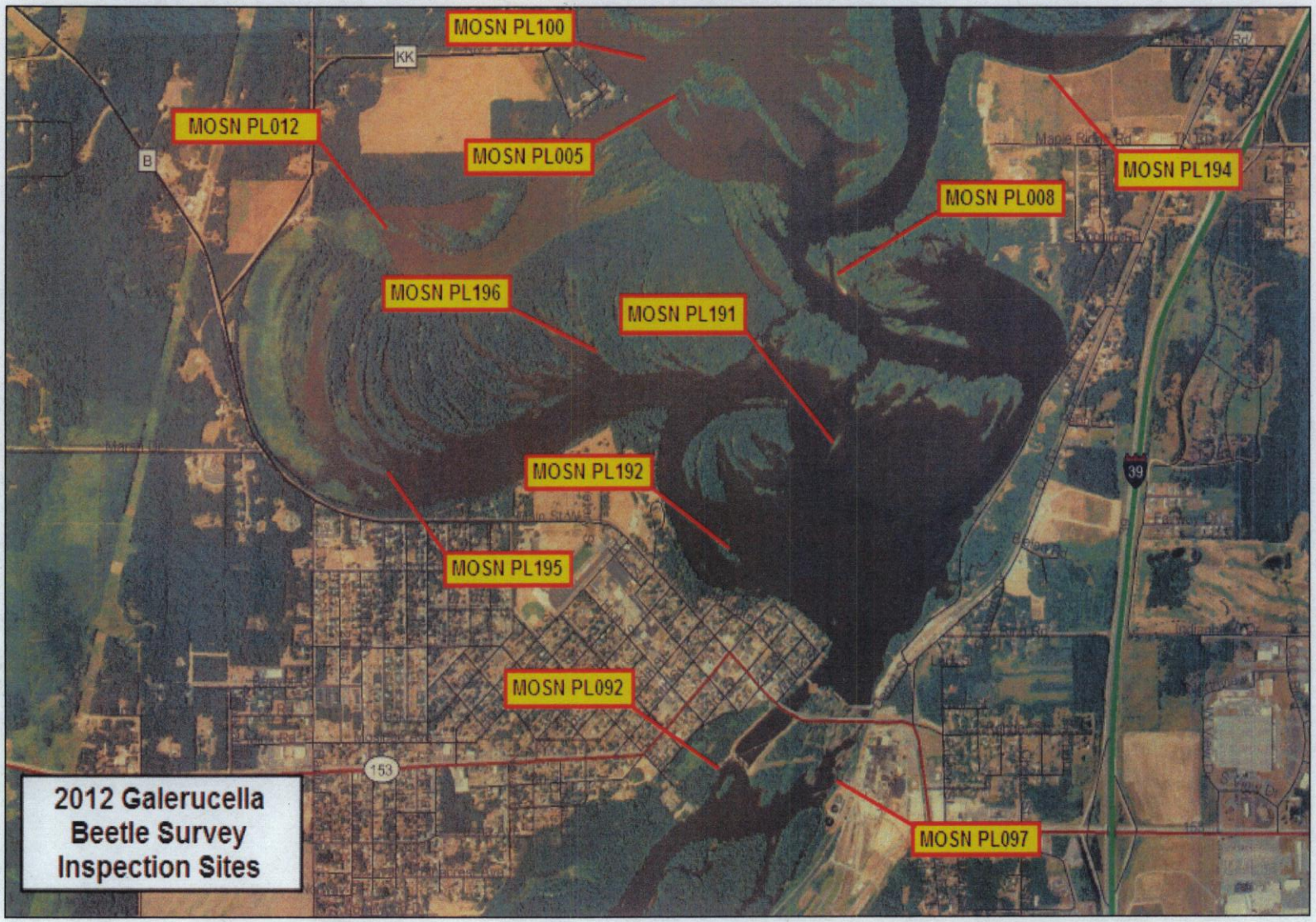
Results of the 2012 Galerucella Beetle Population Comparison indicate that beetle numbers have increased since 2011. It should not be necessary for any additional Cella beetle surveys be performed before the next invasive plant

survey. It is recommended that notes on Cella damage continue to be kept during subsequent invasive plant surveys.

APPENDIX A

Beetle Population Survey Results

Mosinee 2012 Galerucella Beetle Population Comparison - Map 01



Legend

- Dams
- Major Highways
- Interstate
- State Highway
- U.S. Highways
- County Roads
- Local Roads

Scale: 1:18,000

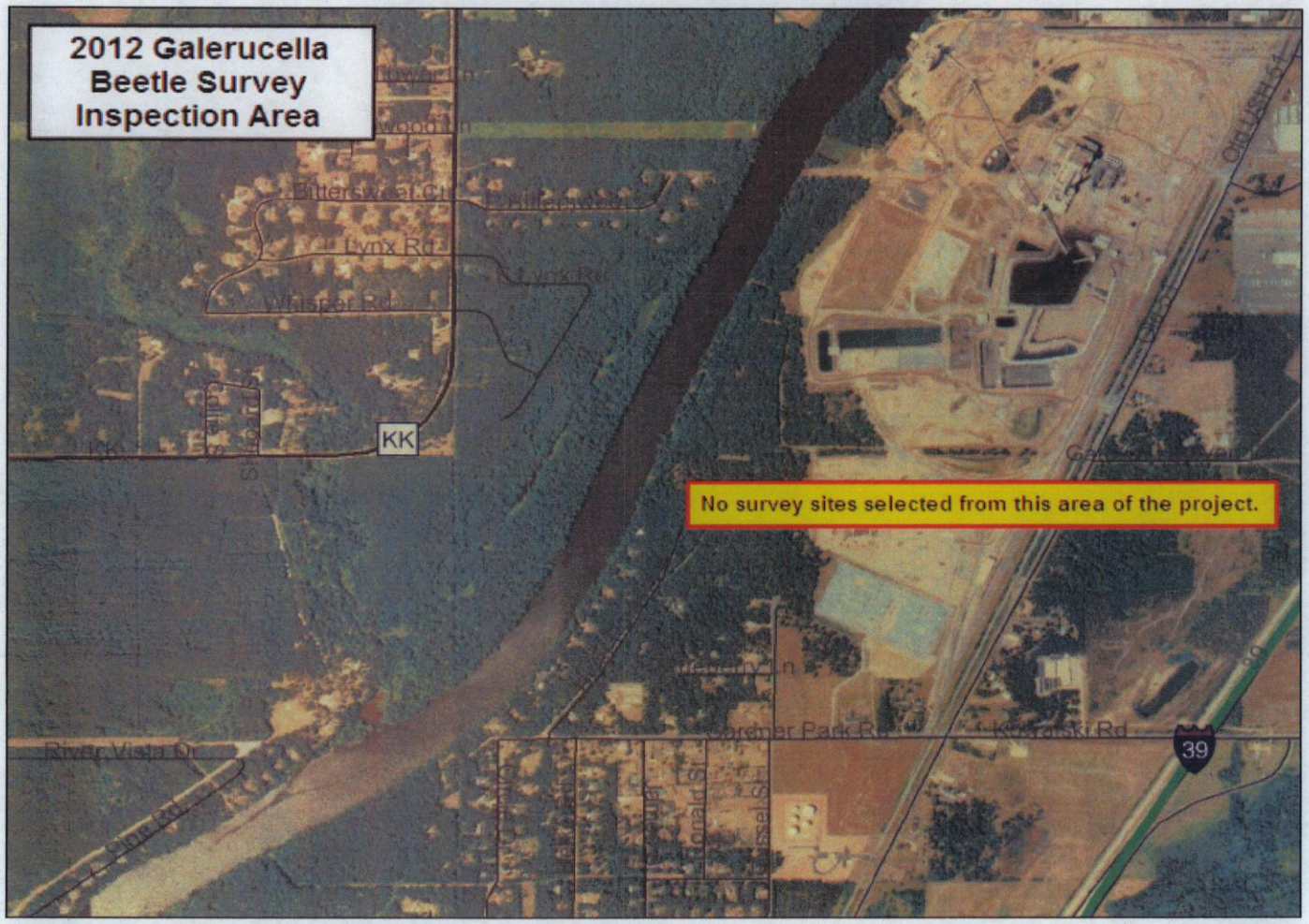
Mosinee 2012 Galerucella Beetle Population Comparison - Map 02

Legend

- Dams
- Major Highways
- Interstate
- State Highway
- U.S. Highways
- County Roads
- Local Roads

Scale: 1:18,000

Mosinee 2012 Galerucella Beetle Population Comparison - Map 03



Legend

Major Highways

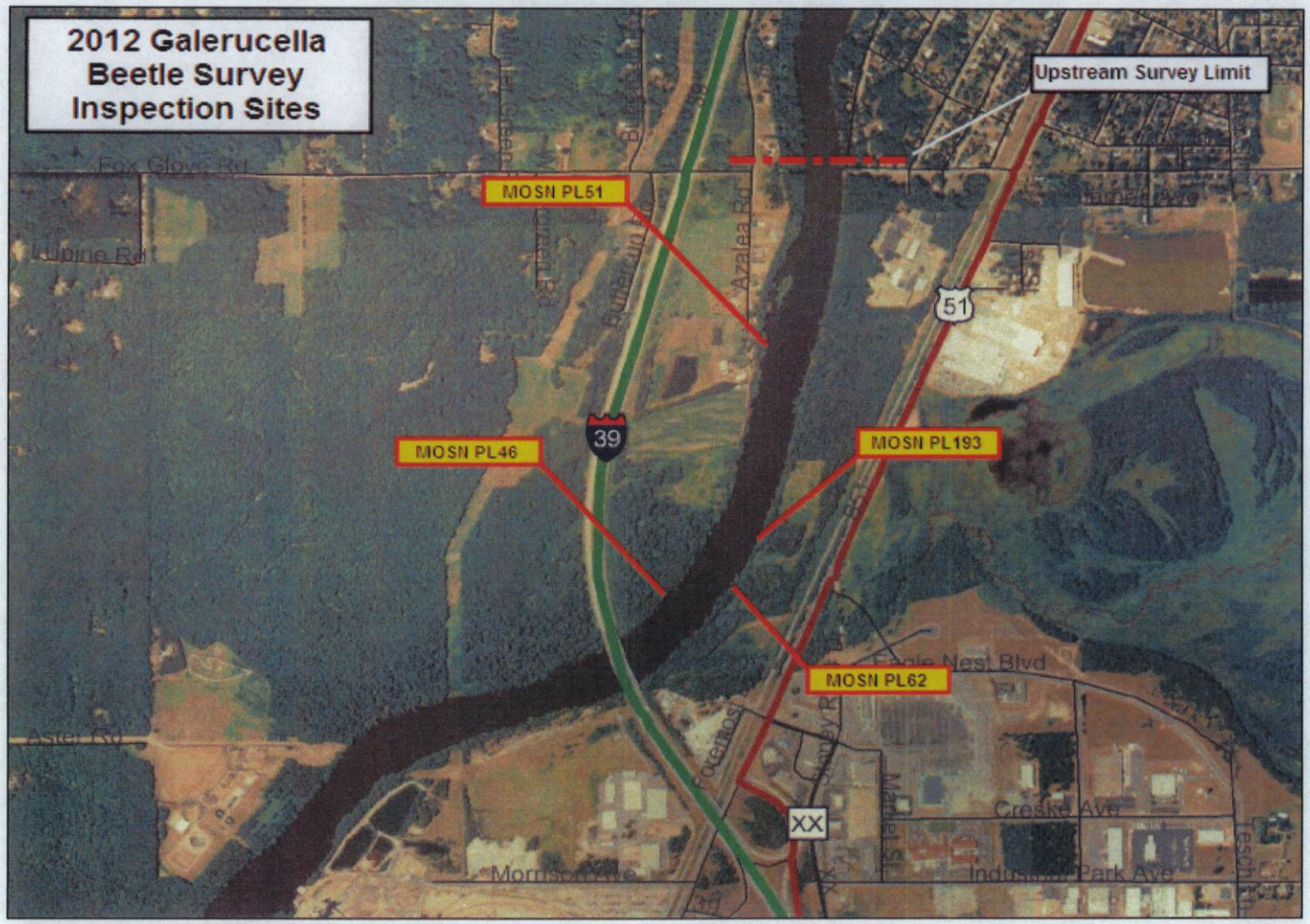
- Interstate
- State Highway
- U.S. Highways
- County Roads
- Local Roads

0 1750 3500 5250 ft.

Scale: 1:18,000

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Mosinee 2012 Galerucella Beetle Population Comparison - Map 04



Legend

Major Highways

- Interstate
- State Highway
- U.S. Highways
- County Roads
- Local Roads

0 1750 3500 5250 ft.

Scale: 1:18,000

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Galerucella Beetle Population Comparison 2012

Project/Lakes: Mosinee/Mosinee Flowage, Half-moon Lake, and Cemetery Slough

Date: July 24, 2012

WBIC: 1334900, 1435800, and 1435700

County: Marathon

Crew: RAL/CTM

Datum: WGS84

Point	Latitude	Longitude
MOSN PL002	N44° 49.096'	W89° 41.878'

Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	Comments
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	
2012	4' - 7'	>50 Plants	Light/Med.	N/A	N/A	Beetles confirmed, Unhatched egg clusters confirmed, Larva unconfirmed, Photos , Heavy plant growth.

Point	Latitude	Longitude
MOSN PL005	N44° 48.800'	W89° 42.362'

Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	Comments
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	
2012	1' - 2'	<10 Plants	Light/Medium	N/A	N/A	Beetles confirmed, Unhatched egg clusters confirmed, Larva unconfirmed, Photos.

Point	Latitude	Longitude
MOSN PL008	N44° 48.438'	W89° 41.802'

Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	Comments
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	
2012	1' - 4'	>50 Plants	Light/Medium	N/A	N/A	Beetles confirmed, Unhatched egg clusters confirmed, Larva unconfirmed, Some window-paning visible, Very heavy plant growth.

Point	Latitude	Longitude
MOSN PL012	N44° 48.496'	W89° 43.352'

Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	Comments
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	
2012	3' - 7'	>1000 Plants	Light/None	N/A	N/A	Beetles unconfirmed, Unhatched egg clusters unconfirmed, Larva unconfirmed, Very heavy plant growth.

Point	Latitude	Longitude
MOSN PL046	N44° 52.156'	W89° 38.591'

Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	Comments
2007	4' - 6'	5 Plants	None	N/A	N/A	
2008	4' - 6'	5 Plants	None	N/A	N/A	
2009	4' - 6'	~15 - 25 Plants	Light/Heavy	N/A	PL045 and PL046 were grouped as a continuous site in 2009.	
2010	3' - 4'	4 Plants	None	N/A	PL045 and PL046 were grouped as a continuous site in 2009.	
2011	1' - 3'	38 Plants	None	N/A	PL045 and PL046 were grouped as a continuous site in 2009.	
2012	3' - 7'	>30 Plants	Light/Medium	N/A	PL045 and PL046 were grouped as a continuous site in 2009.	Beetles confirmed, Unhatched egg clusters confirmed, Larva unconfirmed, Very heavy plant growth.

Point	Latitude	Longitude
MOSN PL051	N44° 52.506'	W89° 38.401'

Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	Comments
2007	3' - 5'	4 Plants	None	N/A	N/A	
2008	4' - 5'	2 Plants	None	N/A	N/A	
2009	2' - 5'	50 - 100 Plants	Heavy	N/A	PL049, PL050, PL051, PL052,PL053, PL054, PL055, and PL056 were grouped as a continuous site.	
2010	2' - 5'	5 Plants	None	N/A	PL049, PL050, PL051, PL052,PL053, PL054, PL055, and PL056 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.	
2012	3' - 6'	15 Plants	Light/Medium		PL049, PL050, PL051, PL052,PL053, PL054, PL055, and PL056 were grouped as a continuous site.	Beetles confirmed, Unhatched egg clusters confirmed, Larva unconfirmed.

Point	Latitude	Longitude
MOSN PL062	N44° 52.186'	W89° 38.444'

Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	Comments
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.	
2012	3' - 7'	7 Plants	Light	N/A	PL061, and PL62 were grouped as a continuous site.	Beetles unconfirmed, Unhatched egg clusters confirmed, Larva unconfirmed, Some window-paning

Point	Latitude	Longitude
MOSN PL092	N44° 47.309'	W89° 42.217'

Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	Comments
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.	
2012	2' - 4'	8 Plants	Light/Medium	N/A	PL092 and PL133 were grouped as a continuous site.	Beetles unconfirmed, Unhatched egg clusters confirmed, Larva unconfirmed.

Point	Latitude	Longitude
MOSN PL097	N44° 47.330'	W89° 41.789'

Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	Comments
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.	
2012	3' - 5'	>500	Light/Medium	N/A	PL097, PL098, and PL099 were grouped as a continuous site.	Beetles unconfirmed, Unhatched egg clusters confirmed, Larva unconfirmed, Window-paning.

Point	Latitude	Longitude
MOSN PL100	N44° 48.856'	W89° 42.476'

Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	Comments
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	
2012	8'	2 Plants	Medium	N/A	N/A	Beetles confirmed, Unhatched egg clusters confirmed, Larva unconfirmed, Photos.

Point	Latitude	Longitude
MOSN PL117	N44° 49.896'	W89° 41.133'

Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	Comments
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.	
2012	2' - 4'	6-8 Plants	Light	N/A	PL117 and PL118 were grouped as a continuous site.	Beetles unconfirmed, Unhatched egg clusters unconfirmed, Larva unconfirmed, Window-paning. Secondary Point.

Point	Latitude	Longitude
MOSN PL191	N44 48 043'	W89 41 788'

Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	Comments
2007	N/A	VH*	Heavy	N/A	N/A	
2008	N/A	VH*	Light	N/A	N/A	
2009	N/A	VH*	Heavy	N/A	N/A	
2010	N/A	M*	Heavy	N/A	N/A	
2011	N/A	VH*	Light	N/A	N/A	
2012	2' - 6'	>100	Light	N/A	N/A	Beetles confirmed, Unhatched egg clusters unconfirmed, Larva unconfirmed, Some window-paning.

Point	Latitude	Longitude
MOSN PL192	N44 47 825'	W89 42 207'

Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	Comments
2007	N/A	H*	Heavy	N/A	N/A	
2008	N/A	M*	Heavy	N/A	N/A	
2009	N/A	M*	Heavy	N/A	N/A	
2010	N/A	L*	Heavy	N/A	N/A	
2011	N/A	L*	Light	N/A	N/A	
2012	3' - 5'	3 Plants	Light/Medium	N/A	N/A	Beetles unconfirmed, Unhatched egg clusters unconfirmed, Larva unconfirmed.

Point	Latitude	Longitude
MOSN PL193	N44 52 235'	W89 38 408'

Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	Comments
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	N/A	N/A	N/A	N/A	N/A	
2012	5'	1 Plant	Light	N/A	N/A	Beetles unconfirmed, Unhatched egg clusters confirmed, Larva unconfirmed. Secondary Point.

Point	Latitude	Longitude
MOSN PL194	N44 48 851'	W89 40 950'

Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	Comments
2007	N/A	M*	N/A	N/A	N/A	
2008	N/A	M*	N/A	N/A	N/A	
2009	N/A	M*	N/A	N/A	N/A	
2010	N/A	L*	N/A	N/A	N/A	
2011	N/A	L*	N/A	N/A	N/A	
2012	3' - 5'	6 Plants	None	N/A	N/A	Beetles unconfirmed, Unhatched egg clusters unconfirmed, Larva unconfirmed. Secondary Point.

Point	Latitude	Longitude
MOSN PL195	N44 47 970'	W89 43 359'

Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	Comments
2007	N/A	M*	N/A	N/A	N/A	
2008	N/A	M*	N/A	N/A	N/A	
2009	N/A	VH*	N/A	N/A	N/A	
2010	N/A	VH*	Heavy	N/A	N/A	
2011	N/A	VH*	None	N/A	N/A	
2012	2' - 7'	>100 Plants	Light	N/A	N/A	Could not get close enough to inspect plants for beetles, larva, and egg clusters. Very heavy plant growth.

Point	Latitude	Longitude
MOSN PL196	N44 48 226'	W89 42 650'

Year	Plant Height	Stand Area	Beetle Damage	Treatment	Grouped Sites	Comments
2007	N/A	N*	N/A	N/A	N/A	
2008	N/A	N*	N/A	N/A	N/A	
2009	N/A	L*	N/A	N/A	N/A	
2010	N/A	H*	N/A	N/A	N/A	
2011	N/A	H*	Light	N/A	N/A	
2012	2' - 3'	10 Plants	Light	N/A	N/A	Could not get close enough to inspect plants for beetles, larva, and egg clusters. Secondary Point.

* Stand Area purpleloosestrife densities ratings for sities #191, #192, #194, #195, and #196 were taken from the 5 Year Comprehensive Report for the Mosinee Project - 2011. (Information from Purple Loosestrife Distribution Maps)

Key -

Plants per 1000 SQ FT

N (None) = 0

L (Light) = 1 - 5

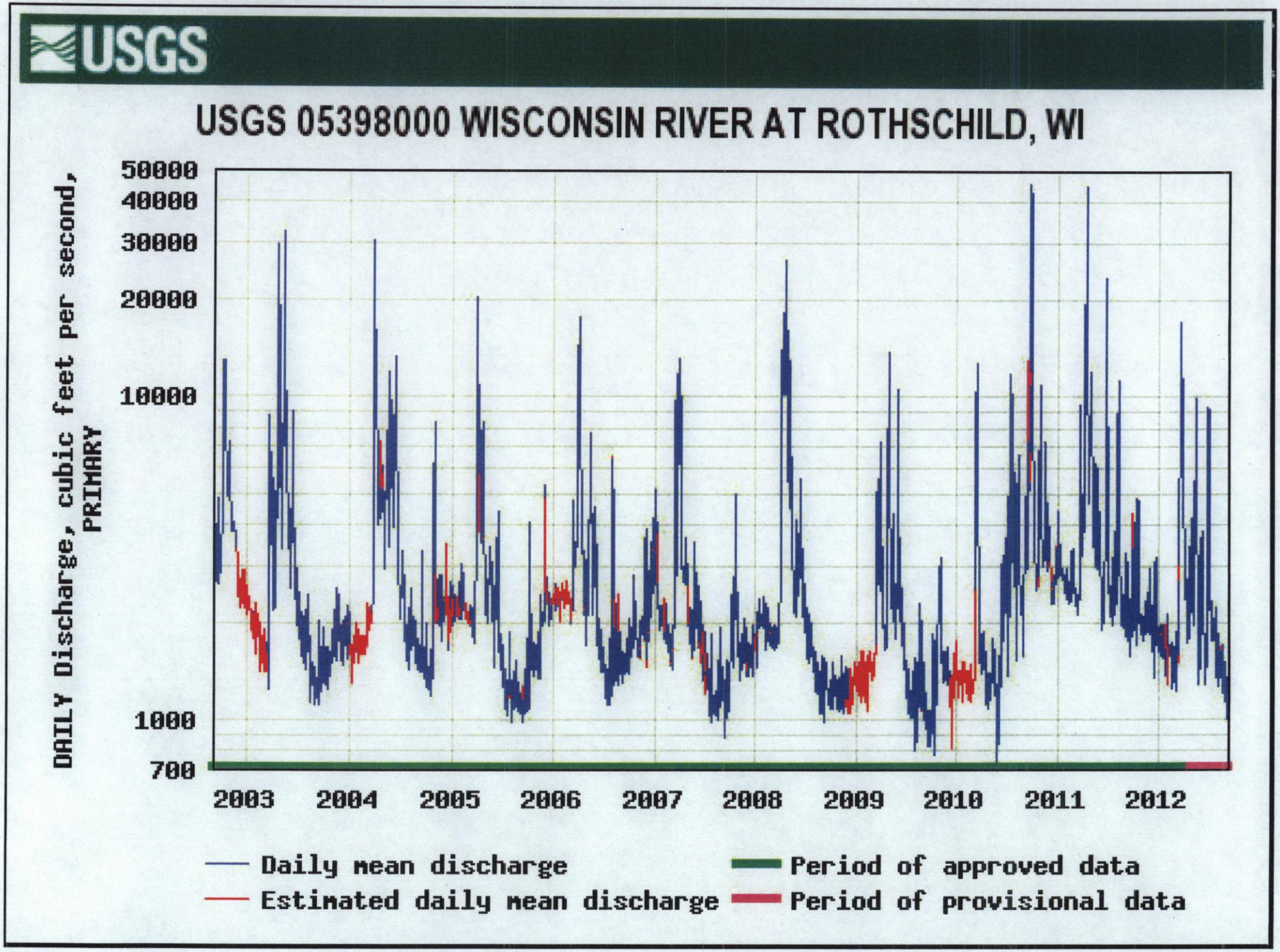
M (Medium) = 6 - 25

H (Heavy) = 26 - 100

VH (Very Heavy) = >100

APPENDIX B

Ten Year Graph of
Daily Mean Streamflow for
USGS Gage #05398000
Wisconsin River at Rothschild, WI



APPENDIX C

Reservoir Elevation on Survey Date

Mosinee Hydroelectric Project impoundment operating level for the date of July 24, 2012 as confirmed by operation personnel were as follows:
Reservoir Elevations

7/24/12 – 1137.80' MSL

Document Content(s)

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