



Upper Peninsula Power Company

(a subsidiary of Integrys Energy Group)
700 North Adams Street
P.O. Box 19001
Green Bay, WI 54307-9001

December 2, 2010

FERC Project #1864

Ms. Kimberly D. Bose, Secretary
The Federal Energy Regulatory Commission
888 First Street NE
Washington, DC 20426

Dear Secretary Bose:

2010 Noxious Plants Monitoring Plan Survey Results - Bond Falls Hydroelectric Project (FERC Project No. 1864)

As per the Federal Energy Regulatory Commission (FERC) approved Noxious Plants Monitoring Plan for the Bond Falls Hydroelectric Project, Upper Peninsula Power Company (UPPCO) is required to submit the results of the Eurasian water milfoil (EWM) and purple loosestrife monitoring surveys to the Bond Falls Implementation Team (BFIT) by November 30th and to FERC by December 31st.

UPPCO contracted the services of H2O in Motion, Inc. to complete EWM and purple loosestrife surveys at the Bond Falls Hydroelectric Project in 2010. Purple loosestrife surveys were completed from July 24th – 26th, 2010 for the Bond Falls Hydroelectric Project. The surveys did identify the presence of purple loosestrife within the project boundary.

Seven colonies of purple loosestrife were identified within the Bergland Development. Three colonies of 1-5 plants, two colonies of 6-50 plants, and two colonies of 50+ plants were observed.

In consultation with the BFIT, UPPCO raised and released approximately 5,000 *Galerucella* beetles (beetles) on the south end of the reservoir next to existing purple loosestrife populations. The release was completed on July 7, 2010. The beetles were released to control purple loosestrife colonies identified during previous surveys.

During the purple loosestrife survey completed on July 24, 2010 for the Bergland Development, no signs of beetles or beetle feeding were observed on any of the purple loosestrife colonies.

UPPCO has consulted with experts familiar with *Galerucella* beetles concerning the lack of beetles and beetle feeding observed at the Bergland Development. From these consultations, some ideas concerning why there is a lack of beetles observed at the reservoir included heavy predation on the beetle populations or simply needing more time for the beetles to become established.

Additionally, approximately 20 purple loosestrife plants were identified within the Cisco Chain of Lakes - Thousand Island Lake. The purple loosestrife plants were uprooted and removed from the site. An approved herbicide was then applied to the ground where the plants were originally found.

UPPCO will consult with BFIT, to determine the most appropriate method of control for the 2011 field season.

Eurasian water milfoil surveys were also conducted from July 24th – 26th, 2010 for the Bond Falls Hydroelectric Project. EWM sample locations were surveyed and a meander sample for EWM was

Ms. Kimberly D. Bose

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completed throughout the Bond Falls Hydroelectric Project reservoirs. The surveys did not indicate the presence of Eurasian water milfoil at the Bond Falls Hydroelectric Projects.

However, approximately ten EWM plants were identified within Clearwater Lake. Clearwater Lake is adjacent to the Cisco Chain of Lakes and is connected to the Cisco Chain of Lakes via a small creek outlet. Clearwater Lake is, however; not within the Bond Falls Hydroelectric project boundary.

UPPCO will consult with the BFIT on the likelihood of EWM spread from Clearwater Lake to the other water bodies in the Cisco Chain of Lakes and any control measures that may be necessary for 2011.

Appendix A includes the Bond Falls Reservoir, Victoria Falls Reservoir and Bergland Development EWM and purple loosestrife survey results report produced by H2O in Motion, Inc.

Appendix B includes EWM and purple loosestrife survey results report produced by H2O in Motion, Inc for the Cisco Chain of Lakes.

Appendix C includes documentation of consultation with the BFIT.

Should you have any questions relative to this material, please do not hesitate to contact Jamie Nuthals at (920) 433-1460.

Sincerely,

A handwritten signature in dark ink, appearing to read "T. Jensky", with a stylized, cursive script.

Terry P. Jensky
Vice President – Energy Supply Operations
for Wisconsin Public Service

Enc.

cc: Ms. Carlisa Linton, FERC - DC
Ms. Joan Johanek, WPS - D2
Mr. Howard Giesler, WPS - PUL

Mr. Gil Snyder, WPS - D2
Mr. Virgil Schlorke, UPPCO - UISC
Mr. Jim Melchiori, UPPCO - UVD

APPENDIX A

BOND FALLS RESERVOIR, VICTORIA FALLS RESERVOIR AND BERGLAND DEVELOPMENT EWM AND PURPLE LOOSESTRIFE SURVEY RESULTS REPORT

APPENDIX B

CISCO CHAIN OF LAKES EWM AND PURPLE LOOSESTRIFE SURVEY RESULTS REPORT

APPENDIX C

DOCUMENTATION OF CONSULTATION

Final Report

Upper Peninsula Power Company
Invasive Plant Species Survey
Ontonagon & Gogebic County, Michigan

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I. Introduction

The purpose of this survey was to identify possible sites of infestation of Eurasian Watermilfoil and Purple Loosestrife plants, and to determine the condition of previously confirmed sites. The areas included in this survey are the impoundment shorelines and adjoining wetlands of Bond Falls, Victoria Falls, and Lake Gogebic.

Myriophyllum spicatum, commonly known as Eurasian Watermilfoil, is an aquatic, non-native, invasive, freshwater plant. It is associated with the formation of thick mats of surface growth. Eurasian Watermilfoil closely resembles the native northern milfoil. The identifying characteristic between these two species is the native has 6 to 10 pairs of spikes per leaflet, while the Eurasian has 12 to 20 pairs of spikes per leaflet and is slightly darker in color.

Lythrum salicaria, commonly known as Purple Loosestrife, is an invasive, herbaceous, wetland perennial. Purple Loosestrife is identified by a stiff four-sided stem, opposite leaf arrangement, and a spike of purple flowers. Mature plants grow in a bushy arrangement with one to fifty stems.

II. Method

The method used to search for the presence of these species in the selected area is the inventory survey method. The purpose of an inventory survey is to establish whether the plants are in the identified area and, if so, the boundaries within which they are found. GPS points of locations to be surveyed were provided by UPPCO and were accessed by boat.

Specifically, this method consisted of accessing the specified sites and detecting the presence of Eurasian Watermilfoil or Purple Loosestrife. A meandering survey of the entire shoreline was also conducted to identify any additional sites of possible infestation. Once a specified sampling location or infested site was identified, it was photographed, marked by GPS, and recorded. Pictures were taken to document each species' presence in the area.

III. Results

The overall final results of this survey are listed below in Table 1.

Table 1: Final Results

Scientific Name	Common Name	Bond Falls	Lake Gogebic	Victoria Falls
<i>Myriophyllum spicatum</i>	Eurasian Watermilfoil	0	0	0
<i>Lythrum salicaria</i>	Purple Loosestrife	0	145+ plants	0

H₂O in Motion completed a survey of the requested locations, as well as a meandering survey of all accessible shoreline. All locations were surveyed for both Purple Loosestrife and Eurasian Watermilfoil. The results are listed in Appendix A for each respective lake.

Bond Falls

At the Bond Falls location proper invasive species signage was found at the boat launch and photographed. The level of the lake was down considerably due to draining of the reservoir. The current water level made it impossible to survey some of the requested GPS locations specified by UPPCO as they were no longer under water. The locations surveyed were taken as close as possible to the requested locations. Any other areas with indications of possible infestation were also surveyed. Maps of the sample locations can be found in Appendix B for each of the respective lakes. The green and purple dots only represent sample locations, not confirmation of the presence of invasive species. Of the areas surveyed at Bond Falls, none contained Purple Loosestrife or Eurasian Watermilfoil. Site pictures can be found in the enclosed file for each of the respective lakes.

Lake Gogebic

At Lake Gogebic no Eurasian Watermilfoil was found at any sites surveyed. Purple Loosestrife was found at all the sites listed in the 2009 survey with about the same population density. A new site was found with two plants at location 5 in Appendix A. No signs of beetle feeding were found at any of the sites.

Victoria Falls

At Victoria Falls no invasive species signage was found. No invasive species were found at any of the sample locations.

IV. Conclusion

H₂O in Motion found and identified the plants requested in this survey.

No Eurasian Watermilfoil was found in any of the lakes included in this survey. Purple Loosestrife was only found to occur on Lake Gogebic. The complete photo record is included as a separate enclosure. The pictures corresponding to each specific site are listed in Appendix A for each lake.

The visual observations taken at Lake Gogebic indicate no beetle activity present on any of the Purple Loosestrife plants. No removal/control actions were taken as requested.

Appendix A: Tables

Bond Falls

Date:	7/23/2010	Time:	6pm-8pm				
Lake:	Bond Falls	Surveyors:	Todd Macco, Ed Shaw				
Weather:	Clear	Condition:	Water Level Down, Reservoir Drained				
Eurasian Milfoil Survey							
Transect#	Pics	0-.5M	.5-1.5M	1.5-3.0M	>3.0M	Origin	Comments
1A	1-12	0	0	0	0	N46 23.801	No Purple Loosestrife, No Eurasian Milfoil
1B		0	0	0	0	W89 7.369	
1C		0	0	0	0		
2A	13-37	0	0	0	0	N46 24.170	No Purple Loosestrife, No Eurasian Milfoil
2B	32	0	0	0	0	W89 6.189	Native Milfoil, Thick Mat
2C		0	0	0	0		
3A	38-44	0	0	0	0	N46 24.308	No Purple Loosestrife, No Eurasian Milfoil
3B		0	0	0	0	W89 7.279	Native Milfoil
3C		0	0	0	0		
4A	45-47	0	0	0	0	N46 23.737	No Purple Loosestrife, No Eurasian Milfoil
4B		0	0	0	0	W89 7.777	Boat Launch
4C		0	0	0	0		
5A		0	0	0	0	N46 24.078	No Purple Loosestrife, No Eurasian Milfoil
5B		0	0	0	0	W89 6.169	
5C		0	0	0	0		
0-Absent, 1-Presence less than half, 2-Equal compared to other species,							
3-Dominant, 4-Total infestation							
Note: All Transects are 40 feet in length and proceed away from shore in a direction perpendicular to the shoreline							

Lake Gogebic

Date:	7/24/2010	Time:	8am-4pm				
Lake:	Gogebic	Surveyors:	Todd Macco, Ed Shaw				
Weather:	Rain	Condition:	Good				
Eurasian Milfoil Survey							
Transect#	Pics	0-5M	.5-1.5M	1.5-3.0M	>3.0M	Origin	Comments
1A	138-149	0	0	0	0	N46 27.650	No Purple Loosestrife, No Eurasian Milfoil
1B		0	0	0	0	W89 34.250	
1C		0	0	0	0		
2A	155-158	0	0	0	0	N46 32.957	No Purple Loosestrife, No Eurasian Milfoil
2B		0	0	0	0	W89 37.388	
2C		0	0	0	0		
3A	167-175	0	0	0	0	N46 35.297	No Purple Loosestrife, No Eurasian Milfoil
3B		0	0	0	0	W89 34.428	
3C		0	0	0	0		
4A	178-185	0	0	0	0	N46 28.288	No Purple Loosestrife, No Eurasian Milfoil,
4B		0	0	0	0	W89 31.877	
4C		0	0	0	0		
5A	201-206	0	0	0	0	N46 26.672	No Purple Loosestrife, No Eurasian Milfoil,
5B		0	0	0	0	W89 31.547	
5C		0	0	0	0		
0-Absent, 1-Presence less than half, 2-Equal compared to other species,							
3-Dominant, 4-Total infestation							
Note: All Transects are 40 feet in length and proceed away from shore in a direction perpendicular to the shoreline							

Purple Loosestrife Survey							
Site	Pics	Lat	Long	Amount	Comments		
1	48-70	N46 24.555	W89 33.089	B	No Eurasian Milfoil, 20 purple loosestrife plants, no signs of beetles		
2	71-99	N46 24.257	W89 33.297	0	No Purple Loosestrife, No Eurasian Milfoil,		
3	100-106	N46 24.440	W89 32.988	C	No Eurasian Milfoil, 50+ purple loosestrife plants, no signs of beetles,		
					Peat Bog Difficult Access		
4	110-121	N46 24.664	W89 32.508	C	No Eurasian Milfoil, 50+ purple loosestrife plants, no signs of beetles		
					Sites 4 and 5 of 2009 found to occur in same relative location		
5	122-125	N46 24.744	W89 32.382	A	No Eurasian Milfoil, 2 purple loosestrife plants, no signs of beetles		
					New Site not listed in 2009 Survey		
6	132-135	N46 24.763	W89 32.314	A	No Eurasian Milfoil, 1 purple loosestrife plants, no signs of beetles		
7	136-137	N46 24.697	W89 32.549	A	No Eurasian Milfoil, 2 purple loosestrife plants, no signs of beetles		
8	197-200	N46 27.550	W89 31.707	B	No Eurasian Milfoil, 20 purple loosestrife plants, no signs of beetles		
A-Small Colonies of 1-5 Plants							
B-Medium Colonies of 6-50 Plants							
C-Dense Colonies of >50 Plants							
0-Absent							

Lake Gogebic: Additional Sampling Sites

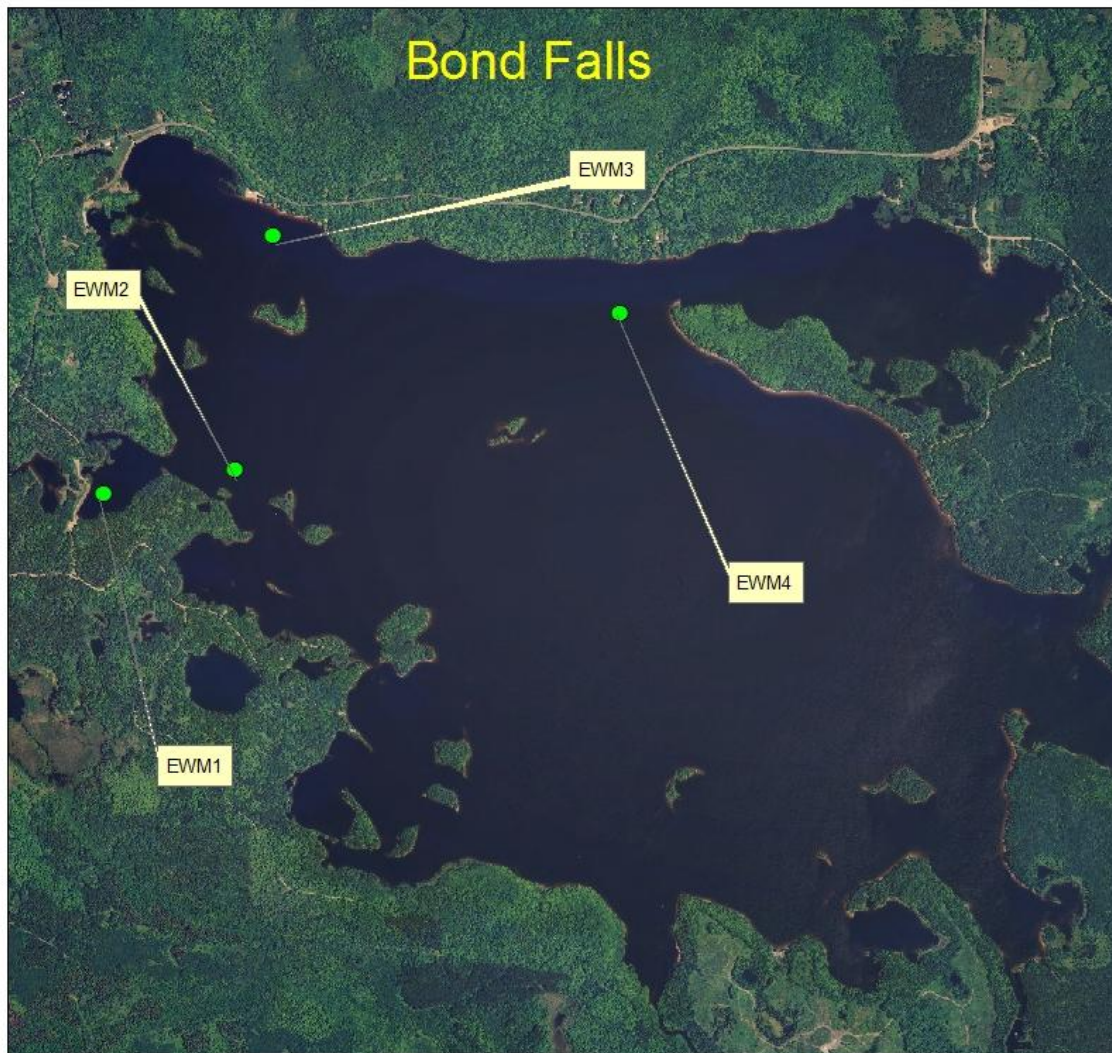
Additional Sites Surveyed at Lake Gogebic				
N46 34.728	Pics	No Purple Loosestrife, No Eurasian Milfoil		
W89 36.149				
N46 30.205	186-196	Eurasian Milfoil Check		
W89 36.048		No Purple Loosestrife, No Eurasian Milfoil		
N46 35.184	159-166	No Purple Loosestrife, No Eurasian Milfoil		
W89 33.580				
N46 31.244	150-154	No Purple Loosestrife, No Eurasian Milfoil		
W89 36.159				
N46 33.307		Purple Loosestrife Check		
W89 37.642		No Purple Loosestrife, No Eurasian Milfoil		
N46 24.078	176-177	No Purple Loosestrife, No Eurasian Milfoil		
W89 6.169				

Victoria Falls

Date:	7/24/2010	Time:	6pm-8pm				
Lake:	Victoria Falls	Surveyors:	Todd Macco, Ed Shaw				
Weather:	Clear	Lake Condi	Good				
Eurasian Milfoil Survey							
Transect#	Pics	0-.5M	.5-1.5M	1.5-3.0M	>3.0M	Origin	Comments
1A	207-213	0	0	0	0	N46 41.269	No Purple Loosestrife, No Eurasian Milfoil
1B	214-221	0	0	0	0	W89 13.827	No Signage
1C		0	0	0	0		
2A	236-237	0	0	0	0	N46 40.257	No Purple Loosestrife, No Eurasian Milfoil
2B	238-239	0	0	0	0	W89 15.021	
2C		0	0	0	0		
0-Absent, 1-Presence less than half, 2-Equal compared to other species,							
3-Dominant, 4-Total infestation							
Note: All Transects are 40 feet in length and proceed away from shore in a direction perpendicular to the shoreline							

Appendix B: Sample Locations

Bond Falls



Legend

- EWM Sample Locations



Lake Gogebic

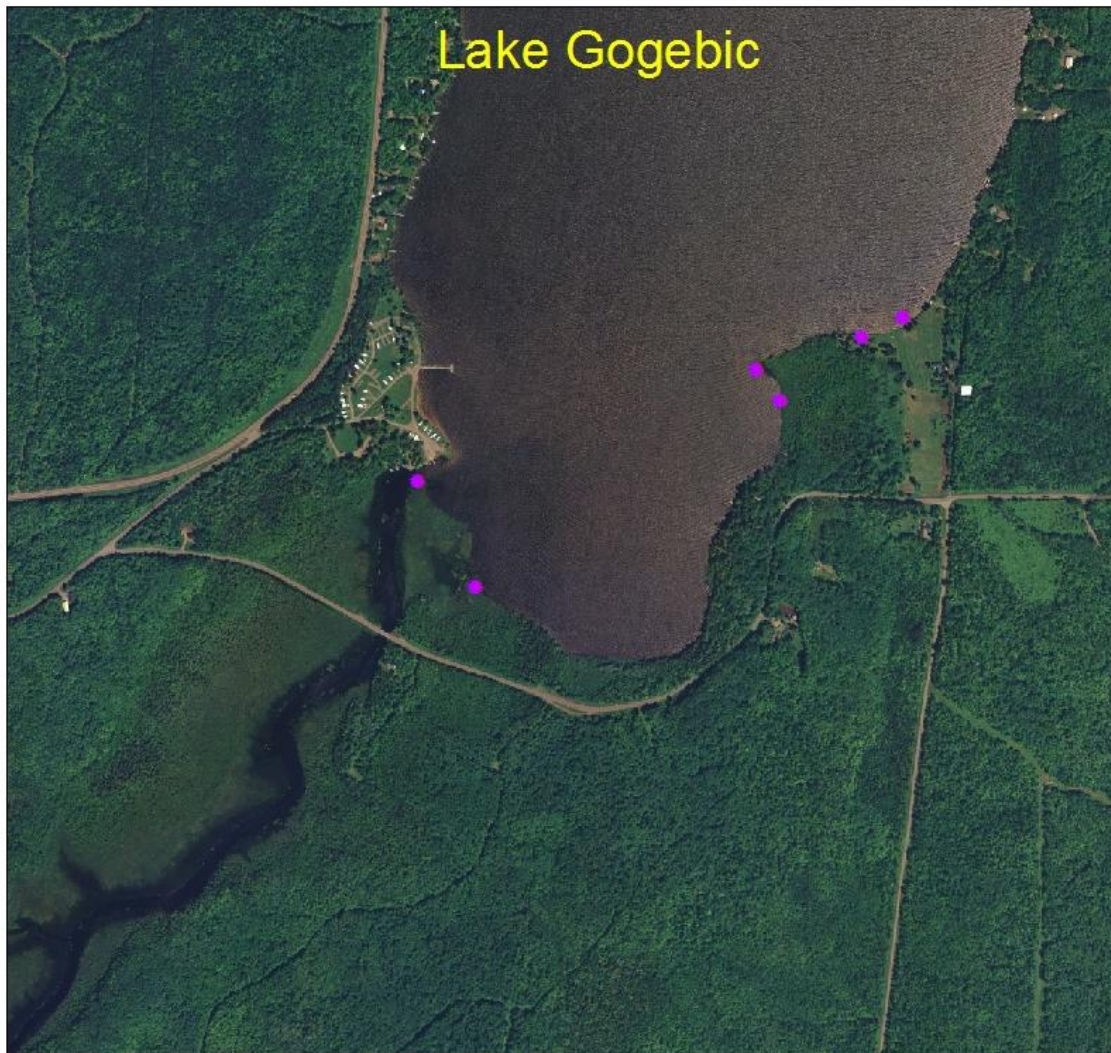


Legend

- EWM Sample Locations
- 🦅 Eagle / Osprey Nest
- Purple Loosestrife

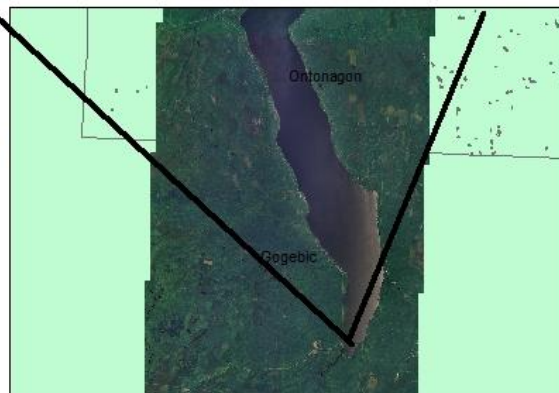


Lake Gogebic: Southern Points



Legend

- Purple Loosestrife

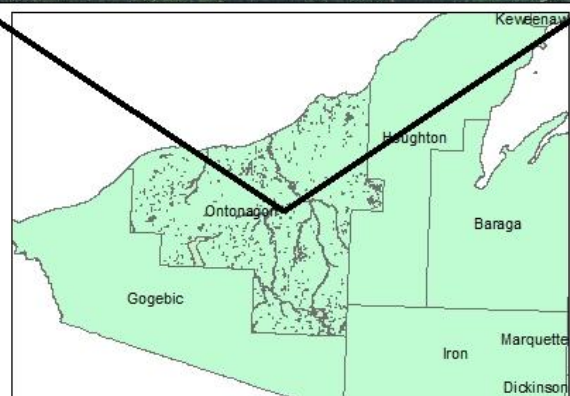


Victoria Falls



Legend

- EWM Sample Locations



Final Report

Upper Peninsula Power Company
Invasive Plant Species Survey
Cisco Chain of Lakes
Watersmeet Michigan
Land O' Lakes, Wisconsin

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I. Introduction

The purpose of this survey was to identify possible sites of infestation of Eurasian Watermilfoil and Purple Loosestrife plants, and to determine the condition of previously confirmed sites. The areas included in this survey are the impoundment shorelines and adjoining wetlands of the Cisco Chain of Lakes.

Myriophyllum spicatum, commonly known as Eurasian Watermilfoil, is an aquatic, non-native, invasive, freshwater plant. It is associated with the formation of thick mats of surface growth. Eurasian Watermilfoil closely resembles the native northern milfoil. The identifying characteristic between these two species is the native has 6 to 10 pairs of spikes per leaflet, while the Eurasian has 12 to 20 pairs of spikes per leaflet and is slightly darker in color.

Lythrum salicaria, commonly known as Purple Loosestrife, is an invasive, herbaceous, wetland perennial. Purple Loosestrife is identified by a stiff four-sided stem, opposite leaf arrangement, and a spike of purple flowers. Mature plants grow in a bushy arrangement with one to fifty stems.

II. Method

The method used to search for the presence of these species in the selected area is the inventory survey method. The purpose of an inventory survey is to establish whether the plants are in the identified area and, if so, the boundaries within which they are found. General locations to be surveyed were provided by UPPCO and were accessed by boat.

Specifically, this method consisted of accessing the specified sites and detecting the presence of Eurasian Watermilfoil or Purple Loosestrife. A meandering survey of the entire shoreline was also conducted to identify any additional sites of possible infestation. Once a specified sampling location or infested site was identified it was photographed, marked by GPS, and recorded. Pictures were taken to document the presence of an invasive or nuisance species in the area.

III. Results

The overall final results of this survey are listed below in Table 1.

Table 1: Final Results

Scientific Name	Common Name	Clear Water	1000 Island	Other Lakes
<i>Myriophyllum spicatum</i>	Eurasian Watermilfoil	10	0	0
<i>Lythrum salicaria</i>	Purple Loosestrife	0	20	0

H₂O in Motion completed a survey of the requested locations, as well as a meandering survey of all accessible shoreline. All locations were surveyed for both Purple Loosestrife and Eurasian Watermilfoil. The results are listed in Appendix A for each respective lake. Maps of the locations surveyed can be found in Appendix B and Appendix C for each of the respective lakes. The green and purple dots only represent sample locations, not confirmation of the presence of invasive species. Site pictures can be found in Appendix D.

All boat landings had proper invasive species signage. The lakes surveyed included Thousand Island, Cisco, Big Africa, Record, Little Africa, Lindsley, Fish Hawk, Morley, Big, West Bay, East Bay, Mamie, Indian, Helen, and Clearwater.

Only two lakes were found to contain invasive species: Thousand Island and Clearwater. One site on Thousand Island contained an infestation of twenty Purple Loosestrife plants. No indications of beetle activity were observed. These plants were uprooted and disposed of, and the ground was then sprayed with 2% Rodeo herbicide. One site on Clearwater contained an infestation of approximately ten Eurasian Watermilfoil plants. This site was located on the South West shore of the lake. No indications of weevil activity were observed.

IV. Conclusion

H₂O in Motion found and identified the plants requested in this survey.

No indications of any insect controls were observed on the plants surveyed.

Appendix A: Tables

Clearwater

Date:	7/26/2010	Time:					
Lake:	Clearwater	Surveyors:	Todd Macco, Larry Sundling				
Weather:	Clear	Condition:	Good				
Eurasian Milfoil Survey							
Transect#	Pics	0-.5M	.5-1.5M	1.5-3.0M	>3.0M	Origin	Comments
1A	395-402	0	0	0	0	46 15.705	No Eurasian Milfoil, No Purple Loosestrife
1B		0	0	0	0	89 24.636	
1C		0	0	0	0		
2A		0	0	0	0	46 15.709	No Eurasian Milfoil, No Purple Loosestrife
2B		0	0	0	0	89 24.669	
2C		0	0	0	0		
3A		0	0	0	0	46 15.108	No Eurasian Milfoil, No Purple Loosestrife
3B		0	0	0	0	89 24.648	
3C		0	0	0	0		
4A	403-410	0	1	0	0	46 15.092	Eurasian Milfoil Confirmed,
4B		0	1	0	0	89 24.710	No clumps only few single plants,
4C		0	1	0	0		all submerged no surface growth
5A	411-420	0	0	0	0	46 15.357	Stream Channel, Sandy Bottom, No Milfoil
5B		0	0	0	0	89 24.261	No Eurasian Milfoil, No Purple Loosestrife
5C		0	0	0	0		
0-Absent, 1-Presence less than half, 2-Equal compared to other species,							
3-Dominant, 4-Total infestation							
Note: All Transects are 40 feet in length and proceed away from shore in a direction perpendicular to the shoreline							

Thousand Island: Purple Loosestrife

Purple Loosestrife Survey			Lake: Thousand Island				
Site	Pics	Lat	Long	Amount	Comments		
1	291	46 14.276	89 23.923	B	Purple Loosestrife, 10 plants, pulled and Sprayed		
2	292	46 14.283	89 23.906	B	Purple Loosestrife, 10plants, pulled and Sprayed		
A-Small Colonies of 1-5 Plants							
B-Medium Colonies of 6-50 Plants							
C-Dense Colonies of >50 Plants							
0-Absent							

Thousand Island

Date:	7/25/2010	Time:					
Lake:	1000 Island	Surveyors:	Todd Macco, Ed Shaw, Larry Sundling				
Weather:	Clear	Condition:	Good				
Eurasian Milfoil Survey							
Transect#	Pics	0-.5M	.5-1.5M	1.5-3.0M	>3.0M	Origin	Comments
1A	240-247	0	0	0	0	46 13.780	No Purple Loosestrife, No Eurasian Milfoil
1B		0	0	0	0	89 23.503	
1C		0	0	0	0		
2A	248-249	0	0	0	0	46 13.684	No Purple Loosestrife, No Eurasian Milfoil
2B	250-252	0	0	0	0	89 23.658	
2C		0	0	0	0		
3A	253-255	0	0	0	0	46 13.295	No Purple Loosestrife, No Eurasian Milfoil
3B		0	0	0	0	89 23.792	
3C		0	0	0	0		
4A	264-270	0	0	0	0	46 13.741	No Purple Loosestrife, No Eurasian Milfoil
4B		0	0	0	0	89 25.593	
4C		0	0	0	0		
5A	273-284	0	0	0	0	46 14.845	No Purple Loosestrife, No Eurasian Milfoil
5B		0	0	0	0	89 26.598	
5C		0	0	0	0		
6A	293-296	0	0	0	0	46 13.926	No Purple Loosestrife, No Eurasian Milfoil
6B		0	0	0	0	89 22.844	
6C		0	0	0	0		
7A	256-257	0	0	0	0	46 13.318	Sample Native Milfoil
7B		0	0	0	0	89 24.501	No Purple Loosestrife, No Eurasian Milfoil
7C		0	0	0	0		
8A	285-290	0	0	0	0	46 13.411	Native milfoil infestation
8B		0	0	0	0	89 25.090	No Purple Loosestrife, No Eurasian Milfoil
8C		0	0	0	0		
9A	258-261	0	0	0	0	46 13.473	
9B		0	0	0	0	89 25.126	No Purple Loosestrife, No Eurasian Milfoil
9C		0	0	0	0		
10A		0	0	0	0	46 14.537	No Purple Loosestrife, No Eurasian Milfoil
10B		0	0	0	0	89 26.356	
10C		0	0	0	0		
11A	271-272	0	0	0	0	46 13.697	No Purple Loosestrife, No Eurasian Milfoil
11B		0	0	0	0	89 26.325	
11C		0	0	0	0		
0-Absent, 1-Presence less than half, 2-Equal compared to other species,							
3-Dominant, 4-Total infestation							
Note: All Transects are 40 feet in length and proceed away from shore in a direction perpendicular to the shoreline							

West Bay

Date:	7/26/2010	Time:					
Lake:	West Bay	Surveyors:	Todd Macco, Larry Sundling				
Weather:	Clear	Condition:	Good				
Eurasian Milfoil Survey							
Transect#	Pics	0-.5M	.5-1.5M	1.5-3.0M	>3.0M	Origin	Comments
1A	347-350	0	0	0	0	46 12.119	Massive Native Milfoil Infest
1B		0	0	0	0	89 26.113	No Purple Loosestrife, No Eurasian Milfoil
1C		0	0	0	0		
0-Absent, 1-Presence less than half, 2-Equal compared to other species,							
3-Dominant, 4-Total infestation							
Note: All Transects are 40 feet in length and proceed away from shore in a direction perpendicular to the shoreline							

Record

Date:	7/25/2010	Time:					
Lake:	Record	Surveyors:	Todd Macco, Larry Sundling				
Weather:	Clear	Condition:	Good				
Eurasian Milfoil Survey							
Transect#	Pics	0-.5M	.5-1.5M	1.5-3.0M	>3.0M	Origin	Comments
1A	297-300	0	0	0	0	46 15.168	Large Native Milfoil Infest
1B		0	0	0	0	89 23.485	No Purple Loosestrife, No Eurasian Milfoil
1C		0	0	0	0		
0-Absent, 1-Presence less than half, 2-Equal compared to other species,							
3-Dominant, 4-Total infestation							
Note: All Transects are 40 feet in length and proceed away from shore in a direction perpendicular to the shoreline							

Morley

Date:	7/25/2010	Time:					
Lake:	Morley	Surveyors:	Todd Macco, Larry Sundling				
Weather:	Clear	Condition:	Good				
Eurasian Milfoil Survey							
Transect#	Pics	0-.5M	.5-1.5M	1.5-3.0M	>3.0M	Origin	Comments
1A	332-336	0	0	0	0	46 12.507	No Purple Loosestrife, No Eurasian Milfoil
1B		0	0	0	0	89 26.180	
1C		0	0	0	0		
0-Absent, 1-Presence less than half, 2-Equal compared to other species,							
3-Dominant, 4-Total infestation							
Note: All Transects are 40 feet in length and proceed away from shore in a direction perpendicular to the shoreline							

Mamie

Date:	7/26/2010	Time:					
Lake:	Mamie	Surveyors:	Todd Macco, Larry Sundling				
Weather:	Clear	Condition:	Good				
Eurasian Milfoil Survey							
Transect#	Pics	0-.5M	.5-1.5M	1.5-3.0M	>3.0M	Origin	Comments
1A	358-362	0	0	0	0	46 11.928	No Eurasian Milfoil, No Purple Loosestrife
1B		0	0	0	0	89 23.623	
1C		0	0	0	0		
2A	363-377	0	0	0	0	46 11.321	No Eurasian Milfoil, No Purple Loosestrife
2B		0	0	0	0	89 22.858	
2C		0	0	0	0		
3A	378-381	0	0	0	0	46 11.343	No Eurasian Milfoil, No Purple Loosestrife
3B		0	0	0	0	89 23.838	
3C		0	0	0	0		
0-Absent, 1-Presence less than half, 2-Equal compared to other species,							
3-Dominant, 4-Total infestation							
Note: All Transects are 40 feet in length and proceed away from shore in a direction perpendicular to the shoreline							

Little Africa

Date:	7/25/2010	Time:					
Lake:	Little Africa	Surveyors:	Todd Macco, Larry Sundling				
Weather:	Clear	Condition:	Good				
Eurasian Milfoil Survey							
Transect#	Pics	0-.5M	.5-1.5M	1.5-3.0M	>3.0M	Origin	Comments
1A	304-310	0	0	0	0	46 15.212	No Eurasian Milfoil, No Purple Loosestrife
1B		0	0	0	0	89 24.223	
1C		0	0	0	0		
0-Absent, 1-Presence less than half, 2-Equal compared to other species,							
3-Dominant, 4-Total infestation							
Note: All Transects are 40 feet in length and proceed away from shore in a direction perpendicular to the shoreline							

Lindsley

Date:	7/25/2010	Time:					
Lake:	Lindsley	Surveyors:	Todd Macco, Larry Sundling				
Weather:	Clear	Condition:	Good				
Eurasian Milfoil Survey							
Transect#	Pics	0-.5M	.5-1.5M	1.5-3.0M	>3.0M	Origin	Comments
1A	311-316	0	0	0	0	46 13.382	No Purple Loosestrife, No Eurasian Milfoil
1B		0	0	0	0	89 25.740	
1C		0	0	0	0		
0-Absent, 1-Presence less than half, 2-Equal compared to other species,							
3-Dominant, 4-Total infestation							
Note: All Transects are 40 feet in length and proceed away from shore in a direction perpendicular to the shoreline							

Indian

Date:	7/26/2010	Time:					
Lake:	Indian	Surveyors:	Todd Macco, Larry Sundling				
Weather:	Clear	Condition:	Good				
Eurasian Milfoil Survey							
Transect#	Pics	0-.5M	.5-1.5M	1.5-3.0M	>3.0M	Origin	Comments
1A	353-357	0	0	0	0	46 12.501	No Purple Loosestrife, No Eurasian Milfoil
1B		0	0	0	0	89 23.281	
1C		0	0	0	0		
0-Absent, 1-Presence less than half, 2-Equal compared to other species,							
3-Dominant, 4-Total infestation							
Note: All Transects are 40 feet in length and proceed away from shore in a direction perpendicular to the shoreline							

Helen

Date:	7/26/2010	Time:					
Lake:	Helen	Surveyors:	Todd Macco, Larry Sundling				
Weather:	Clear	Condition:	Good				
Eurasian Milfoil Survey							
Transect#	Pics	0-.5M	.5-1.5M	1.5-3.0M	>3.0M	Origin	Comments
1A	386-390	0	0	0	0	46 11.239	No Purple Loosestrife, No Eurasian Milfoil
1B	391-394	0	0	0	0	89 24.710	
1C		0	0	0	0		
0-Absent, 1-Presence less than half, 2-Equal compared to other species,							
3-Dominant, 4-Total infestation							
Note: All Transects are 40 feet in length and proceed away from shore in a direction perpendicular to the shoreline							

East Bay

Date:	7/26/2010	Time:					
Lake:	East Bay	Surveyors:	Todd Macco, Larry Sundling				
Weather:	Clear	Condition:	Good				
Eurasian Milfoil Survey							
Transect#	Pics	0-.5M	.5-1.5M	1.5-3.0M	>3.0M	Origin	Comments
1A	351-352	0	0	0	0	46 12.218	No Purple Loosestrife, No Eurasian Milfoil
1B		0	0	0	0	89 23.773	
1C		0	0	0	0		
0-Absent, 1-Presence less than half, 2-Equal compared to other species,							
3-Dominant, 4-Total infestation							
Note: All Transects are 40 feet in length and proceed away from shore in a direction perpendicular to the shoreline							

Cisco

Date:	7/25/2010	Time:					
Lake:	Cisco	Surveyors:	Todd Macco, Ed Shaw, Larry Sundling				
Weather:	Clear	Condition:	Good				
Eurasian Milfoil Survey							
Transect#	Pics	0-.5M	.5-1.5M	1.5-3.0M	>3.0M	Origin	Comments
1A		0	0	0	0	46 14.811	No Purple Loosestrife, No Eurasian Milfoil
1B		0	0	0	0	89 27.048	
1C		0	0	0	0		
0-Absent, 1-Presence less than half, 2-Equal compared to other species,							
3-Dominant, 4-Total infestation							

Fish Hawk

Date:	7/25/2010	Time:					
Lake:	Fish Hawk	Surveyors:	Todd Macco, Larry Sundling				
Weather:	Clear	Condition:	Good				
Eurasian Milfoil Survey							
Transect#	Pics	0-.5M	.5-1.5M	1.5-3.0M	>3.0M	Origin	Comments
1A	317-325	0	0	0	0	46 12.859	No Eurasian Milfoil, No Purple Loosestrife
1B		0	0	0	0	89 25.078	
1C	326-327	0	0	0	0		
2A		0	0	0	0	46 12.936	Eurasian Milfoil Sample: Native
2B		0	0	0	0	89 25.176	No Eurasian Milfoil, No Purple Loosestrife
2C	328-331	0	0	0	0		
3A		0	0	0	0	46 12.820	No Eurasian Milfoil, No Purple Loosestrife
3B		0	0	0	0	89 25.868	
3C		0	0	0	0		
4A		0	0	0	0	46 12.905	No Eurasian Milfoil, No Purple Loosestrife
4B		0	0	0	0	89 25.139	
4C		0	0	0	0		
0-Absent, 1-Presence less than half, 2-Equal compared to other species,							
3-Dominant, 4-Total infestation							
Note: All Transects are 40 feet in length and proceed away from shore in a direction perpendicular to the shoreline							

Big Africa

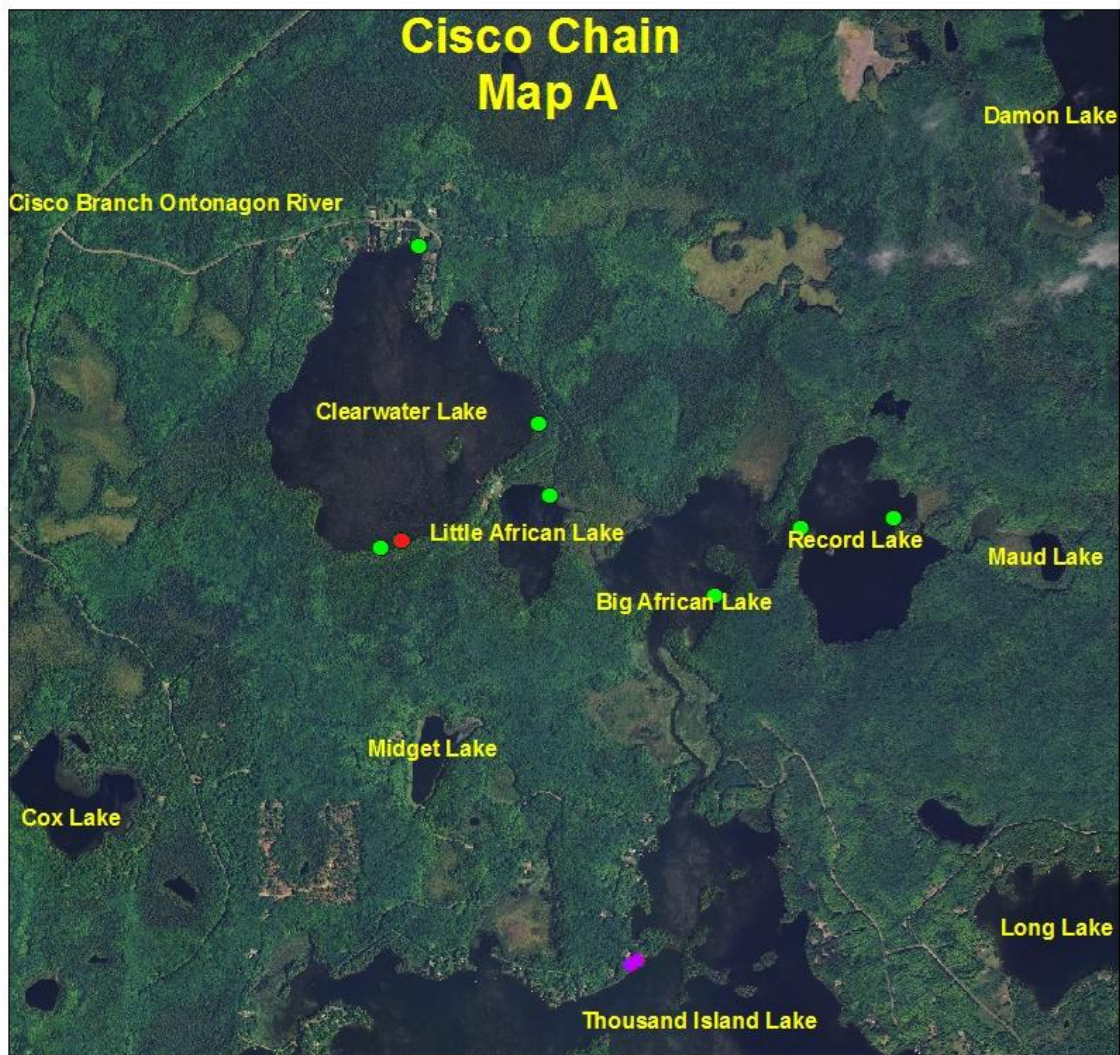
Date:	7/25/2010	Time:					
Lake:	Big Africa	Surveyors:	Todd Macco, Ed Shaw, Larry Sundling				
Weather:	Clear	Condition:	Good				
Eurasian Milfoil Survey							
Transect#	Pics	0-.5M	.5-1.5M	1.5-3.0M	>3.0M	Origin	Comments
1A	301-303	0	0	0	0	46 15.024	No Eurasian Milfoil, No Purple Loosestrife
1B		0	0	0	0	89 23.730	
1C		0	0	0	0		
2A		0	0	0	0	46 15.197	No Eurasian Milfoil, No Purple Loosestrife
2B		0	0	0	0	89 23.218	
2C		0	0	0	0		
3A		0	0	0	0	46 14.003	No Eurasian Milfoil, No Purple Loosestrife
3B		0	0	0	0	89 23.208	Large Native Mat
3C		0	0	0	0		
0-Absent, 1-Presence less than half, 2-Equal compared to other species,							
3-Dominant, 4-Total infestation							
Note: All Transects are 40 feet in length and proceed away from shore in a direction perpendicular to the shoreline							

Big Lake

Date:	7/26/2010	Time:					
Lake:	Big Lake	Surveyors:	Todd Macco, Larry Sundling				
Weather:	Clear	Condition:	Good				
Eurasian Milfoil Survey							
Transect#	Pics	0-.5M	.5-1.5M	1.5-3.0M	>3.0M	Origin	Comments
1A	337-344	0	0	0	0	46 12.197	No Eurasian Milfoil, No Purple Loosestrife
1B		0	0	0	0	89 27.651	
1C		0	0	0	0		
2A	345-346	0	0	0	0	46 11.779	No Eurasian Milfoil, No Purple Loosestrife
2B		0	0	0	0	89 26.331	
2C		0	0	0	0		
3A	382-385	0	0	0	0	46 11.291	No Eurasian Milfoil, No Purple Loosestrife
3B		0	0	0	0	89 26.767	
3C		0	0	0	0		
0-Absent, 1-Presence less than half, 2-Equal compared to other species,							
3-Dominant, 4-Total infestation							
Note: All Transects are 40 feet in length and proceed away from shore in a direction perpendicular to the shoreline							

Appendix B: Sample Locations

Map A: Northern Lakes



Legend

- EWM Sample Locations
- EWM
- Purple Loosestrife



Map B: Thousand Island Lake



Legend



- EWM Sample Locations
- ✕ Eagle / Osprey Nest
- Purple Loosestrife

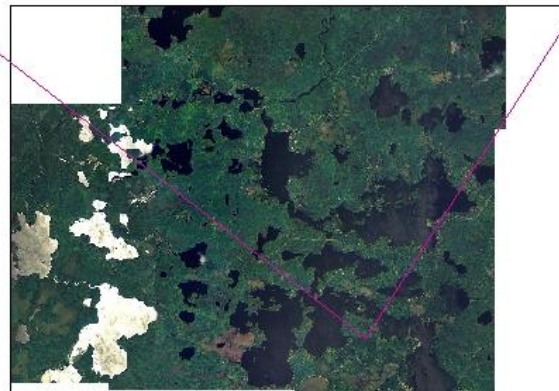


Map C: Middle Lakes

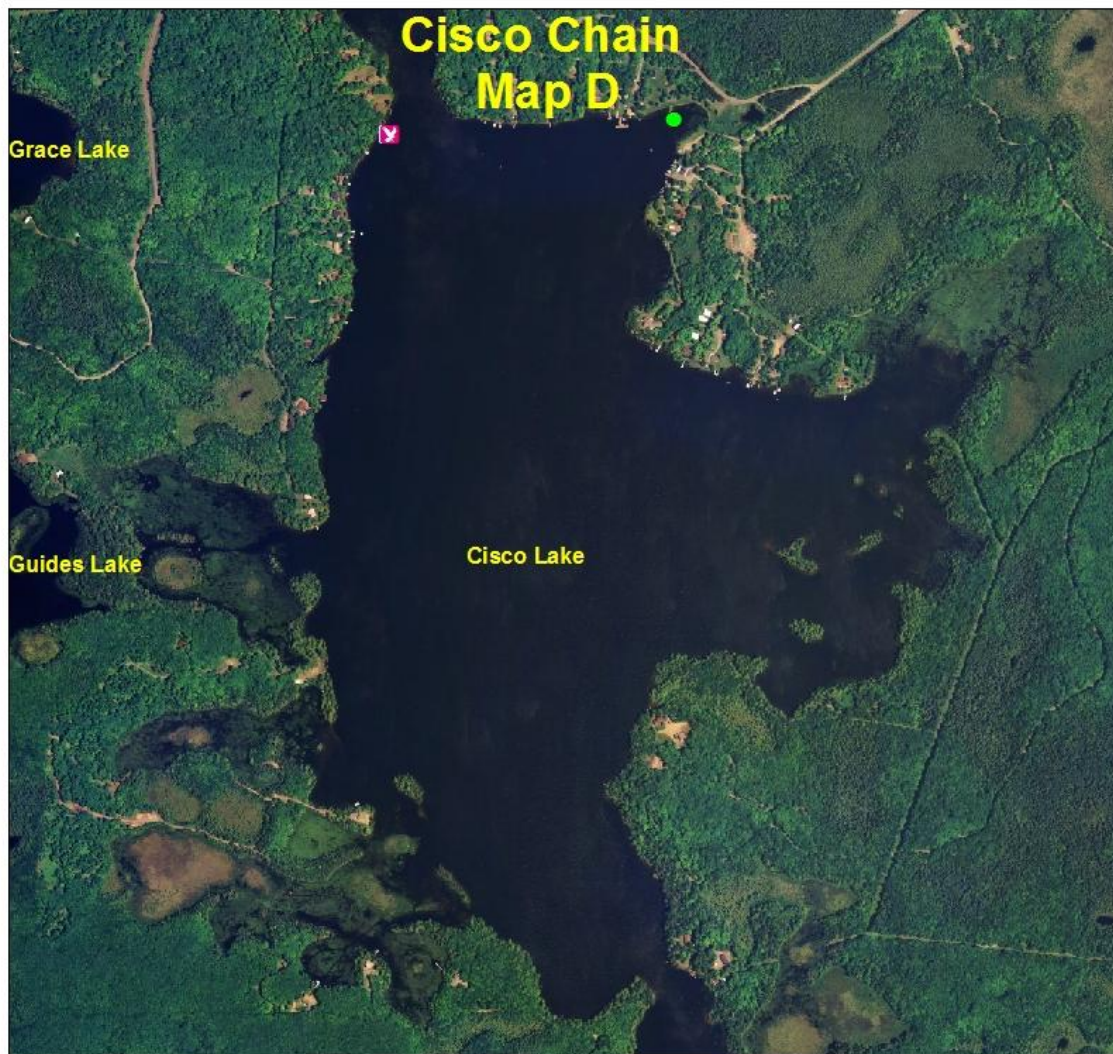


Legend

● EWM Sample Locations



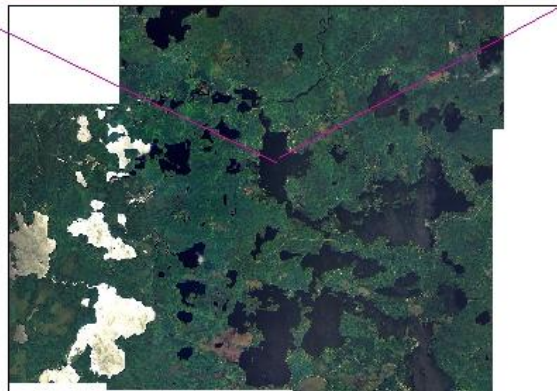
Map D: Cisco Lake



Legend



- EWM Sample Locations
- 🦅 Eagle / Osprey Nest



Map E: Big Lake

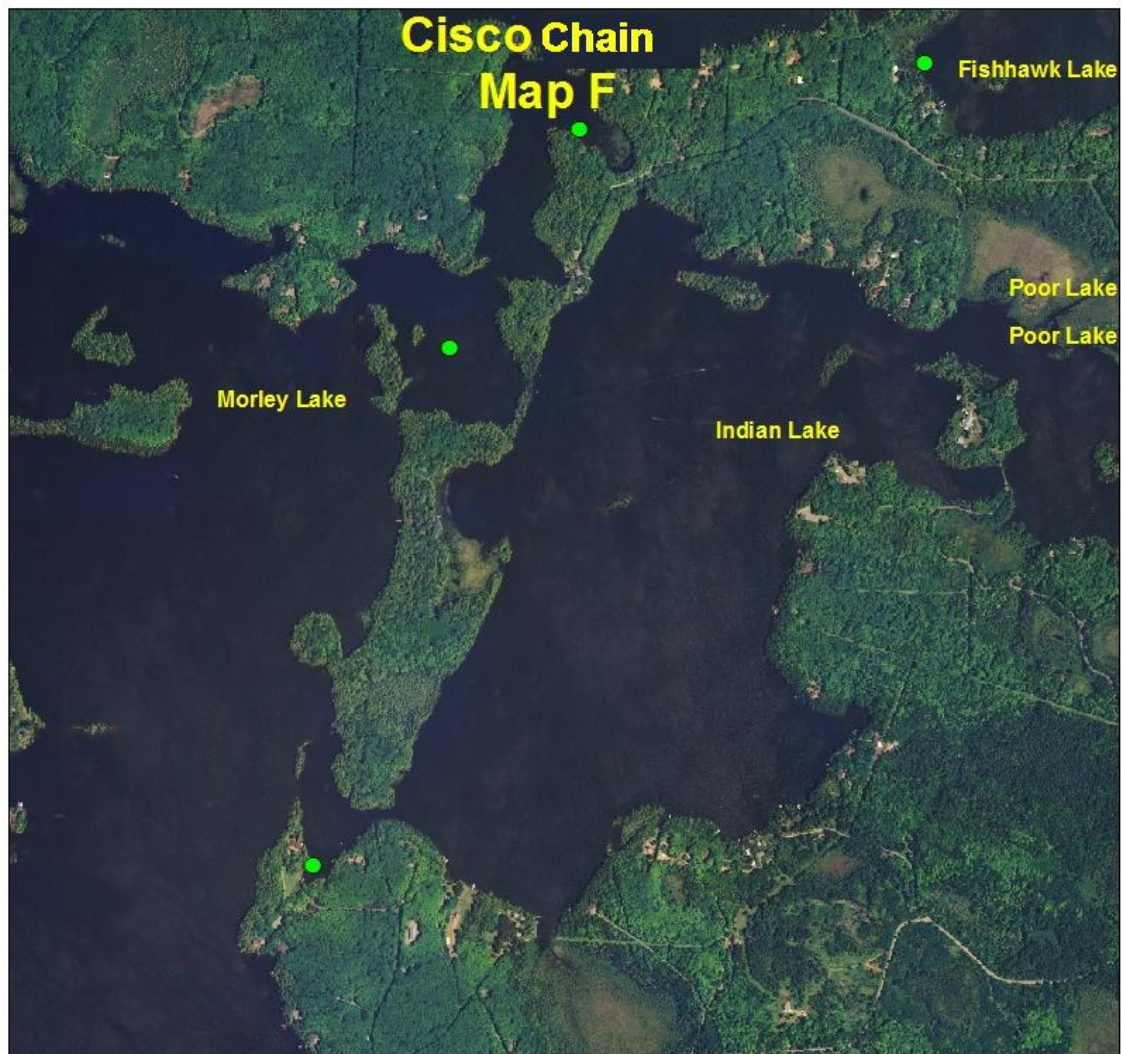


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- EWM Sample Locations

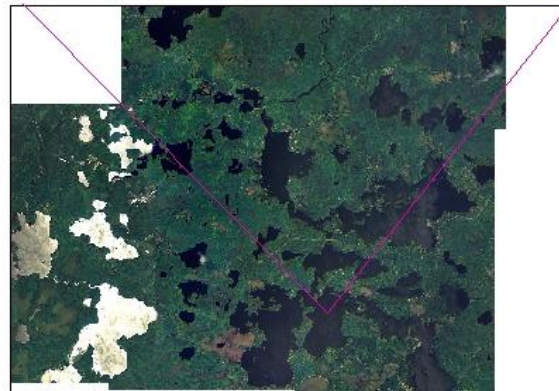


Map F: West Bay

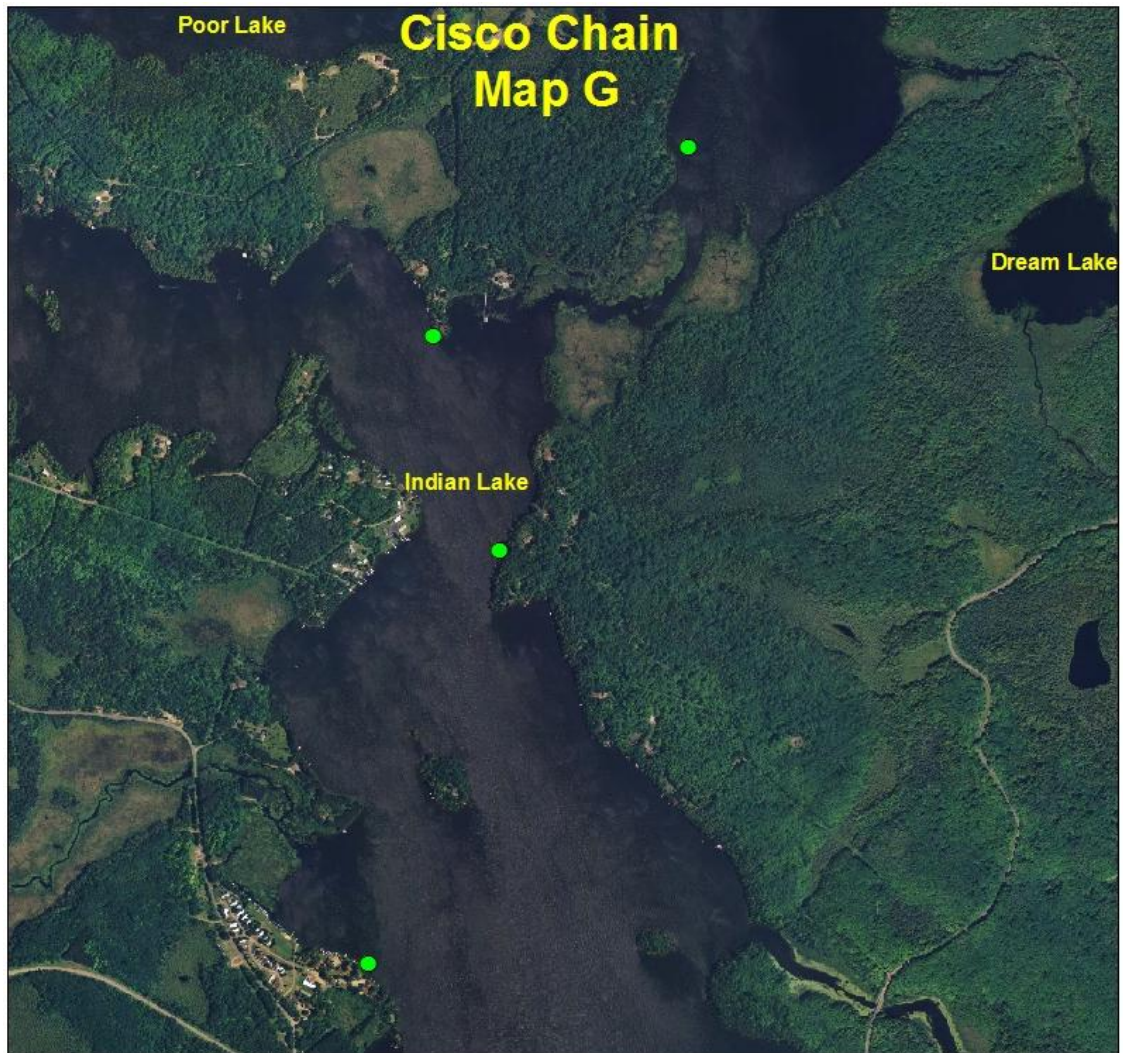


Legend

- EWM Sample Locations

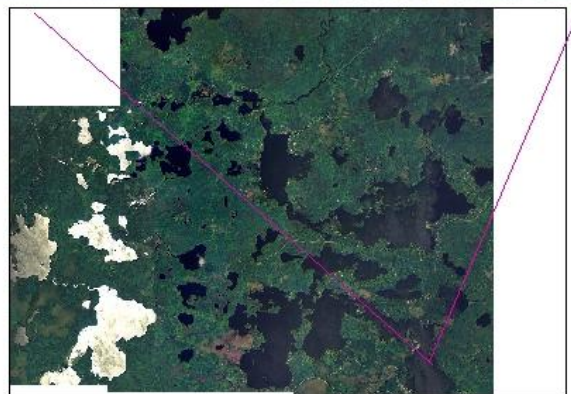


Map G: Mamie Lake



Legend

- EWM Sample Locations





Upper Peninsula Power Company

(a subsidiary of Integrys Energy Group)
700 North Adams Street
P.O. Box 19001
Green Bay, WI 54307-9001

October 11, 2010

Mr. Gene Mensch
KBIC – Natural Resources Department
HCRO1 Box 120
L'Anse, MI 49946

Dear Mr. Mensch:

FERC Project No. 1864

As per the FERC ordered Noxious Plants Monitoring Plan, Upper Peninsula Power Company (UPPCO) is required to submit the results of the Eurasian water milfoil (EWM) and purple loosestrife monitoring surveys for the Bond Falls Hydroelectric Project (FERC Project No. 1864).

UPPCO contracted the services of H2O in Motion, Inc. to complete EWM and purple loosestrife surveys for the Bond Falls Hydroelectric Project.

Purple loosestrife surveys were completed on July 24th – 26th, 2010 for the Bond Falls Hydroelectric Project. The surveys did identify the presence of purple loosestrife within the project boundary.

Seven colonies of purple loosestrife were identified as being located within the Bergland Development. Three colonies of 1-5 plants, two colonies of 6-50 plants, and two colonies of 50+ plants were observed.

In consultation with the Bond Falls Implementation Team (BFIT), UPPCO raised and released approximately 5,000 *Galerucella* beetles (beetles) on the south end of the reservoir next to existing purple loosestrife populations. The release was completed on July 7, 2010. The beetles were released to control purple loosestrife colonies identified during previous surveys.

During the purple loosestrife survey completed on July 24, 2010 for the Bergland Development, no signs of beetles or beetle feeding were observed on any of the purple loosestrife colonies.

UPPCO has consulted with experts familiar with *Galerucella* beetle releases concerning the lack of beetle and feeding observed at the Bergland Development. From these conversations, some ideas concerning why there is a lack of beetles observed at the reservoir included heavy predation on the beetle populations or simply needing more time for the beetles to become established.

Additionally, approximately 20 purple loosestrife plants were identified within the Cisco Chain of Lakes on Thousand Island Lake. The purple loosestrife plants were uprooted and removed from the site. An approved herbicide was then applied to the ground where the plants were originally found.

UPPCO will consultant with BFIT, to determine the most appropriate method of control for the 2011 field season.

Eurasian water milfoil surveys were also conducted from July 24th – 26th, 2010 for the Bond Falls Hydroelectric Project. EWM sample locations were surveyed and a meander sample for EWM was

completed throughout the Bond Falls Hydroelectric Project reservoirs. The surveys did not indicate the presence of Eurasian water milfoil at the Bond Falls Hydroelectric Projects.

However approximately ten EWM plants were identified within Clearwater Lake. Clearwater Lake is adjacent to the Cisco Chain of Lakes and is connected to the Cisco Chain of Lakes via a small creek outlet. The Clearwater Lake is however not within the Bond Falls Hydroelectric project boundary.

UPPCO will consult with the BFIT on the likelihood of EWM spread from Clearwater Lake to the other water bodies in the Cisco Chain of Lakes.

Appendix A includes the Bond Falls Reservoir, Victoria Falls Reservoir and Bergland Development EWM and purple loosestrife survey results report produced by H2O in Motion, Inc.

Appendix B includes EWM and purple loosestrife survey results report produced by H2O in Motion, Inc for the Cisco Chain of Lakes.

Should you have any questions relative to this material, please do not hesitate to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Ntuhals", with a stylized, cursive script.

James Ntuhals
Environmental Services-
Natural Resource Management
(920) 433-1460

Enc.

cc: Ms. Joan Johaneck, WPS - D2
Mr. Shawn Puzen, IBS – D2
Mr. Jim Melchiori, UPPCO - UVD



Upper Peninsula Power Company

(a subsidiary of Integrys Energy Group)
700 North Adams Street
P.O. Box 19001
Green Bay, WI 54307-9001

October 11, 2010

Ms. Jessica Mistak
Michigan Department of Natural Resources & Environment
488 Cherry Creek Road
Marquette, MI 49855-8999

Dear Ms. Mistak:

FERC Project No. 1864

As per the FERC ordered Noxious Plants Monitoring Plan, Upper Peninsula Power Company (UPPCO) is required to submit the results of the Eurasian water milfoil (EWM) and purple loosestrife monitoring surveys for the Bond Falls Hydroelectric Project (FERC Project No. 1864).

UPPCO contracted the services of H2O in Motion, Inc. to complete EWM and purple loosestrife surveys for the Bond Falls Hydroelectric Project.

Purple loosestrife surveys were completed on July 24th – 26th, 2010 for the Bond Falls Hydroelectric Project. The surveys did identify the presence of purple loosestrife within the project boundary.

Seven colonies of purple loosestrife were identified as being located within the Bergland Development. Three colonies of 1-5 plants, two colonies of 6-50 plants, and two colonies of 50+ plants were observed.

In consultation with the Bond Falls Implementation Team (BFIT), UPPCO raised and released approximately 5,000 *Galerucella* beetles (beetles) on the south end of the reservoir next to existing purple loosestrife populations. The release was completed on July 7, 2010. The beetles were released to control purple loosestrife colonies identified during previous surveys.

During the purple loosestrife survey completed on July 24, 2010 for the Bergland Development, no signs of beetles or beetle feeding were observed on any of the purple loosestrife colonies.

UPPCO has consulted with experts familiar with *Galerucella* beetle releases concerning the lack of beetle and feeding observed at the Bergland Development. From these conversations, some ideas concerning why there is a lack of beetles observed at the reservoir included heavy predation on the beetle populations or simply needing more time for the beetles to become established.

Additionally, approximately 20 purple loosestrife plants were identified within the Cisco Chain of Lakes on Thousand Island Lake. The purple loosestrife plants were uprooted and removed from the site. An approved herbicide was then applied to the ground where the plants were originally found.

UPPCO will consultant with BFIT, to determine the most appropriate method of control for the 2011 field season.

Eurasian water milfoil surveys were also conducted from July 24th – 26th, 2010 for the Bond Falls Hydroelectric Project. EWM sample locations were surveyed and a meander sample for EWM was

completed throughout the Bond Falls Hydroelectric Project reservoirs. The surveys did not indicate the presence of Eurasian water milfoil at the Bond Falls Hydroelectric Projects.

However approximately ten EWM plants were identified within Clearwater Lake. Clearwater Lake is adjacent to the Cisco Chain of Lakes and is connected to the Cisco Chain of Lakes via a small creek outlet. The Clearwater Lake is however not within the Bond Falls Hydroelectric project boundary.

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James Ntuhals
Environmental Services-
Natural Resource Management
(920) 433-1460

Enc.

cc: Ms. Joan Johaneck, WPS - D2
Mr. Shawn Puzen, IBS - D2
Mr. Jim Melchiori, UPPCO - UVD



Upper Peninsula Power Company

(a subsidiary of Integrys Energy Group)
700 North Adams Street
P.O. Box 19001
Green Bay, WI 54307-9001

October 11, 2010

Mr. Jim Schramm
Michigan Hydro Relicensing Coalition
1210 East Fifth Avenue
Houghton, MI 49931

Dear Mr. Schramm:

FERC Project No. 1864

As per the FERC ordered Noxious Plants Monitoring Plan, Upper Peninsula Power Company (UPPCO) is required to submit the results of the Eurasian water milfoil (EWM) and purple loosestrife monitoring surveys for the Bond Falls Hydroelectric Project (FERC Project No. 1864).

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Seven colonies of purple loosestrife were identified as being located within the Bergland Development. Three colonies of 1-5 plants, two colonies of 6-50 plants, and two colonies of 50+ plants were observed.

In consultation with the Bond Falls Implementation Team (BFIT), UPPCO raised and released approximately 5,000 *Galerucella* beetles (beetles) on the south end of the reservoir next to existing purple loosestrife populations. The release was completed on July 7, 2010. The beetles were released to control purple loosestrife colonies identified during previous surveys.

During the purple loosestrife survey completed on July 24, 2010 for the Bergland Development, no signs of beetles or beetle feeding were observed on any of the purple loosestrife colonies.

UPPCO has consulted with experts familiar with *Galerucella* beetle releases concerning the lack of beetle and feeding observed at the Bergland Development. From these conversations, some ideas concerning why there is a lack of beetles observed at the reservoir included heavy predation on the beetle populations or simply needing more time for the beetles to become established.

Additionally, approximately 20 purple loosestrife plants were identified within the Cisco Chain of Lakes on Thousand Island Lake. The purple loosestrife plants were uprooted and removed from the site. An approved herbicide was then applied to the ground where the plants were originally found.

UPPCO will consultant with BFIT, to determine the most appropriate method of control for the 2011 field season.

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James Ntuhals
Environmental Services-
Natural Resource Management
(920) 433-1460

Enc.

cc: Ms. Joan Johaneck, WPS - D2
Mr. Shawn Puzen, IBS – D2
Mr. Jim Melchiori, UPPCO - UVD



Upper Peninsula Power Company

(a subsidiary of Integrys Energy Group)
700 North Adams Street
P.O. Box 19001
Green Bay, WI 54307-9001

October 11, 2010

Mr. Norman Nass
United States Department of Agriculture – Forest Service
Old US Hwy 2 East
P.O. Box 276
Watersmeet, MI 49969

Dear Mr. Nass:

FERC Project No. 1864

As per the FERC ordered Noxious Plants Monitoring Plan, Upper Peninsula Power Company (UPPCO) is required to submit the results of the Eurasian water milfoil (EWM) and purple loosestrife monitoring surveys for the Bond Falls Hydroelectric Project (FERC Project No. 1864).

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James Ntuhals
Environmental Services-
Natural Resource Management
(920) 433-1460

Enc.

cc: Ms. Joan Johaneck, WPS - D2
Mr. Shawn Puzen, IBS – D2
Mr. Jim Melchiori, UPPCO - UVD



Upper Peninsula Power Company

(a subsidiary of Integrys Energy Group)
700 North Adams Street
P.O. Box 19001
Green Bay, WI 54307-9001

October 11, 2010

Ms. Christie Deloria-Sheffield
U.S. Fish & Wildlife Service
Upper Peninsula Sub-Office
Ecological Services
3090 Wright Street
Marquette, MI 49855

Dear Ms. Deloria-Sheffield:

FERC Project No. 1864

As per the FERC ordered Noxious Plants Monitoring Plan, Upper Peninsula Power Company (UPPCO) is required to submit the results of the Eurasian water milfoil (EWM) and purple loosestrife monitoring surveys for the Bond Falls Hydroelectric Project (FERC Project No. 1864).

UPPCO contracted the services of H2O in Motion, Inc. to complete EWM and purple loosestrife surveys for the Bond Falls Hydroelectric Project.

Purple loosestrife surveys were completed on July 24th – 26th, 2010 for the Bond Falls Hydroelectric Project. The surveys did identify the presence of purple loosestrife within the project boundary.

Seven colonies of purple loosestrife were identified as being located within the Bergland Development. Three colonies of 1-5 plants, two colonies of 6-50 plants, and two colonies of 50+ plants were observed.

In consultation with the Bond Falls Implementation Team (BFIT), UPPCO raised and released approximately 5,000 *Galerucella* beetles (beetles) on the south end of the reservoir next to existing purple loosestrife populations. The release was completed on July 7, 2010. The beetles were released to control purple loosestrife colonies identified during previous surveys.

During the purple loosestrife survey completed on July 24, 2010 for the Bergland Development, no signs of beetles or beetle feeding were observed on any of the purple loosestrife colonies.

UPPCO has consulted with experts familiar with *Galerucella* beetle releases concerning the lack of beetle and feeding observed at the Bergland Development. From these consultations, some ideas concerning why there is a lack of beetles observed at the reservoir included heavy predation on the beetle populations or simply needing more time for the beetles to become established.

Additionally, approximately 20 purple loosestrife plants were identified within the Cisco Chain of Lakes on Thousand Island Lake. The purple loosestrife plants were uprooted and removed from the site. An approved herbicide was then applied to the ground where the plants were originally found.

UPPCO will consult with BFIT, to determine the most appropriate method of control for the 2011 field season.

Eurasian water milfoil surveys were also conducted from July 24th – 26th, 2010 for the Bond Falls Hydroelectric Project. EWM sample locations were surveyed and a meander sample for EWM was completed throughout the Bond Falls Hydroelectric Project reservoirs. The surveys did not indicate the presence of Eurasian water milfoil at the Bond Falls Hydroelectric Projects.

However approximately ten EWM plants were identified within Clearwater Lake. Clearwater Lake is adjacent to the Cisco Chain of Lakes and is connected to the Cisco Chain of Lakes via a small creek outlet. The Clearwater Lake is however not within the Bond Falls Hydroelectric project boundary.

UPPCO will consult with the BFIT on the likelihood of EWM spread from Clearwater Lake to the other water bodies in the Cisco Chain of Lakes.

Appendix A includes the Bond Falls Reservoir, Victoria Falls Reservoir and Bergland Development EWM and purple loosestrife survey results report produced by H2O in Motion, Inc.

Appendix B includes EWM and purple loosestrife survey results report produced by H2O in Motion, Inc for the Cisco Chain of Lakes.

Should you have any questions relative to this material, please do not hesitate to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Ntuhals", written in a cursive style.

James Ntuhals
Environmental Services-
Natural Resource Management
(920) 433-1460

Enc.

cc: Ms. Joan Johaneck, WPS - D2
Mr. Shawn Puzen, IBS – D2
Mr. Jim Melchiori, UPPCO - UVD



Upper Peninsula Power Company

(a subsidiary of Integrys Energy Group)
700 North Adams Street
P.O. Box 19001
Green Bay, WI 54307-9001

October 11, 2010

Mr. Steve Gilbert
Wisconsin Department of Natural Resources
8770 Highway J
Woodruff, WI 54568

Dear Mr. Gilbert:

FERC Project No. 1864

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Purple loosestrife surveys were completed on July 24th – 26th, 2010 for the Bond Falls Hydroelectric Project. The surveys did identify the presence of purple loosestrife within the project boundary.

Seven colonies of purple loosestrife were identified as being located within the Bergland Development. Three colonies of 1-5 plants, two colonies of 6-50 plants, and two colonies of 50+ plants were observed.

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During the purple loosestrife survey completed on July 24, 2010 for the Bergland Development, no signs of beetles or beetle feeding were observed on any of the purple loosestrife colonies.

UPPCO has consulted with experts familiar with *Galerucella* beetle releases concerning the lack of beetle and feeding observed at the Bergland Development. From these conversations, some ideas concerning why there is a lack of beetles observed at the reservoir included heavy predation on the beetle populations or simply needing more time for the beetles to become established.

Additionally, approximately 20 purple loosestrife plants were identified within the Cisco Chain of Lakes on Thousand Island Lake. The purple loosestrife plants were uprooted and removed from the site. An approved herbicide was then applied to the ground where the plants were originally found.

UPPCO will consultant with BFIT, to determine the most appropriate method of control for the 2011 field season.

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completed throughout the Bond Falls Hydroelectric Project reservoirs. The surveys did not indicate the presence of Eurasian water milfoil at the Bond Falls Hydroelectric Projects.

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Appendix A includes the Bond Falls Reservoir, Victoria Falls Reservoir and Bergland Development EWM and purple loosestrife survey results report produced by H2O in Motion, Inc.

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James Ntuhals
Environmental Services-
Natural Resource Management
(920) 433-1460

Enc.

cc: Ms. Joan Johaneck, WPS - D2
Mr. Shawn Puzen, IBS – D2
Mr. Jim Melchiori, UPPCO - UVD

APPENDIX A

BOND FALLS RESERVOIR, VICTORIA FALLS RESERVOIR AND BERGLAND DEVELOPMENT EWM AND PURPLE LOOSESTRIFE SURVY RESULTS REPORT

Final Report

Upper Peninsula Power Company
Invasive Plant Species Survey
Ontonagon & Gogebic County, Michigan

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I. Introduction

The purpose of this survey was to identify possible sites of infestation of Eurasian Watermilfoil and Purple Loosestrife plants, and to determine the condition of previously confirmed sites. The areas included in this survey are the impoundment shorelines and adjoining wetlands of Bond Falls, Victoria Falls, and Lake Gogebic.

Myriophyllum spicatum, commonly known as Eurasian Watermilfoil, is an aquatic, non-native, invasive, freshwater plant. It is associated with the formation of thick mats of surface growth. Eurasian Watermilfoil closely resembles the native northern milfoil. The identifying characteristic between these two species is the native has 6 to 10 pairs of spikes per leaflet, while the Eurasian has 12 to 20 pairs of spikes per leaflet and is slightly darker in color.

Lythrum salicaria, commonly known as Purple Loosestrife, is an invasive, herbaceous, wetland perennial. Purple Loosestrife is identified by a stiff four-sided stem, opposite leaf arrangement, and a spike of purple flowers. Mature plants grow in a bushy arrangement with one to fifty stems.

II. Method

The method used to search for the presence of these species in the selected area is the inventory survey method. The purpose of an inventory survey is to establish whether the plants are in the identified area and, if so, the boundaries within which they are found. GPS points of locations to be surveyed were provided by UPPCO and were accessed by boat.

Specifically, this method consisted of accessing the specified sites and detecting the presence of Eurasian Watermilfoil or Purple Loosestrife. A meandering survey of the entire shoreline was also conducted to identify any additional sites of possible infestation. Once a specified sampling location or infested site was identified, it was photographed, marked by GPS, and recorded. Pictures were taken to document each species' presence in the area.

III. Results

The overall final results of this survey are listed below in Table 1.

Table 1: Final Results

Scientific Name	Common Name	Bond Falls	Lake Gogebic	Victoria Falls
<i>Myriophyllum spicatum</i>	Eurasian Watermilfoil	0	0	0
<i>Lythrum salicaria</i>	Purple Loosestrife	0	145+ plants	0

H₂O in Motion completed a survey of the requested locations, as well as a meandering survey of all accessible shoreline. All locations were surveyed for both Purple Loosestrife and Eurasian Watermilfoil. The results are listed in Appendix A for each respective lake.

Bond Falls

At the Bond Falls location proper invasive species signage was found at the boat launch and photographed. The level of the lake was down considerably due to draining of the reservoir. The current water level made it impossible to survey some of the requested GPS locations specified by UPPCO as they were no longer under water. The locations surveyed were taken as close as possible to the requested locations. Any other areas with indications of possible infestation were also surveyed. Maps of the sample locations can be found in Appendix B for each of the respective lakes. The green and purple dots only represent sample locations, not confirmation of the presence of invasive species. Of the areas surveyed at Bond Falls, none contained Purple Loosestrife or Eurasian Watermilfoil. Site pictures can be found in the enclosed file for each of the respective lakes.

Lake Gogebic

At Lake Gogebic no Eurasian Watermilfoil was found at any sites surveyed. Purple Loosestrife was found at all the sites listed in the 2009 survey with about the same population density. A new site was found with two plants at location 5 in Appendix A. No signs of beetle feeding were found at any of the sites.

Victoria Falls

At Victoria Falls no invasive species signage was found. No invasive species were found at any of the sample locations.

IV. Conclusion

H₂O in Motion found and identified the plants requested in this survey.

No Eurasian Watermilfoil was found in any of the lakes included in this survey. Purple Loosestrife was only found to occur on Lake Gogebic. The complete photo record is included as a separate enclosure. The pictures corresponding to each specific site are listed in Appendix A for each lake.

The visual observations taken at Lake Gogebic indicate no beetle activity present on any of the Purple Loosestrife plants. No removal/control actions were taken as requested.

Appendix A: Tables

Bond Falls

Date:	7/23/2010	Time:	6pm-8pm				
Lake:	Bond Falls	Surveyors:	Todd Macco, Ed Shaw				
Weather:	Clear	Condition:	Water Level Down, Reservoir Drained				
Eurasian Milfoil Survey							
Transect#	Pics	0-.5M	.5-1.5M	1.5-3.0M	>3.0M	Origin	Comments
1A	1-12	0	0	0	0	N46 23.801	No Purple Loosestrife, No Eurasian Milfoil
1B		0	0	0	0	W89 7.369	
1C		0	0	0	0		
2A	13-37	0	0	0	0	N46 24.170	No Purple Loosestrife, No Eurasian Milfoil
2B	32	0	0	0	0	W89 6.189	Native Milfoil, Thick Mat
2C		0	0	0	0		
3A	38-44	0	0	0	0	N46 24.308	No Purple Loosestrife, No Eurasian Milfoil
3B		0	0	0	0	W89 7.279	Native Milfoil
3C		0	0	0	0		
4A	45-47	0	0	0	0	N46 23.737	No Purple Loosestrife, No Eurasian Milfoil
4B		0	0	0	0	W89 7.777	Boat Launch
4C		0	0	0	0		
5A		0	0	0	0	N46 24.078	No Purple Loosestrife, No Eurasian Milfoil
5B		0	0	0	0	W89 6.169	
5C		0	0	0	0		
0-Absent, 1-Presence less than half, 2-Equal compared to other species,							
3-Dominant, 4-Total infestation							
Note: All Transects are 40 feet in length and proceed away from shore in a direction perpendicular to the shoreline							

Lake Gogebic

Date:	7/24/2010	Time:	8am-4pm				
Lake:	Gogebic	Surveyors:	Todd Macco, Ed Shaw				
Weather:	Rain	Condition:	Good				
Eurasian Milfoil Survey							
Transect#	Pics	0-5M	.5-1.5M	1.5-3.0M	>3.0M	Origin	Comments
1A	138-149	0	0	0	0	N46 27.650	No Purple Loosestrife, No Eurasian Milfoil
1B		0	0	0	0	W89 34.250	
1C		0	0	0	0		
2A	155-158	0	0	0	0	N46 32.957	No Purple Loosestrife, No Eurasian Milfoil
2B		0	0	0	0	W89 37.388	
2C		0	0	0	0		
3A	167-175	0	0	0	0	N46 35.297	No Purple Loosestrife, No Eurasian Milfoil
3B		0	0	0	0	W89 34.428	
3C		0	0	0	0		
4A	178-185	0	0	0	0	N46 28.288	No Purple Loosestrife, No Eurasian Milfoil,
4B		0	0	0	0	W89 31.877	
4C		0	0	0	0		
5A	201-206	0	0	0	0	N46 26.672	No Purple Loosestrife, No Eurasian Milfoil,
5B		0	0	0	0	W89 31.547	
5C		0	0	0	0		
0-Absent, 1-Presence less than half, 2-Equal compared to other species,							
3-Dominant, 4-Total infestation							
Note: All Transects are 40 feet in length and proceed away from shore in a direction perpendicular to the shoreline							

Purple Loosestrife Survey							
Site	Pics	Lat	Long	Amount	Comments		
1	48-70	N46 24.555	W89 33.089	B	No Eurasian Milfoil, 20 purple loosestrife plants, no signs of beetles		
2	71-99	N46 24.257	W89 33.297	0	No Purple Loosestrife, No Eurasian Milfoil,		
3	100-106	N46 24.440	W89 32.988	C	No Eurasian Milfoil, 50+ purple loosestrife plants, no signs of beetles,		
					Peat Bog Difficult Access		
4	110-121	N46 24.664	W89 32.508	C	No Eurasian Milfoil, 50+ purple loosestrife plants, no signs of beetles		
					Sites 4 and 5 of 2009 found to occur in same relative location		
5	122-125	N46 24.744	W89 32.382	A	No Eurasian Milfoil, 2 purple loosestrife plants, no signs of beetles		
					New Site not listed in 2009 Survey		
6	132-135	N46 24.763	W89 32.314	A	No Eurasian Milfoil, 1 purple loosestrife plants, no signs of beetles		
7	136-137	N46 24.697	W89 32.549	A	No Eurasian Milfoil, 2 purple loosestrife plants, no signs of beetles		
8	197-200	N46 27.550	W89 31.707	B	No Eurasian Milfoil, 20 purple loosestrife plants, no signs of beetles		
A-Small Colonies of 1-5 Plants							
B-Medium Colonies of 6-50 Plants							
C-Dense Colonies of >50 Plants							
0-Absent							

Lake Gogebic: Additional Sampling Sites

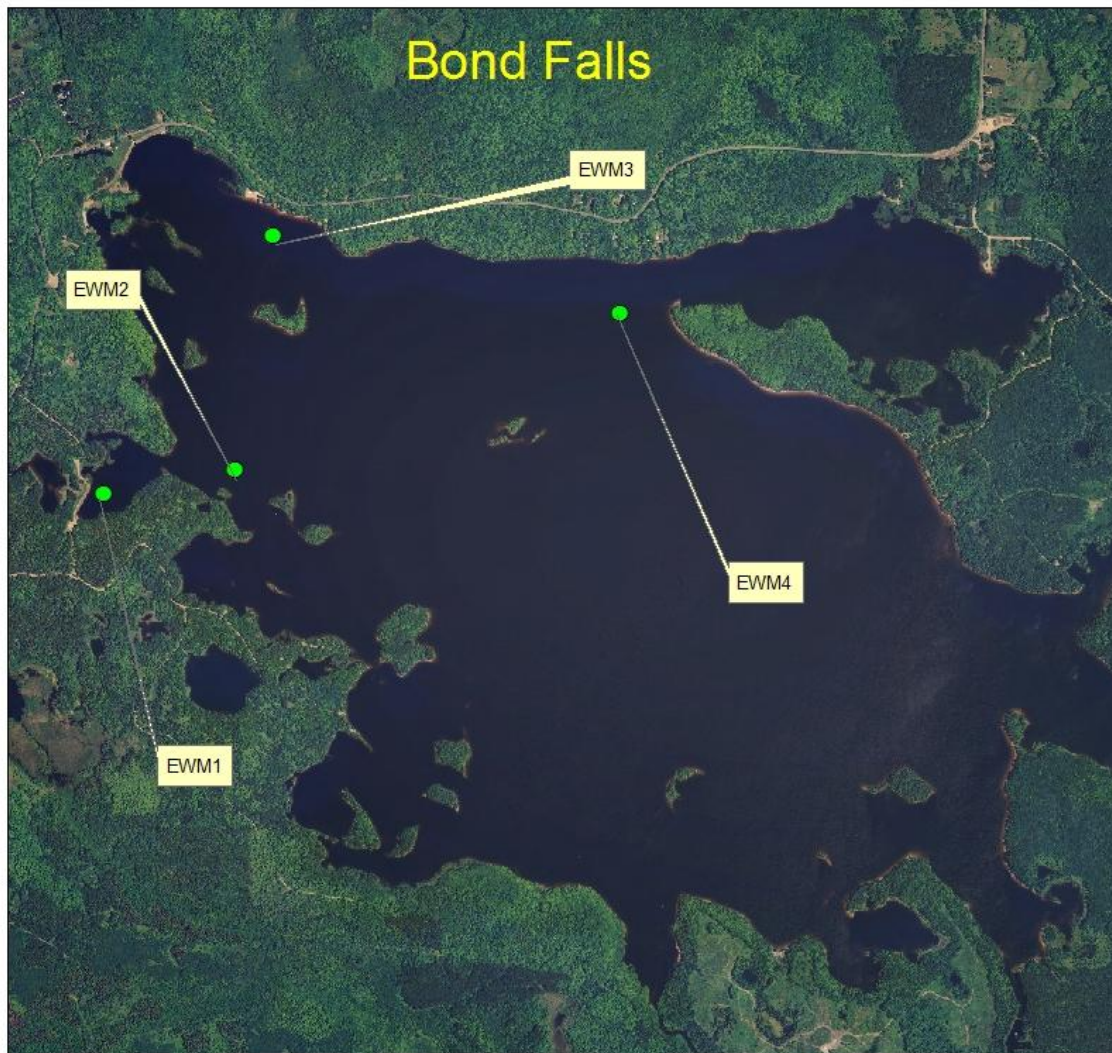
Additional Sites Surveyed at Lake Gogebic				
N46 34.728	Pics	No Purple Loosestrife, No Eurasian Milfoil		
W89 36.149				
N46 30.205	186-196	Eurasian Milfoil Check		
W89 36.048		No Purple Loosestrife, No Eurasian Milfoil		
N46 35.184	159-166	No Purple Loosestrife, No Eurasian Milfoil		
W89 33.580				
N46 31.244	150-154	No Purple Loosestrife, No Eurasian Milfoil		
W89 36.159				
N46 33.307		Purple Loosestrife Check		
W89 37.642		No Purple Loosestrife, No Eurasian Milfoil		
N46 24.078	176-177	No Purple Loosestrife, No Eurasian Milfoil		
W89 6.169				

Victoria Falls

Date:	7/24/2010	Time:	6pm-8pm				
Lake:	Victoria Falls	Surveyors:	Todd Macco, Ed Shaw				
Weather:	Clear	Lake Condi	Good				
Eurasian Milfoil Survey							
Transect#	Pics	0-.5M	.5-1.5M	1.5-3.0M	>3.0M	Origin	Comments
1A	207-213	0	0	0	0	N46 41.269	No Purple Loosestrife, No Eurasian Milfoil
1B	214-221	0	0	0	0	W89 13.827	No Signage
1C		0	0	0	0		
2A	236-237	0	0	0	0	N46 40.257	No Purple Loosestrife, No Eurasian Milfoil
2B	238-239	0	0	0	0	W89 15.021	
2C		0	0	0	0		
0-Absent, 1-Presence less than half, 2-Equal compared to other species,							
3-Dominant, 4-Total infestation							
Note: All Transects are 40 feet in length and proceed away from shore in a direction perpendicular to the shoreline							

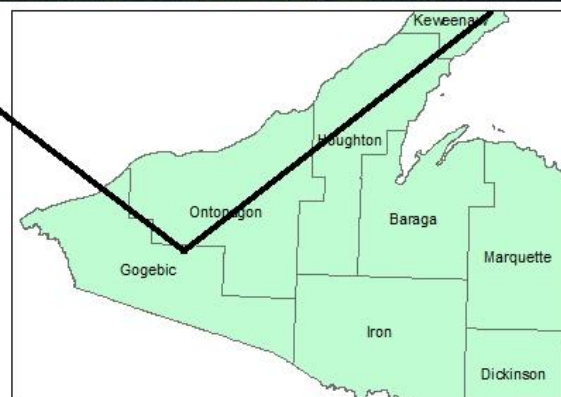
Appendix B: Sample Locations

Bond Falls



Legend

- EWM Sample Locations



Lake Gogebic

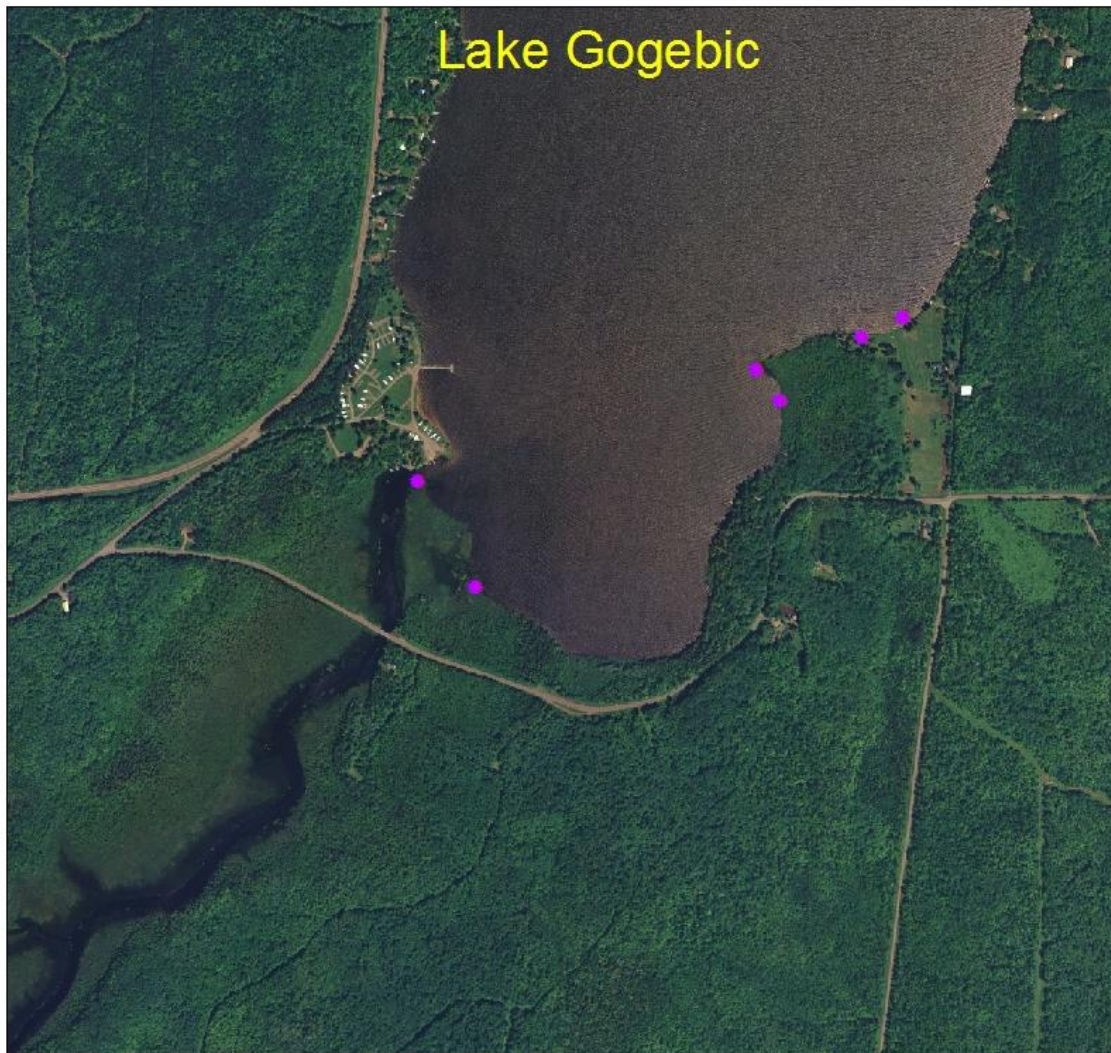


Legend

- EWM Sample Locations
- 🦅 Eagle / Osprey Nest
- Purple Loosestrife

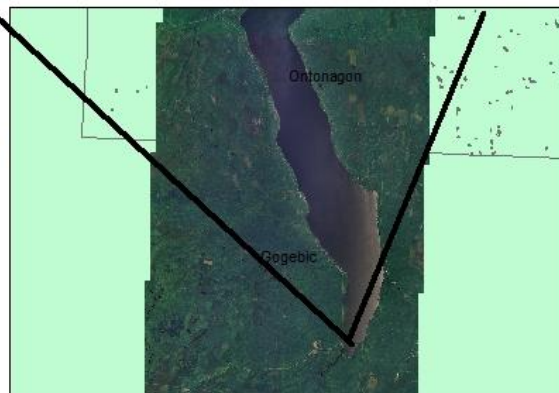


Lake Gogebic: Southern Points



Legend

- Purple Loosestrife

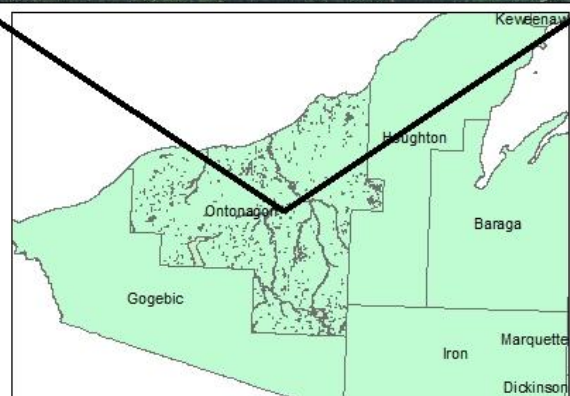


Victoria Falls



Legend

- EWM Sample Locations



APPENDIX B

CISCO CHAIN OF LAKES EWM AND PURPLE LOOSESTRIFE SURVY RESULTS REPORT

Final Report

Upper Peninsula Power Company
Invasive Plant Species Survey
Cisco Chain of Lakes
Watersmeet Michigan
Land O' Lakes, Wisconsin

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I. Introduction

The purpose of this survey was to identify possible sites of infestation of Eurasian Watermilfoil and Purple Loosestrife plants, and to determine the condition of previously confirmed sites. The areas included in this survey are the impoundment shorelines and adjoining wetlands of the Cisco Chain of Lakes.

Myriophyllum spicatum, commonly known as Eurasian Watermilfoil, is an aquatic, non-native, invasive, freshwater plant. It is associated with the formation of thick mats of surface growth. Eurasian Watermilfoil closely resembles the native northern milfoil. The identifying characteristic between these two species is the native has 6 to 10 pairs of spikes per leaflet, while the Eurasian has 12 to 20 pairs of spikes per leaflet and is slightly darker in color.

Lythrum salicaria, commonly known as Purple Loosestrife, is an invasive, herbaceous, wetland perennial. Purple Loosestrife is identified by a stiff four-sided stem, opposite leaf arrangement, and a spike of purple flowers. Mature plants grow in a bushy arrangement with one to fifty stems.

II. Method

The method used to search for the presence of these species in the selected area is the inventory survey method. The purpose of an inventory survey is to establish whether the plants are in the identified area and, if so, the boundaries within which they are found. General locations to be surveyed were provided by UPPCO and were accessed by boat.

Specifically, this method consisted of accessing the specified sites and detecting the presence of Eurasian Watermilfoil or Purple Loosestrife. A meandering survey of the entire shoreline was also conducted to identify any additional sites of possible infestation. Once a specified sampling location or infested site was identified it was photographed, marked by GPS, and recorded. Pictures were taken to document the presence of an invasive or nuisance species in the area.

III. Results

The overall final results of this survey are listed below in Table 1.

Table 1: Final Results

Scientific Name	Common Name	Clear Water	1000 Island	Other Lakes
<i>Myriophyllum spicatum</i>	Eurasian Watermilfoil	10	0	0
<i>Lythrum salicaria</i>	Purple Loosestrife	0	20	0

H₂O in Motion completed a survey of the requested locations, as well as a meandering survey of all accessible shoreline. All locations were surveyed for both Purple Loosestrife and Eurasian Watermilfoil. The results are listed in Appendix A for each respective lake. Maps of the locations surveyed can be found in Appendix B and Appendix C for each of the respective lakes. The green and purple dots only represent sample locations, not confirmation of the presence of invasive species. Site pictures can be found in Appendix D.

All boat landings had proper invasive species signage. The lakes surveyed included Thousand Island, Cisco, Big Africa, Record, Little Africa, Lindsley, Fish Hawk, Morley, Big, West Bay, East Bay, Mamie, Indian, Helen, and Clearwater.

Only two lakes were found to contain invasive species: Thousand Island and Clearwater. One site on Thousand Island contained an infestation of twenty Purple Loosestrife plants. No indications of beetle activity were observed. These plants were uprooted and disposed of, and the ground was then sprayed with 2% Rodeo herbicide. One site on Clearwater contained an infestation of approximately ten Eurasian Watermilfoil plants. This site was located on the South West shore of the lake. No indications of weevil activity were observed.

IV. Conclusion

H₂O in Motion found and identified the plants requested in this survey.

No indications of any insect controls were observed on the plants surveyed.

Appendix A: Tables

Clearwater

Date:	7/26/2010	Time:					
Lake:	Clearwater	Surveyors:	Todd Macco, Larry Sundling				
Weather:	Clear	Condition:	Good				
Eurasian Milfoil Survey							
Transect#	Pics	0-.5M	.5-1.5M	1.5-3.0M	>3.0M	Origin	Comments
1A	395-402	0	0	0	0	46 15.705	No Eurasian Milfoil, No Purple Loosestrife
1B		0	0	0	0	89 24.636	
1C		0	0	0	0		
2A		0	0	0	0	46 15.709	No Eurasian Milfoil, No Purple Loosestrife
2B		0	0	0	0	89 24.669	
2C		0	0	0	0		
3A		0	0	0	0	46 15.108	No Eurasian Milfoil, No Purple Loosestrife
3B		0	0	0	0	89 24.648	
3C		0	0	0	0		
4A	403-410	0	1	0	0	46 15.092	Eurasian Milfoil Confirmed,
4B		0	1	0	0	89 24.710	No clumps only few single plants,
4C		0	1	0	0		all submerged no surface growth
5A	411-420	0	0	0	0	46 15.357	Stream Channel, Sandy Bottom, No Milfoil
5B		0	0	0	0	89 24.261	No Eurasian Milfoil, No Purple Loosestrife
5C		0	0	0	0		
0-Absent, 1-Presence less than half, 2-Equal compared to other species,							
3-Dominant, 4-Total infestation							
Note: All Transects are 40 feet in length and proceed away from shore in a direction perpendicular to the shoreline							

Thousand Island: Purple Loosestrife

Purple Loosestrife Survey			Lake: Thousand Island				
Site	Pics	Lat	Long	Amount	Comments		
1	291	46 14.276	89 23.923	B	Purple Loosestrife, 10 plants, pulled and Sprayed		
2	292	46 14.283	89 23.906	B	Purple Loosestrife, 10plants, pulled and Sprayed		
A-Small Colonies of 1-5 Plants							
B-Medium Colonies of 6-50 Plants							
C-Dense Colonies of >50 Plants							
0-Absent							

Thousand Island

Date:	7/25/2010	Time:					
Lake:	1000 Island	Surveyors:	Todd Macco, Ed Shaw, Larry Sundling				
Weather:	Clear	Condition:	Good				
Eurasian Milfoil Survey							
Transect#	Pics	0-.5M	.5-1.5M	1.5-3.0M	>3.0M	Origin	Comments
1A	240-247	0	0	0	0	46 13.780	No Purple Loosestrife, No Eurasian Milfoil
1B		0	0	0	0	89 23.503	
1C		0	0	0	0		
2A	248-249	0	0	0	0	46 13.684	No Purple Loosestrife, No Eurasian Milfoil
2B	250-252	0	0	0	0	89 23.658	
2C		0	0	0	0		
3A	253-255	0	0	0	0	46 13.295	No Purple Loosestrife, No Eurasian Milfoil
3B		0	0	0	0	89 23.792	
3C		0	0	0	0		
4A	264-270	0	0	0	0	46 13.741	No Purple Loosestrife, No Eurasian Milfoil
4B		0	0	0	0	89 25.593	
4C		0	0	0	0		
5A	273-284	0	0	0	0	46 14.845	No Purple Loosestrife, No Eurasian Milfoil
5B		0	0	0	0	89 26.598	
5C		0	0	0	0		
6A	293-296	0	0	0	0	46 13.926	No Purple Loosestrife, No Eurasian Milfoil
6B		0	0	0	0	89 22.844	
6C		0	0	0	0		
7A	256-257	0	0	0	0	46 13.318	Sample Native Milfoil
7B		0	0	0	0	89 24.501	No Purple Loosestrife, No Eurasian Milfoil
7C		0	0	0	0		
8A	285-290	0	0	0	0	46 13.411	Native milfoil infestation
8B		0	0	0	0	89 25.090	No Purple Loosestrife, No Eurasian Milfoil
8C		0	0	0	0		
9A	258-261	0	0	0	0	46 13.473	
9B		0	0	0	0	89 25.126	No Purple Loosestrife, No Eurasian Milfoil
9C		0	0	0	0		
10A		0	0	0	0	46 14.537	No Purple Loosestrife, No Eurasian Milfoil
10B		0	0	0	0	89 26.356	
10C		0	0	0	0		
11A	271-272	0	0	0	0	46 13.697	No Purple Loosestrife, No Eurasian Milfoil
11B		0	0	0	0	89 26.325	
11C		0	0	0	0		
0-Absent, 1-Presence less than half, 2-Equal compared to other species,							
3-Dominant, 4-Total infestation							
Note: All Transects are 40 feet in length and proceed away from shore in a direction perpendicular to the shoreline							

West Bay

Date:	7/26/2010	Time:					
Lake:	West Bay	Surveyors:	Todd Macco, Larry Sundling				
Weather:	Clear	Condition:	Good				
Eurasian Milfoil Survey							
Transect#	Pics	0-.5M	.5-1.5M	1.5-3.0M	>3.0M	Origin	Comments
1A	347-350	0	0	0	0	46 12.119	Massive Native Milfoil Infest
1B		0	0	0	0	89 26.113	No Purple Loosestrife, No Eurasian Milfoil
1C		0	0	0	0		
0-Absent, 1-Presence less than half, 2-Equal compared to other species,							
3-Dominant, 4-Total infestation							
Note: All Transects are 40 feet in length and proceed away from shore in a direction perpendicular to the shoreline							

Record

Date:	7/25/2010	Time:					
Lake:	Record	Surveyors:	Todd Macco, Larry Sundling				
Weather:	Clear	Condition:	Good				
Eurasian Milfoil Survey							
Transect#	Pics	0-.5M	.5-1.5M	1.5-3.0M	>3.0M	Origin	Comments
1A	297-300	0	0	0	0	46 15.168	Large Native Milfoil Infest
1B		0	0	0	0	89 23.485	No Purple Loosestrife, No Eurasian Milfoil
1C		0	0	0	0		
0-Absent, 1-Presence less than half, 2-Equal compared to other species,							
3-Dominant, 4-Total infestation							
Note: All Transects are 40 feet in length and proceed away from shore in a direction perpendicular to the shoreline							

Morley

Date:	7/25/2010	Time:					
Lake:	Morley	Surveyors:	Todd Macco, Larry Sundling				
Weather:	Clear	Condition:	Good				
Eurasian Milfoil Survey							
Transect#	Pics	0-.5M	.5-1.5M	1.5-3.0M	>3.0M	Origin	Comments
1A	332-336	0	0	0	0	46 12.507	No Purple Loosestrife, No Eurasian Milfoil
1B		0	0	0	0	89 26.180	
1C		0	0	0	0		
0-Absent, 1-Presence less than half, 2-Equal compared to other species,							
3-Dominant, 4-Total infestation							
Note: All Transects are 40 feet in length and proceed away from shore in a direction perpendicular to the shoreline							

Mamie

Date:	7/26/2010	Time:					
Lake:	Mamie	Surveyors:	Todd Macco, Larry Sundling				
Weather:	Clear	Condition:	Good				
Eurasian Milfoil Survey							
Transect#	Pics	0-.5M	.5-1.5M	1.5-3.0M	>3.0M	Origin	Comments
1A	358-362	0	0	0	0	46 11.928	No Eurasian Milfoil, No Purple Loosestrife
1B		0	0	0	0	89 23.623	
1C		0	0	0	0		
2A	363-377	0	0	0	0	46 11.321	No Eurasian Milfoil, No Purple Loosestrife
2B		0	0	0	0	89 22.858	
2C		0	0	0	0		
3A	378-381	0	0	0	0	46 11.343	No Eurasian Milfoil, No Purple Loosestrife
3B		0	0	0	0	89 23.838	
3C		0	0	0	0		
0-Absent, 1-Presence less than half, 2-Equal compared to other species,							
3-Dominant, 4-Total infestation							
Note: All Transects are 40 feet in length and proceed away from shore in a direction perpendicular to the shoreline							

Little Africa

Date:	7/25/2010	Time:					
Lake:	Little Africa	Surveyors:	Todd Macco, Larry Sundling				
Weather:	Clear	Condition:	Good				
Eurasian Milfoil Survey							
Transect#	Pics	0-.5M	.5-1.5M	1.5-3.0M	>3.0M	Origin	Comments
1A	304-310	0	0	0	0	46 15.212	No Eurasian Milfoil, No Purple Loosestrife
1B		0	0	0	0	89 24.223	
1C		0	0	0	0		
0-Absent, 1-Presence less than half, 2-Equal compared to other species,							
3-Dominant, 4-Total infestation							
Note: All Transects are 40 feet in length and proceed away from shore in a direction perpendicular to the shoreline							

Lindsley

Date:	7/25/2010	Time:					
Lake:	Lindsley	Surveyors:	Todd Macco, Larry Sundling				
Weather:	Clear	Condition:	Good				
Eurasian Milfoil Survey							
Transect#	Pics	0-.5M	.5-1.5M	1.5-3.0M	>3.0M	Origin	Comments
1A	311-316	0	0	0	0	46 13.382	No Purple Loosestrife, No Eurasian Milfoil
1B		0	0	0	0	89 25.740	
1C		0	0	0	0		
0-Absent, 1-Presence less than half, 2-Equal compared to other species,							
3-Dominant, 4-Total infestation							
Note: All Transects are 40 feet in length and proceed away from shore in a direction perpendicular to the shoreline							

Indian

Date:	7/26/2010	Time:					
Lake:	Indian	Surveyors:	Todd Macco, Larry Sundling				
Weather:	Clear	Condition:	Good				
Eurasian Milfoil Survey							
Transect#	Pics	0-.5M	.5-1.5M	1.5-3.0M	>3.0M	Origin	Comments
1A	353-357	0	0	0	0	46 12.501	No Purple Loosestrife, No Eurasian Milfoil
1B		0	0	0	0	89 23.281	
1C		0	0	0	0		
0-Absent, 1-Presence less than half, 2-Equal compared to other species,							
3-Dominant, 4-Total infestation							
Note: All Transects are 40 feet in length and proceed away from shore in a direction perpendicular to the shoreline							

Helen

Date:	7/26/2010	Time:					
Lake:	Helen	Surveyors:	Todd Macco, Larry Sundling				
Weather:	Clear	Condition:	Good				
Eurasian Milfoil Survey							
Transect#	Pics	0-.5M	.5-1.5M	1.5-3.0M	>3.0M	Origin	Comments
1A	386-390	0	0	0	0	46 11.239	No Purple Loosestrife, No Eurasian Milfoil
1B	391-394	0	0	0	0	89 24.710	
1C		0	0	0	0		
0-Absent, 1-Presence less than half, 2-Equal compared to other species,							
3-Dominant, 4-Total infestation							
Note: All Transects are 40 feet in length and proceed away from shore in a direction perpendicular to the shoreline							

East Bay

Date:	7/26/2010	Time:					
Lake:	East Bay	Surveyors:	Todd Macco, Larry Sundling				
Weather:	Clear	Condition:	Good				
Eurasian Milfoil Survey							
Transect#	Pics	0-.5M	.5-1.5M	1.5-3.0M	>3.0M	Origin	Comments
1A	351-352	0	0	0	0	46 12.218	No Purple Loosestrife, No Eurasian Milfoil
1B		0	0	0	0	89 23.773	
1C		0	0	0	0		
0-Absent, 1-Presence less than half, 2-Equal compared to other species,							
3-Dominant, 4-Total infestation							
Note: All Transects are 40 feet in length and proceed away from shore in a direction perpendicular to the shoreline							

Cisco

Date:	7/25/2010	Time:					
Lake:	Cisco	Surveyors:	Todd Macco, Ed Shaw, Larry Sundling				
Weather:	Clear	Condition:	Good				
Eurasian Milfoil Survey							
Transect#	Pics	0-.5M	.5-1.5M	1.5-3.0M	>3.0M	Origin	Comments
1A		0	0	0	0	46 14.811	No Purple Loosestrife, No Eurasian Milfoil
1B		0	0	0	0	89 27.048	
1C		0	0	0	0		
0-Absent, 1-Presence less than half, 2-Equal compared to other species,							
3-Dominant, 4-Total infestation							

Fish Hawk

Date:	7/25/2010	Time:					
Lake:	Fish Hawk	Surveyors:	Todd Macco, Larry Sundling				
Weather:	Clear	Condition:	Good				
Eurasian Milfoil Survey							
Transect#	Pics	0-.5M	.5-1.5M	1.5-3.0M	>3.0M	Origin	Comments
1A	317-325	0	0	0	0	46 12.859	No Eurasian Milfoil, No Purple Loosestrife
1B		0	0	0	0	89 25.078	
1C	326-327	0	0	0	0		
2A		0	0	0	0	46 12.936	Eurasian Milfoil Sample: Native
2B		0	0	0	0	89 25.176	No Eurasian Milfoil, No Purple Loosestrife
2C	328-331	0	0	0	0		
3A		0	0	0	0	46 12.820	No Eurasian Milfoil, No Purple Loosestrife
3B		0	0	0	0	89 25.868	
3C		0	0	0	0		
4A		0	0	0	0	46 12.905	No Eurasian Milfoil, No Purple Loosestrife
4B		0	0	0	0	89 25.139	
4C		0	0	0	0		
0-Absent, 1-Presence less than half, 2-Equal compared to other species,							
3-Dominant, 4-Total infestation							
Note: All Transects are 40 feet in length and proceed away from shore in a direction perpendicular to the shoreline							

Big Africa

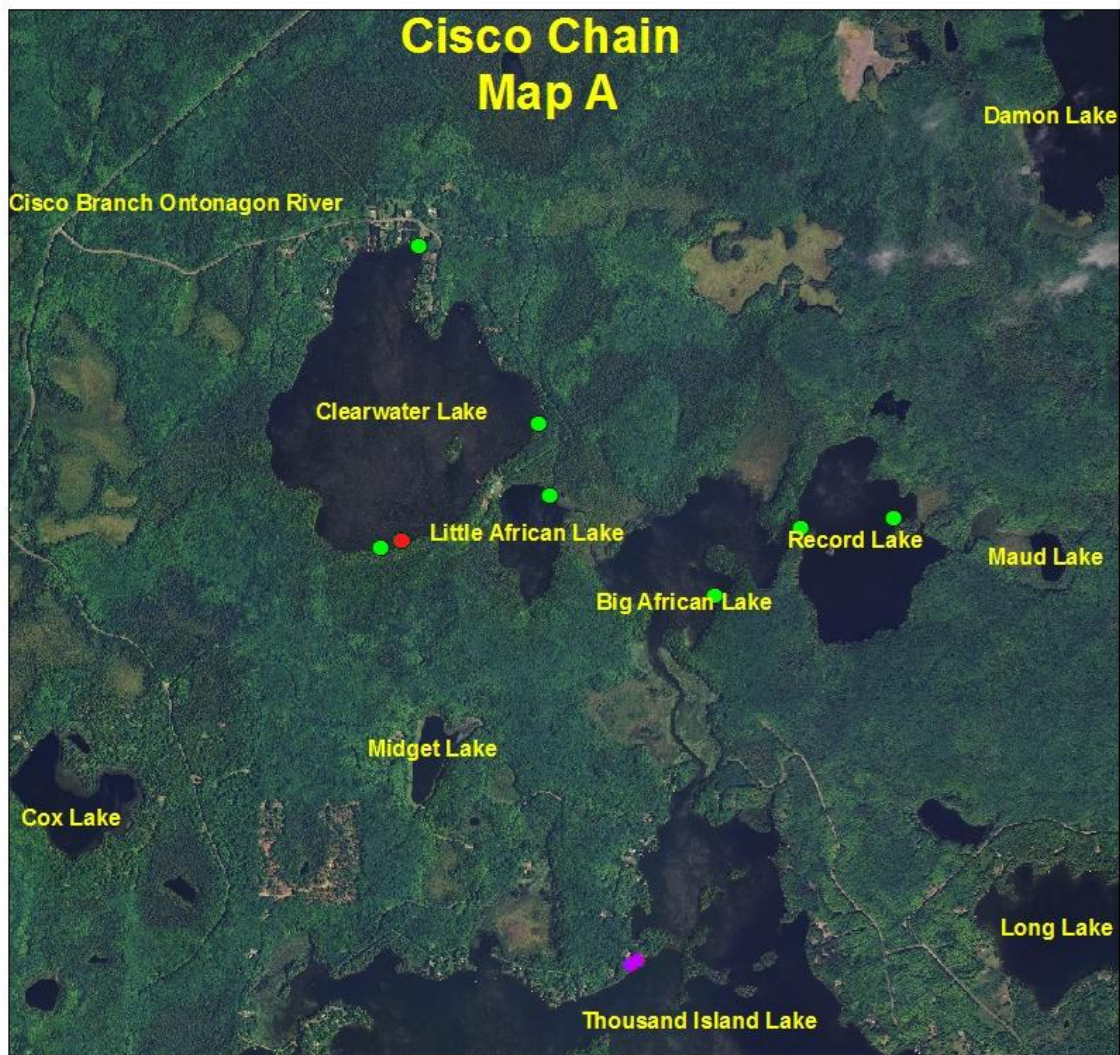
Date:	7/25/2010	Time:					
Lake:	Big Africa	Surveyors:	Todd Macco, Ed Shaw, Larry Sundling				
Weather:	Clear	Condition:	Good				
Eurasian Milfoil Survey							
Transect#	Pics	0-.5M	.5-1.5M	1.5-3.0M	>3.0M	Origin	Comments
1A	301-303	0	0	0	0	46 15.024	No Eurasian Milfoil, No Purple Loosestrife
1B		0	0	0	0	89 23.730	
1C		0	0	0	0		
2A		0	0	0	0	46 15.197	No Eurasian Milfoil, No Purple Loosestrife
2B		0	0	0	0	89 23.218	
2C		0	0	0	0		
3A		0	0	0	0	46 14.003	No Eurasian Milfoil, No Purple Loosestrife
3B		0	0	0	0	89 23.208	Large Native Mat
3C		0	0	0	0		
0-Absent, 1-Presence less than half, 2-Equal compared to other species,							
3-Dominant, 4-Total infestation							
Note: All Transects are 40 feet in length and proceed away from shore in a direction perpendicular to the shoreline							

Big Lake

Date:	7/26/2010	Time:					
Lake:	Big Lake	Surveyors:	Todd Macco, Larry Sundling				
Weather:	Clear	Condition:	Good				
Eurasian Milfoil Survey							
Transect#	Pics	0-.5M	.5-1.5M	1.5-3.0M	>3.0M	Origin	Comments
1A	337-344	0	0	0	0	46 12.197	No Eurasian Milfoil, No Purple Loosestrife
1B		0	0	0	0	89 27.651	
1C		0	0	0	0		
2A	345-346	0	0	0	0	46 11.779	No Eurasian Milfoil, No Purple Loosestrife
2B		0	0	0	0	89 26.331	
2C		0	0	0	0		
3A	382-385	0	0	0	0	46 11.291	No Eurasian Milfoil, No Purple Loosestrife
3B		0	0	0	0	89 26.767	
3C		0	0	0	0		
0-Absent, 1-Presence less than half, 2-Equal compared to other species,							
3-Dominant, 4-Total infestation							
Note: All Transects are 40 feet in length and proceed away from shore in a direction perpendicular to the shoreline							

Appendix B: Sample Locations

Map A: Northern Lakes



Legend

- EWM Sample Locations
- EWM
- Purple Loosestrife



Map B: Thousand Island Lake



Legend



- EWM Sample Locations
- ✕ Eagle / Osprey Nest
- Purple Loosestrife

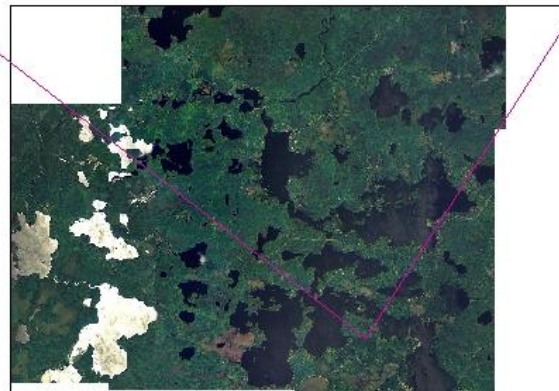


Map C: Middle Lakes

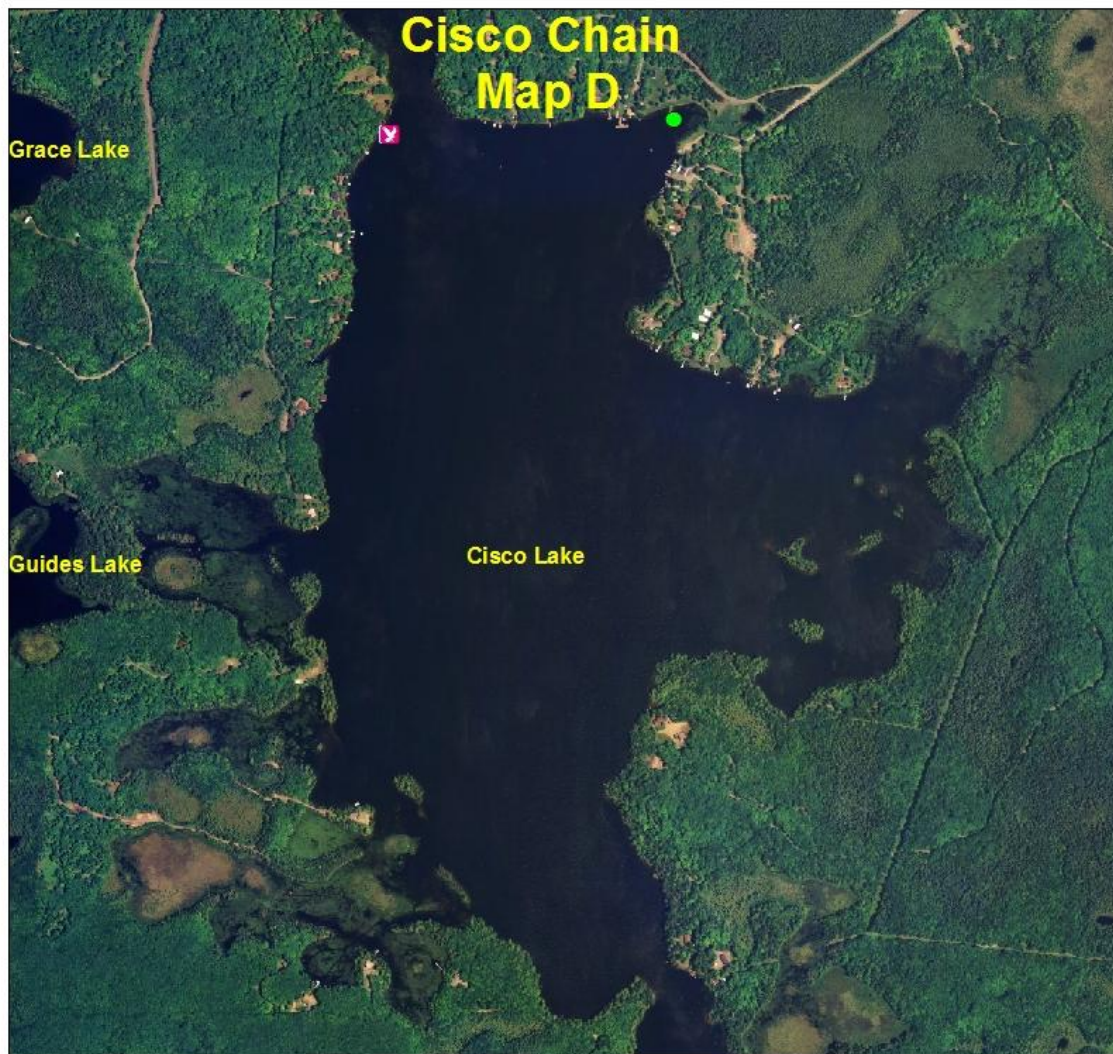


Legend

● EWM Sample Locations





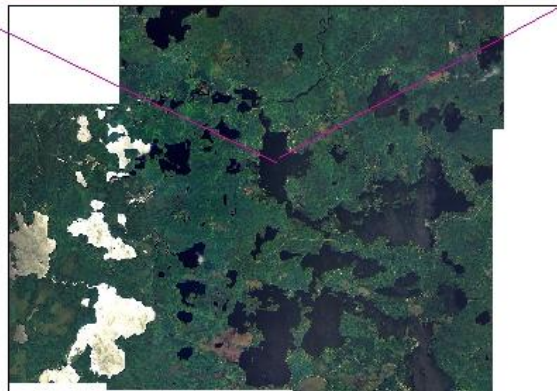
Map D: Cisco Lake



Legend



-  EWM Sample Locations
-  Eagle / Osprey Nest

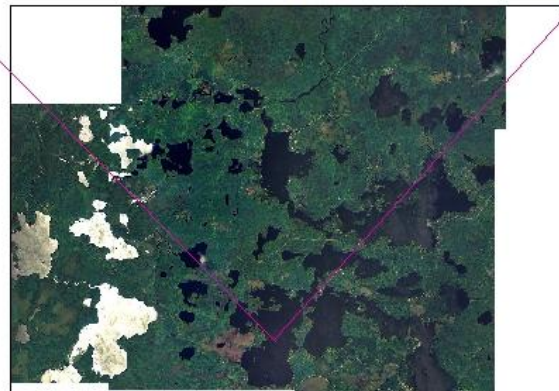


Map E: Big Lake



Legend

- EWM Sample Locations

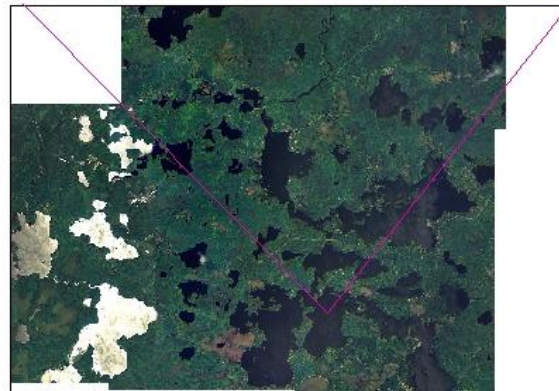


Map F: West Bay

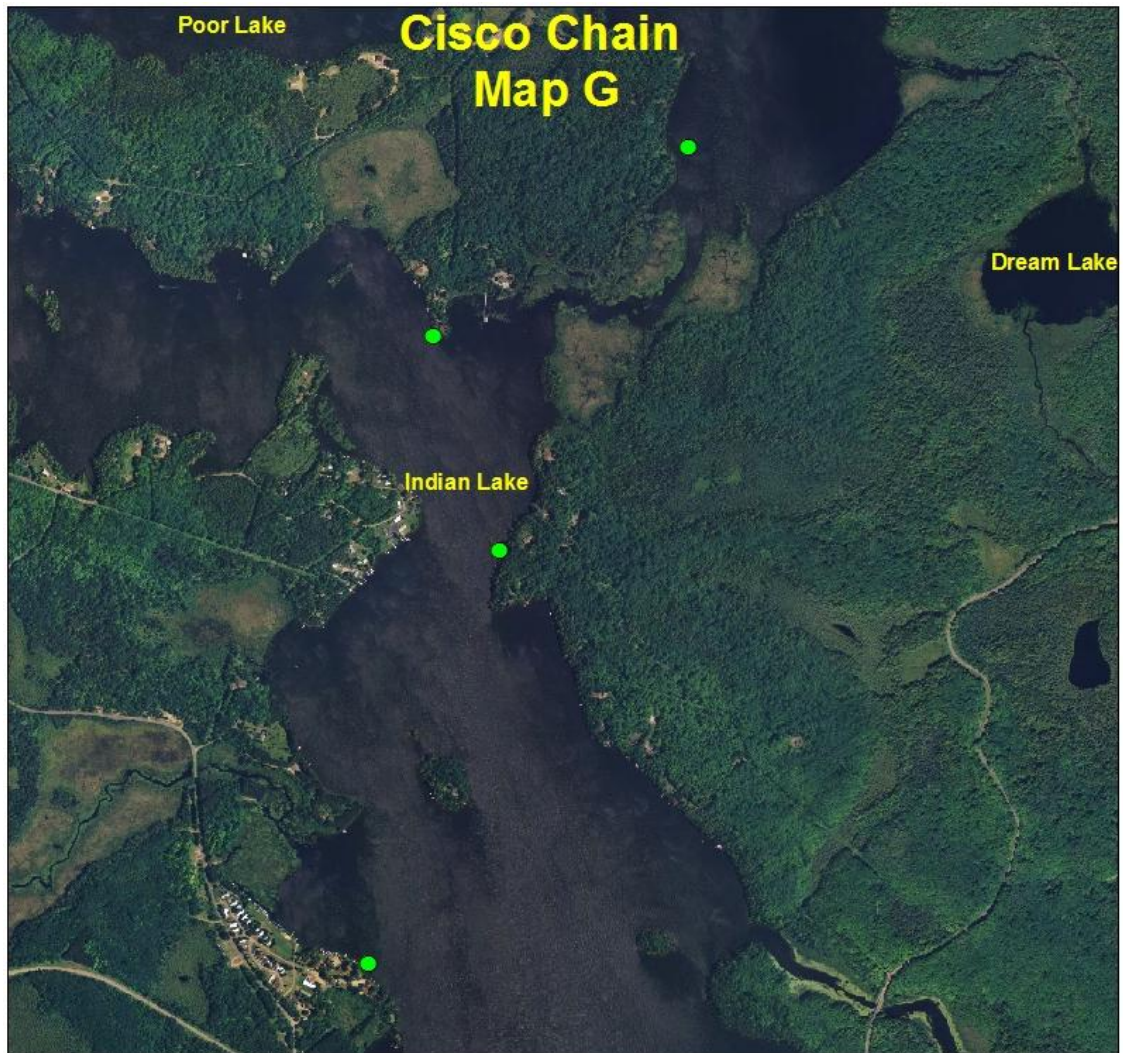


Legend

- EWM Sample Locations



Map G: Mamie Lake



Legend

- EWM Sample Locations

