



Upper Peninsula Power Company

500 North Washington Street

Ishpeming, MI 49849

www.UPPCO.com

December 26, 2014

FERC Project No. 1864

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

Dear Secretary Bose:

Bond Falls Hydroelectric Project

Article 411 Noxious Plants Monitoring Plan – 2014 Purple Loosestrife and Eurasian Water
Milfoil Survey Results and Five Year EWM Monitoring Report and Cisco Chain of Lakes
Nuisance Plant Control Plan Results

As per the Federal Energy Regulatory Commission (FERC) Order Modifying and Approving Article 411 Nuisance Plant Control Plan issued February 24, 2005, the Upper Peninsula Power Company (UPPCO) is required to submit the results of the purple loosestrife (PL) and Eurasian water milfoil (EWM) monitoring surveys for the Bond Falls Hydroelectric Project (FERC Project No. 1864) to the Bond Falls Implementation Team (BFIT).

In addition, per the FERC Order Modifying and Approving the Five-Year Report for EWM at the Bond Falls (FERC Project No. 1864-01), Victoria Falls (FERC Project No. 1864-02) and the Bergland Development (FERC Project No. 1864), dated May 5, 2011, UPPCO is to submit the five-year EWM survey results. The monitoring report shall contain a comparison of all data and a recommendation for the frequency of future EWM monitoring.

Finally, per the Notice of Proposed Changes to the Bond Falls Hydroelectric Project Approved Nuisance Plant Control Plan provided to FERC on June 7, 2011, UPPCO is to annually provide the PL and EWM survey results for the Cisco Chain of Lakes (FERC Project No. 1864).

The results of the PL and EWM annual survey and EWM Five-Year Report are to be filed with FERC by December 31, 2014. The FERC report shall include any comments provided by the BFIT.

2014 Bond Falls Hydroelectric Projects – PL Survey Results

Surveys for PL were completed at the Bond Falls reservoir on August 14, 2014, and for the Bergland Development, beginning at the end of August through September 2014.

Ms. Kimberly D. Bose, Secretary
December 26, 2014
Page 2 of 4

A survey for PL at the Victoria Falls reservoir was not completed until October 22, 2014.

UPPCO awarded the proposal to complete the PL survey at the Victoria Falls reservoir well within the optimal PL identification period. However, the awarded purchase order was sent via electronic mail and was later found not to be received by the consultant.

Even though the PL survey was completed outside of the optimal identification period, the consultant did indicate that emergent vegetation was still intact and visible. In addition, the consultant is a trained botanist and would be able to identify PL outside of the optimal identification period.

Corrections to the consultant purchase order process have been implemented to address the issue. UPPCO apologizes for any inconvenience.

No PL was identified at the Bond Falls and Victoria Falls reservoirs. PL has not been observed at these reservoirs since first completing PL surveys in 2005.

Purple Loosestrife was once again observed at the Bergland Development. As in the past, nine colonies were identified as being located within the project boundary. Only two the colonies were considered large (50+ plants).

In consultation with the BFIT, UPPCO provided funding to the Lake Gogebic Improvement Association (LGIA) to control purple loosestrife on the reservoir. From August through September, the LGIA completed a hand pull and/or burn control on five colonies. However control at the two largest colonies was hindered this year due to lack of available biological control; (*galerucella sp.*) beetles at one colony and curtailed due to safety concerns; the presence of bald face hornets (*Dolichovespula maculata*), at the other large colony.

The purple loosestrife survey results for the Bergland Development are included in Appendix A.

2014 Bond Falls Hydroelectric Projects – EWM Survey Results

EWM surveys were completed at the Bergland Development from late August through September of 2014. No EWM was observed at any of the five transect locations.

A survey for EWM at Bond Falls and Victoria Falls reservoir was not completed until October 22, 2014.

UPPCO awarded the proposal to complete the EWM survey at the reservoirs well within the optimal EWM identification period. However, the awarded purchase order was sent via electronic mail and was later found not to be received by the consultant.

Even though the EWM survey was completed outside of the optimal identification period, the consultant did indicate that aquatic vegetation was plentiful and in overall fair health. In addition, the consultant is a trained botanist and would be able to identify EWM outside of the optimal identification period. No EWM was identified at the Bond Falls and Victoria Falls reservoirs.

Ms. Kimberly D. Bose, Secretary
December 26, 2014
Page 3 of 4

Corrections to the consultant purchase order process have been implemented to address the issue. UPPCO apologizes for any inconvenience.

EWM has not been observed at any of the three reservoirs during any of the EWM surveys being in 2005. The EWM survey results are included in Appendix B.

EWM Five Year Report for Bond Falls, Victoria Falls and Bergland Development

In 2005 UPPCO selected EWM transect sample locations at Bond Falls and Victoria Falls reservoirs and the Bergland Development. A total of ten transect sample locations were established near boat landings and other areas of high public use. These sample locations were selected because they would most likely be the first location where EWM would be introduced into a water system.

Over the past five years, UPPCO has been completing surveys of the EWM transects at these same EWM transect locations. EWM has not been observed at any of the EWM transect sample locations.

Although EWM has not been observed at any of the transect sample locations nor within their respective reservoirs, UPPCO recommends maintaining the current EWM sampling methodology and completing the EWM surveys on an annual basis.

UPPCO believes that because EWM has not been observed to date, maintaining the current sampling methods will provide UPPCO with the best opportunity to quickly address and control and/or eliminate EWM if found on the Bond Falls and Victoria Falls reservoirs and Bergland Development.

EWM survey results from years 2010 through 2014 are included in Appendix C.

2014 Cisco Chain of Lakes – PL and EWM Survey Results

Purple loosestrife surveys on the Cisco Chain of Lakes were completed from August through September of 2014. Purple loosestrife was observed on Thousand Island Lake. The need for Purple loosestrife control will be discussed at the BFIT meeting this March/April.

Eighteen EWM transect sample surveys and a meandering survey was also completed from August through September of 2014 on the Cisco Chain of Lakes. EWM was identified at one transect location on Thousand Island Lake. The meandering boat sample also identified EWM stands at two other locations on Thousand Island Lake, outside of the transect locations. The EWM transect and location figure and information sheet is included as Appendix D.

Updates on EWM control activities will be provided and discussed at the BFIT meeting this March/April.

UPPCO provided the results of the PL and EWM annual survey and EWM Five-Year Report to the BFIT on October 29, 2014. The U.S. Fish and Wildlife Service provided general comments indicating that the two invasive plant species do not appear to be a problem. Documentation of consultation is included in Appendix E.

Ms. Kimberly D. Bose, Secretary
December 26, 2014
Page 4 of 4

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 black ink, appearing to read "Gil Snyder", with a long horizontal flourish extending to the right.

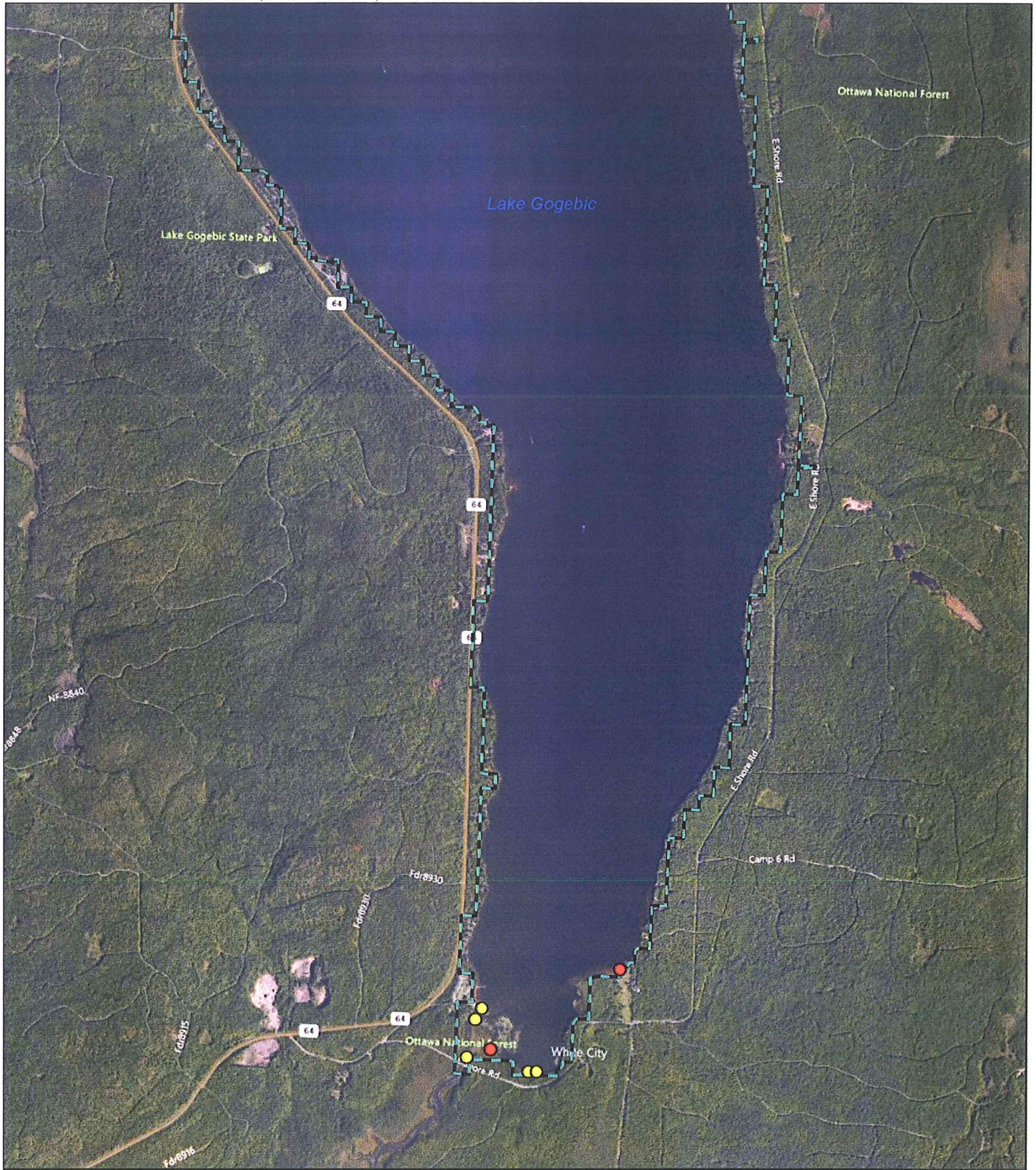
Gil Snyder
Manager – Regional Generation
for Wisconsin Public Service

jdn/rjf

Enc:

cc:	Mr. John Myers, IBS - D2	Mr. Robert Meyers, UPPCO - UISC
	Mr. Shawn Puzen, IBS - D2	Mr. Keith Moyle, UPPCO - UISC
	Mr. Ben Trotter, IBS - D2	Mr. Virgil Schlorke, UPPCO - UISC
	Ms. Joan Johaneck, WPS - D2	Mr. John Zygaj, FERC - CRO
	Mr. James Melchiori, UPPCO - UVD	

APPENDIX A



Lake Gogebic, MI **Purple Loosestrife Survey** **2014**

0 0.5 1 Miles

Date: 10/29/2014

Imagery: Bing Maps

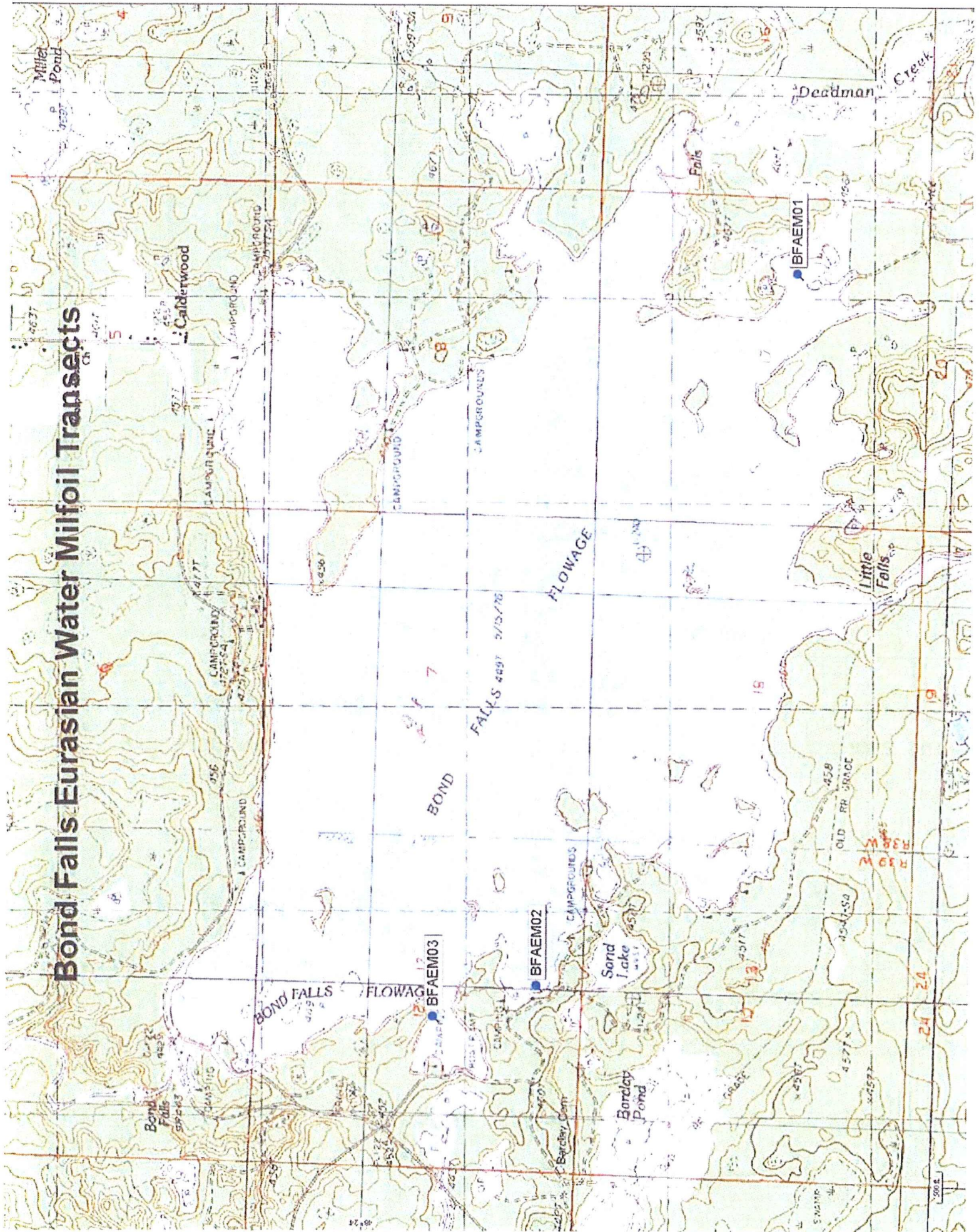
Legend

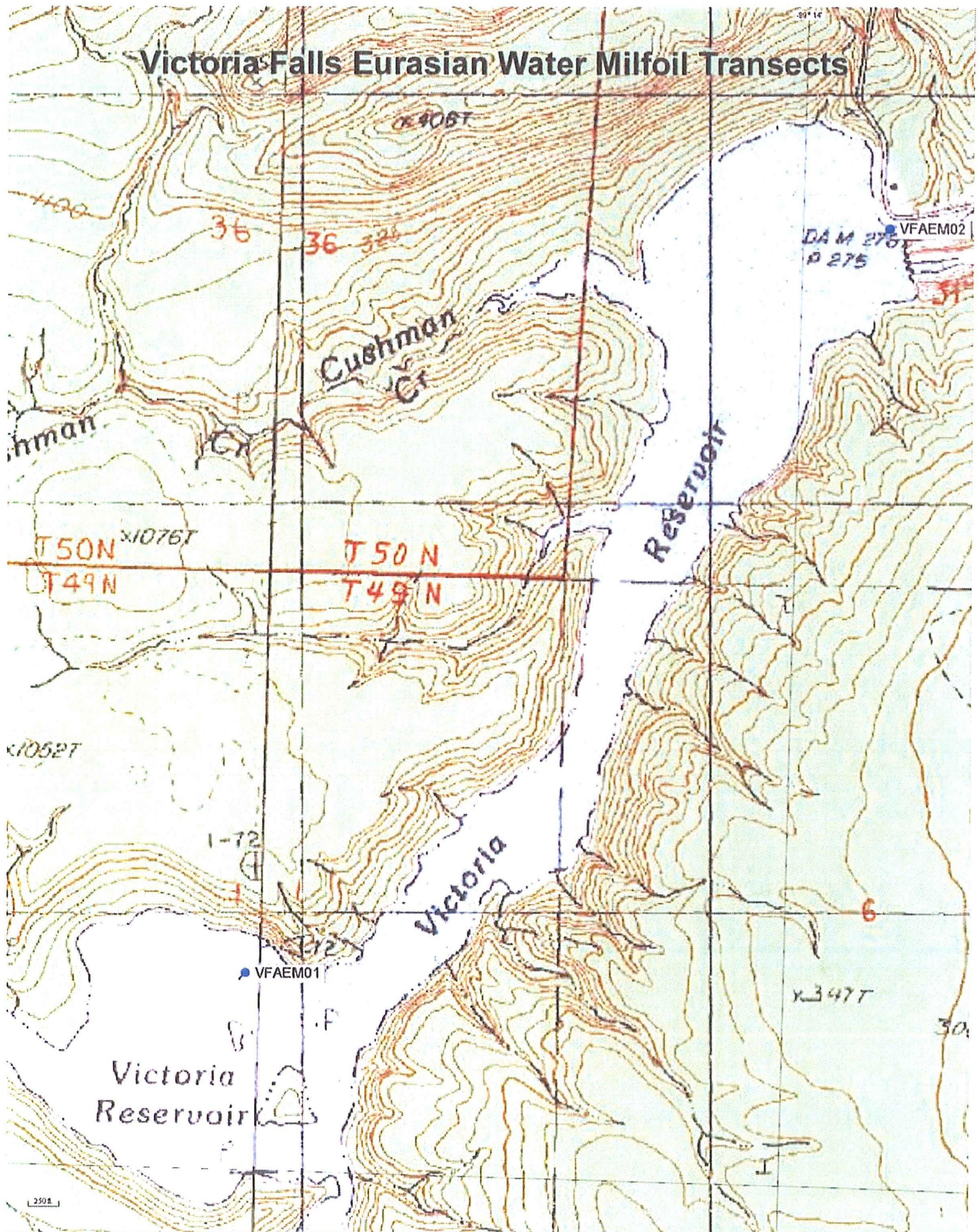
-  Project Boundary
- Purple Loosestrife**
 -  0-5 Plants
 -  6-50 Plants
 -  >50 Plants

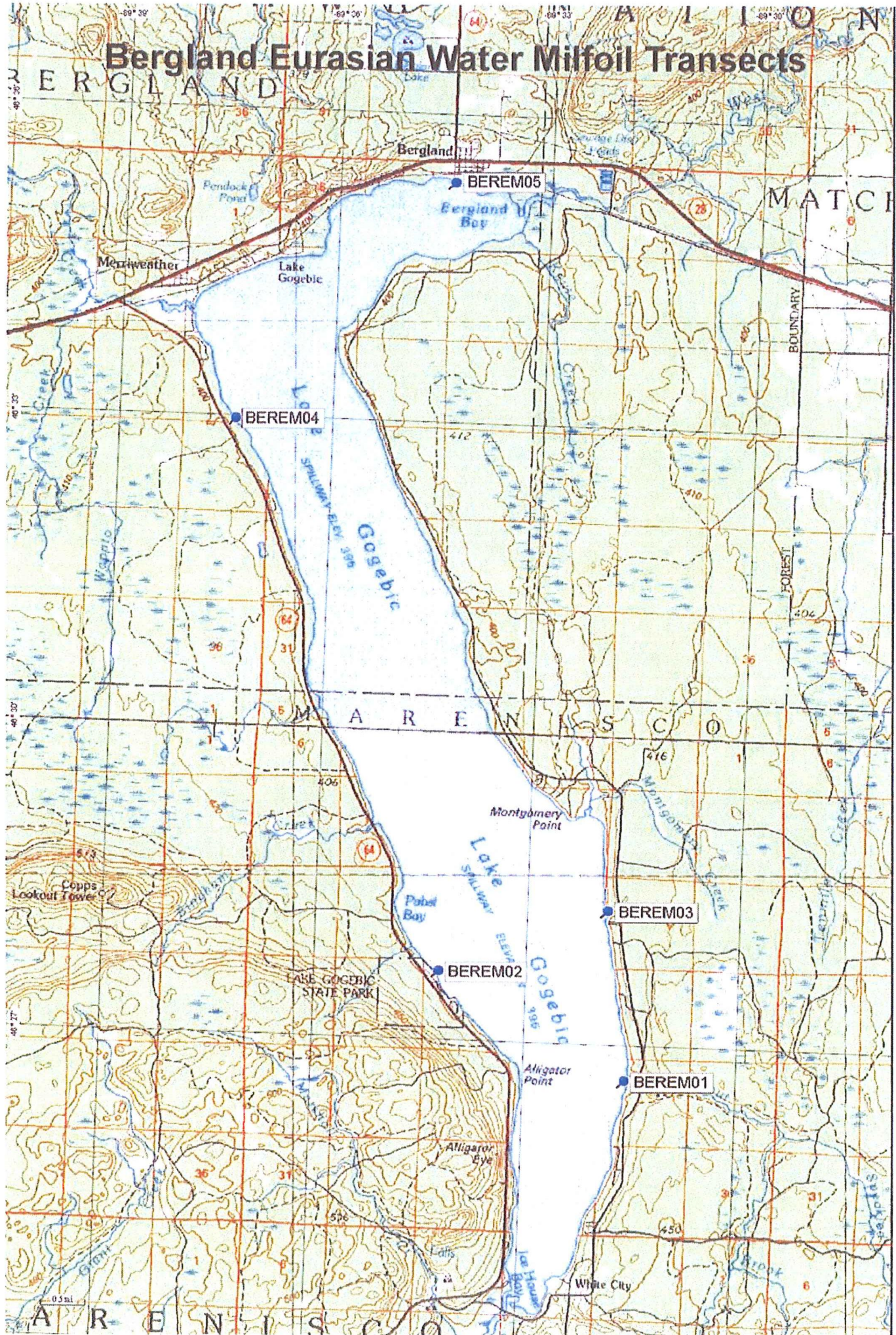


Plant Abundance Scale: Small 1-5 plants, Medium 6-50 plant , Large 50 + plants

APPENDIX B







Mr. Jamie Nuthals
 October 28, 2014
 Project No. D141704.00

Page 2

Results:

The following tables summarize the findings of the field surveys:

Table 1
BOND FALLS HYDROELECTRIC PROJECT EURASIAN WATER MILFOIL SURVEY
OCTOBER 22, 2014

Transect #	0-0.5m	0.5-1.5m	1.5-30m	>3.0m	Origin	Notes
1A	0	0	NA	NA	N 46 22.917	Potomogeton present
1B	0	0	NA	NA	W 89 04.757	
1C	0	0	0	NA		
2A	0	0	NA	NA	N 46 23.553	Elodea, Potomogeton, Ceratophyllum present
2B	0	0	NA	NA	W 89 07.503	
2C	0	0	NA	NA		
3A	0	0	NA	NA	N 46 23.827	Potomogeton sparsely present
3B	0	0	NA	NA	W 89 07.631	
3C	0	0	0	NA		

Table 2
VICTORIA FALLS HYDROELECTRIC PROJECT EURASIAN WATER MILFOIL SURVEY
OCTOBER 22, 2014

Transect #	0-0.5m	0.5-1.5m	1.5-30m	>3.0m	Origin	Notes
1A	0	0	NA	NA	N 46 40.259	Potomogeton present
1B	0	0	0	NA	W 89 15.038	
1C	0	0	0	NA		
2A	0	0	NA	NA	N 46 41.266	Potomogeton present
2B	0	0	NA	NA	W 89 13.837	
2C	0	0	NA	NA		

Eurasian Milfoil Surveys				
Bergland Development				
Transect #	0 - 0.5 M	0.5 - 1.5 M	1.5 - 3.0 M	> 3.0 M
1A	0	0	N/A	N/A
1B	0	0	N/A	N/A
1C	0	0	N/A	N/A
2A	0	0	N/A	N/A
2B	0	0	0	N/A
2C	0	0	0	N/A
3A	0	0	N/A	N/A
3B	0	0	0	N/A
3C	0	0	0	0
4A	0	N/A	N/A	N/A
4B	0	0	N/A	N/A
4C	0	0	0	0
5A	0	N/A	N/A	N/A
5B	0	0	0	0
5C	0	0	0	0

Abundance Scale: 0-Absent, 1-Present, 2-Presence Less Than Half, 3-Equal Presence Compared to Other Species, 4-Dominant Species Present, 5-Total Infestation

APPENDIX C

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							

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							

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							

Eurasian Milfoil Survey - August 1, 2011				
Bond Falls, Ontonagon County, Michigan				
Transect #	0 - 0.5 M	0.5 - 1.5 M	1.5 - 3.0 M	> 3.0 M
1A	0	0	NA	NA
1B	0	0	NA	NA
1C	0	0	NA	NA
2A	0	0	NA	NA
2B	0	0	NA	NA
2C	0	0	NA	0
3A	0	0	NA	NA
3B	0	0	NA	NA
3C	0	0	NA	0

Abundance Scale	
0	Absent
1	Present
2	Abundance Less than Half
3	Equal Presence Compared to Other Species
4	Dominant Species
5	Total Infestation

Eurasian Milfoil Survey - August 1, 2011				
Victoria Falls, Ontonagon County, Michigan				
Transect #	0 - 0.5 M	0.5 - 1.5 M	1.5 - 3.0 M	> 3.0 M
1A	0	0	NA	NA
1B	0	0	0	NA
1C	0	0	0	NA
2A	0	0	NA	NA
2B	0	0	NA	NA
2C	0	0	0	NA

Abundance Scale	
0	Absent
1	Present
2	Abundance Less than Half
3	Equal Presence Compared to Other Species
4	Dominant Species
5	Total Infestation

Eurasian Milfoil Survey - August 2, 2011				
Lake Gogebic, Gogebic County, Michigan				
Transect #	0 - 0.5 M	0.5 - 1.5 M	1.5 - 3.0 M	> 3.0 M
1A	0	0	NA	NA
1B	0	0	NA	NA
1C	0	0	NA	NA
2A	0	0	NA	NA
2B	0	0	NA	NA
2C	0	0	0	NA
3A	0	0	NA	NA
3B	0	0	0	NA
3C	0	0	0	NA
4A	0	0	NA	NA
4B	0	0	NA	NA
4C	0	0	NA	NA
5A	0	0	NA	NA
5B	0	0	NA	NA
5C	0	0	NA	NA

Abundance Scale	
0	Absent
1	Present
2	Abundance Less than Half
3	Equal Presence Compared to Other Species
4	Dominant Species
5	Total Infestation

Eurasian Milfoil Survey - August 27, 2012				
Bond Falls, Ontonagon County, Michigan				
Transect #	0 - 0.5 M	0.5 - 1.5 M	1.5 - 3.0 M	> 3.0 M
1A	0	0	NA	NA
1B	0	0	NA	NA
1C	0	0	NA	NA
2A	0	0	NA	NA
2B	0	0	NA	NA
2C	0	0	NA	0
3A	0	0	NA	NA
3B	0	0	NA	NA
3C	0	0	NA	0

Abundance Scale	
0	Absent
1	Presence Less than Half
2	Equal Presence Compared to Other Species
3	Dominant Species
4	Total Infestation

Eurasian Milfoil Survey - August 27, 2012				
Victoria Falls, Ontonagon County, Michigan				
Transect #	0 - 0.5 M	0.5 - 1.5 M	1.5 - 3.0 M	> 3.0 M
1A	0	0	NA	NA
1B	0	0	0	NA
1C	0	0	0	NA
2A	0	0	NA	NA
2B	0	0	NA	NA
2C	0	0	0	NA

Abundance Scale	
0	Absent
1	Presence Less than Half
2	Equal Presence Compared to Other Species
3	Dominant Species
4	Total Infestation

Eurasian Milfoil Survey - August 28, 2012				
Lake Gogebic, Gogebic County, Michigan				
Transect #	0 - 0.5 M	0.5 - 1.5 M	1.5 - 3.0 M	> 3.0 M
1A	0	0	NA	NA
1B	0	0	NA	NA
1C	0	0	NA	NA
2A	0	0	NA	NA
2B	0	0	NA	NA
2C	0	0	0	NA
3A	0	0	NA	NA
3B	0	0	0	NA
3C	0	0	0	NA
4A	0	0	NA	NA
4B	0	0	NA	NA
4C	0	0	NA	NA
5A	0	0	NA	NA
5B	0	0	NA	NA
5C	0	0	NA	NA

Abundance Scale	
0	Absent
1	Presence Less than Half
2	Equal Presence Compared to Other Species
3	Dominant Species
4	Total Infestation

Eurasian Milfoil Surveys				
Bond Falls Hydroelectric Project				
8-Aug-13				
Transect #	0 - 0.5 M	0.5 - 1.5 M	1.5 - 3.0 M	> 3.0 M
1A	0	0	N/A	N/A
1B	0	0	N/A	N/A
1C	0	0	N/A	N/A
2A	0	0	N/A	N/A
2B	0	0	N/A	N/A
2C	0	0	N/A	N/A
3A	0	0	N/A	N/A
3B	0	0	0	N/A
3C	0	0	0	0

Abundance Scale: 0-Absent, 1-Present, 2-Presence Less Than Half, 3-Equal Presence Compared to Other Species,
4-Dominant Species Present, 5-Total Infestation

Lake Gogebic Eurasian Watermilfoil Survey – August 8 and 9, 2013

White Water Associates Field Staff: Caitlin Clarke and Angie Stine
Gogebic and Ontonagon Counties, Michigan



Transect #	0-0.5 m	0.5-1.5 m	1.5-3.0 m	>3.0 m	Origin	Notes
1A	0	0	NA	NA	N 46 26.642 W 89 31.587 (46.44403, -89.52645)	No aquatic plants observed. A few hundred feet south of Trout Brook. Substrate of rock and cobble.
1B	0	0	NA	NA		
1C	0	0	NA	NA		
2A	0	0	NA	NA	N 46 27.653 W 89 34.259 (46.46088, -89.57098)	No aquatic plants observed. In front of campsites. Substrate of rock and cobble.
2B	0	0	0	NA		
2C	0	0	0	0		
3A	0	0	NA	NA	N 46 28.294 W 89 31.883 46.47157, -89.53138)	No aquatic plants observed. South of boat landing a few hundred feet in small cove. Substrate of rock and cobble.
3B	0	0	0	NA		
3C	0	0	0	0		
4A	0	NA	NA	NA	N 46 32.964 W 89 37.401 (46.54940, -89.62335)	<i>Valisneria Americana</i> present. Thirty feet north of park with sand beach and boat launch. Substrate of sand and rock.
4B	0	0	NA	NA		
4C	0	0	0	0		
5A	0	NA	NA	NA	N 46 35.338 W 89 34.391 (46.58897, -89.57318)	<i>Valisneria Americana</i> and <i>Potamogeton richardsonii</i> present. Fifty feet west of Bergland boat launch on east side of large concrete pier. Substrate of sand and rock
5B	0	0	0	0		
5C	0	0	0	0		

NA: Not Applicable

Abundance Scale: 0-EWM absent, 1-EWM present, 2 –EWM presence less than half, 3-EWM equal presence compared to other species, 4-EWM dominant species present, 5-EWM total infestation.

Note: Transects are 40 ft long and proceed away from shore in a direction perpendicular to the shoreline

Mr. Jamie Nuthals
 October 28, 2014
 Project No. D141704.00

Page 2

Results:

The following tables summarize the findings of the field surveys:

Table 1
BOND FALLS HYDROELECTRIC PROJECT EURASIAN WATER MILFOIL SURVEY
OCTOBER 22, 2014

Transect #	0-0.5m	0.5-1.5m	1.5-30m	>3.0m	Origin	Notes
1A	0	0	NA	NA	N 46 22,917	Potomogeton present
1B	0	0	NA	NA	W 89 04.757	
1C	0	0	0	NA		
2A	0	0	NA	NA	N 46 23.553	Elodea, Potomogeton, Ceratophyllum present
2B	0	0	NA	NA	W 89 07.503	
2C	0	0	NA	NA		
3A	0	0	NA	NA	N 46 23.827	Potomogeton sparsely present
3B	0	0	NA	NA	W 89 07.631	
3C	0	0	0	NA		

Table 2
VICTORIA FALLS HYDROELECTRIC PROJECT EURASIAN WATER MILFOIL SURVEY
OCTOBER 22, 2014

Transect #	0-0.5m	0.5-1.5m	1.5-30m	>3.0m	Origin	Notes
1A	0	0	NA	NA	N 46 40.259	Potomogeton present
1B	0	0	0	NA	W 89 15.038	
1C	0	0	0	NA		
2A	0	0	NA	NA	N 46 41.266	Potomogeton present
2B	0	0	NA	NA	W 89 13.837	
2C	0	0	NA	NA		

Eurasian Milfoil Surveys				
Bergland Development				
Transect #	0 - 0.5 M	0.5 - 1.5 M	1.5 - 3.0 M	> 3.0 M
1A	0	0	N/A	N/A
1B	0	0	N/A	N/A
1C	0	0	N/A	N/A
2A	0	0	N/A	N/A
2B	0	0	0	N/A
2C	0	0	0	N/A
3A	0	0	N/A	N/A
3B	0	0	0	N/A
3C	0	0	0	0
4A	0	N/A	N/A	N/A
4B	0	0	N/A	N/A
4C	0	0	0	0
5A	0	N/A	N/A	N/A
5B	0	0	0	0
5C	0	0	0	0

Abundance Scale: 0-Absent, 1-Present, 2-Presence Less Than Half, 3-Equal Presence Compared to Other Species, 4-Dominant Species Present, 5-Total Infestation

APPENDIX D

2014 Cisco Chain EWM Transect Survey Results				
Lake Name	Depth Quarter (m)	Transect ID		
		1A	1B	1C
Clearwater	0-0.5	0	0	0
	0.5-1.5	0	0	0
	1.5-3.0	0	0	0
	>3.0	0	0	0
		2A	2B	2C
Clearwater	0-0.5	0	0	0
	0.5-1.5	0	0	0
	1.5-3.0	0	0	0
	>3.0	0	0	0
		3A	3B	3C
Big Africa	0-0.5	0	0	0
	0.5-1.5	0	0	0
	1.5-3.0	0	0	0
	>3.0	0	0	0
		4A	4B	4C
Thousand Island	0-0.5	0	0	0
	0.5-1.5	0	0	0
	1.5-3.0	0	0	0
	>3.0	0	0	0
		5A	5B	5C
Thousand Island	0-0.5	0	0	0
	0.5-1.5	0	0	0
	1.5-3.0	0	0	0
	>3.0	0	0	0
		6A	6B	6C
Thousand Island	0-0.5	0	0	0
	0.5-1.5	0	0	0
	1.5-3.0	0	0	0
	>3.0	0	0	0
		7A	7B	7C
Thousand Island	0-0.5	0	0	0
	0.5-1.5	0	0	0
	1.5-3.0	0	0	0
	>3.0	0	0	0

2014 Cisco Chain EWM Transect Survey Results				
Lake Name	Depth Quarter (m)	Transect ID		
East Bay	0-0.5	0	0	0
	0.5-1.5	0	0	0
	1.5-3.0	0	0	0
	>3.0	depth did not exceed 3m		
		9A	9B	9C
Fishhawk	0-0.5	0	0	0
	0.5-1.5	0	0	0
	1.5-3.0	0	0	0
	>3.0	0	0	0
		10A	10B	10C
Cisco	0-0.5	0	0	0
	0.5-1.5	0	0	0
	1.5-3.0	0	0	0
	>3.0	depth did not exceed 3m		
		11A	11B	11C
Thousand Island	0-0.5	0	0	0
	0.5-1.5	0	0	0
	1.5-3.0	0	0	0
	>3.0	depth did not exceed 3m		
		12A	12B	12C
Mamie	0-0.5	0	0	0
	0.5-1.5	0	0	0
	1.5-3.0	0	0	0
	>3.0	0	0	0
		13A	13B	13C
Big	0-0.5	0	0	0
	0.5-1.5	0	0	0
	1.5-3.0	0	0	0
	>3.0	0	0	0
		14A	14B	14C
Big	0-0.5	0	0	0
	0.5-1.5	0	0	0
	1.5-3.0	0	0	0
	>3.0	0	0	0

2014 Cisco Chain EWM Transect Survey Results				
Lake Name	Depth Quarter (m)	Transect ID		
		15A	15B	15C
Big	0-0.5	0	0	0
	0.5-1.5	0	0	0
	1.5-3.0	0	0	0
	>3.0	0	0	0
		16A	16B	16C
Cisco	0-0.5	0	0	0
	0.5-1.5	0	0	0
	1.5-3.0	0	0	0
	>3.0	0	0	0
		17A	17B	17C
Mamie	0-0.5	0	0	0
	0.5-1.5	0	0	0
	1.5-3.0	0	0	0
	>3.0	0	0	0
		18A	18B	18C
Thousand Island	0-0.5	0	0	1
	0.5-1.5	0	0	0
	1.5-3.0	0	0	0
	>3.0	0	0	0

Key	
Ranking	Description
0	EWM absent
1	EWM present on less than half
2	EWM equal compared to other species
3	EWM dominant
4	EWM total infestation

Cisco Chain of Lakes

Eurasian Watermilfoil Transect Survey Locations



Location: Cisco Chain of Lakes, Gogebic County, MI & Vilas County, WI
Source: FERC_EWM_PLS_CiscoChain_2014, MiGDL Lake_polygons_200304,
ESRI Base Maps

● EWM Location

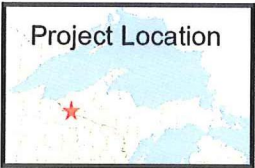
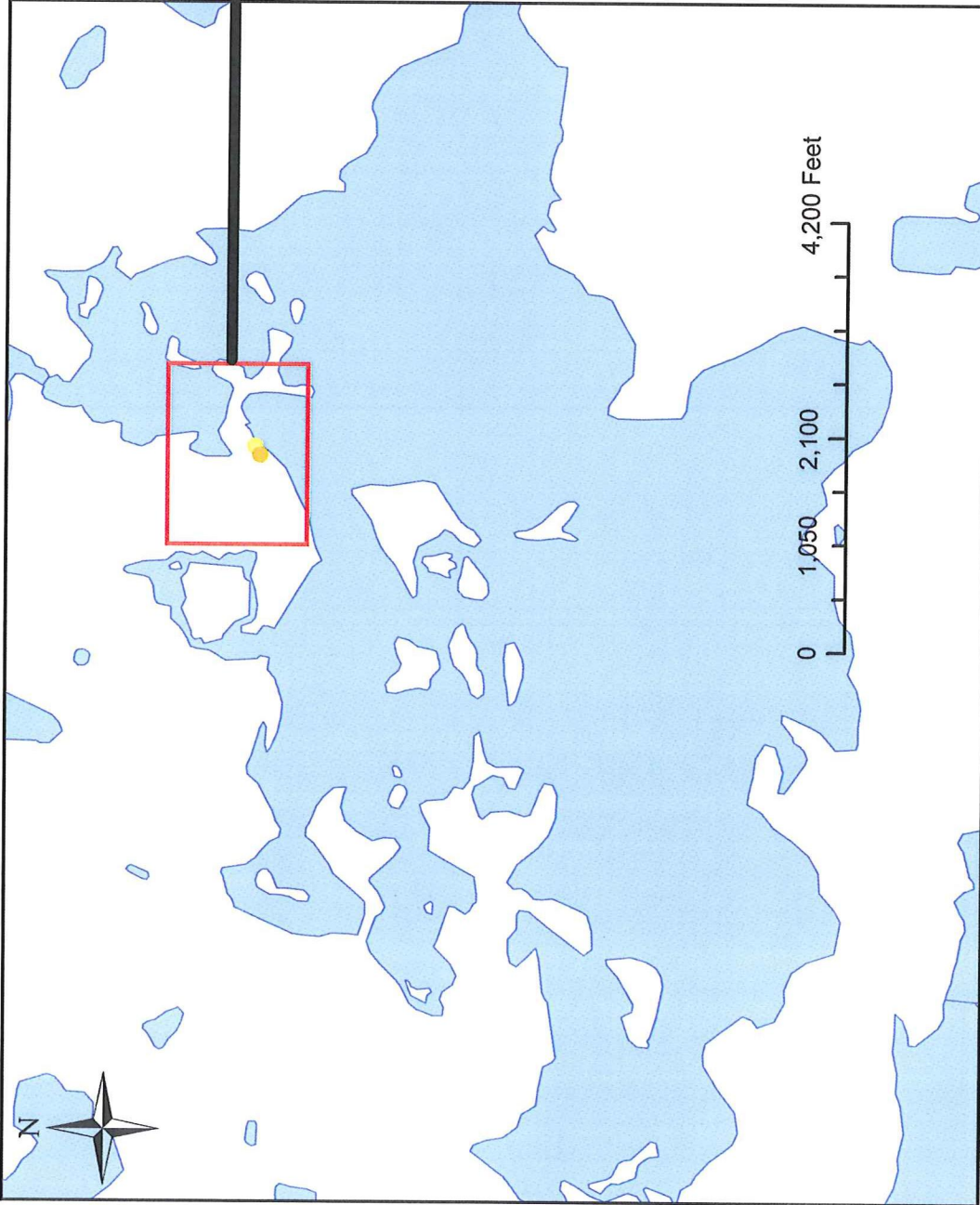


Figure 3
Cisco Chain
Eurasian Watermilfoil
Survey Locations

2014 Purple Loosestrife Survey Results - Cisco Chain of Lakes				
Lake	Colony Description	Colony Size	Spatial Identification Latitude/Longitude (NAD 83)	
Thousand Island	Small Colony ("A")	1-5 plants	46.23807	89.39837
Thousand Island	Medium Colony ("B")	6-50 plants	46.23791	89.39869

Cisco Chain of Lakes 2014 Purple Loosestrife Locations



Location: Cisco Chain of Lakes, Gogebic County, MI & Vilas County, WI
Source: FERC_EIWM_RIS_CiscoChain_2014_MIGDLake_polygons_200304,
ESRI Base Maps

- A - Small Colony
- B - Medium Plant Colony

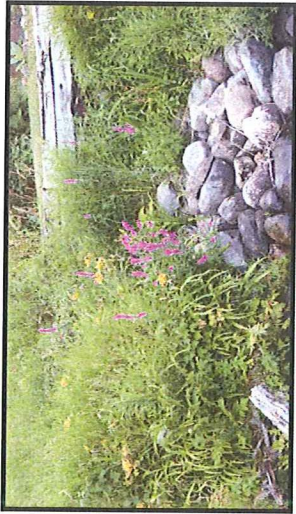
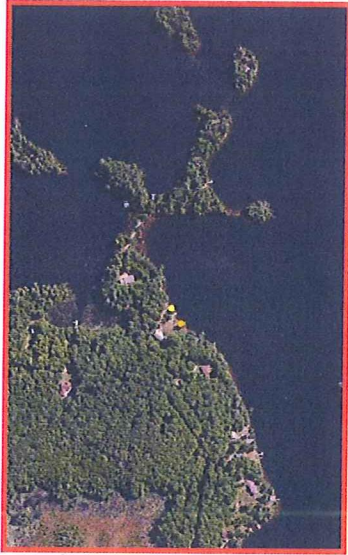
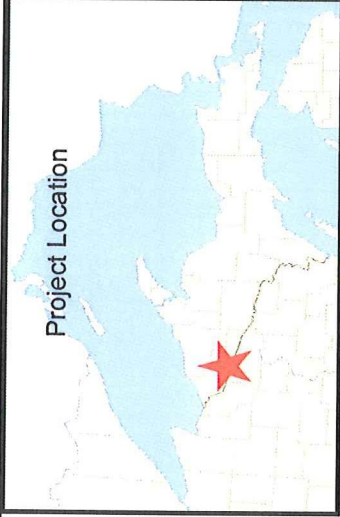


Photo of Medium Colony

Figure 2
Purple Loosestrife Locations
Thousand Island Lake

APPENDIX E

UPPCO LETTER TO THE BOND FALLS IMPLEMENTATION TEAM

Nuthals, James D

From: Nuthals, James D
Sent: Wednesday, October 29, 2014 12:14 PM
To: Stephen.Gilbert@Wisconsin.gov; Fisher, Burr (Burr_Fisher@fws.gov); gmensch@kbic-nnsn.gov; Kruger, Kyle (DNR) (KRUGERK@michigan.gov); 'James Schramm'; Norman Nass
Cc: Laatsch, Cheryl - DNR
Subject: 2014 UPPCO Bond Falls Hydroelectric Project - EWM and PL Survey Results
Attachments: Appendix C.pdf; Appendix D.pdf; Appendix B.pdf; 20141029BF EWMPL-MDNR.pdf; 20141029BF EWMPL-MHRC.pdf; 20141029BF EWMPL-USDA-FS.pdf; 20141029BF EWMPL-WDNR.pdf; 20141029BF EWMPL-FWS.pdf; 20141029BF EWMPL-KBIC.pdf; Appendix A.pdf

Importance: High

Greetings,

Please reference UPPCO's 2014 Bond Falls Hydroelectric Project Eurasian watermilfoil and purple loosestrife survey results.

Please provide comments within thirty (30) days of receiving this information.

Sincerely,

James D Nuthals

Natural Resource Management | Environmental Services | Integrys Business Support, LLC

920-433-1460

920-309-0741 cell (please note cell phone number change)

920-433-1176 fax

jdnuthals@integrysgroup.com

www.integrysgroup.com

Providing support for Integrys Energy Groups, Michigan Gas Utilities, Minnesota Energy Resources, North Shore Gas, Peoples Gas, Wisconsin Public Service, and Wisconsin River Power.



Upper Peninsula Power Company
500 North Washington Street
Ishpeming, MI 49849
www.UPPCO.com

October 29, 2014

FERC Project No. 1864

Mr. Kyle Kruger
Michigan Department of Natural Resources
Mio Field Office
191 S. Mt. Tom Rd
Mio, MI 48647

Dear Mr. Kruger:

Bond Falls Hydroelectric Project
Article 411 Noxious Plants Monitoring Plan – 2014 Purple Loosestrife and Eurasian Water
Milfoil Survey Results and Five Year Monitoring Report and Cisco Chain of Lakes
Nuisance Plant Control Plan Results

As per the Federal Energy Regulatory Commission (FERC) Order Modifying and Approving Article 411 Nuisance Plant Control Plan issued February 24, 2005, the Upper Peninsula Power Company (UPPCO) is required to submit the results of the purple loosestrife (PL) and Eurasian water milfoil (EWM) monitoring surveys for the Bond Falls Hydroelectric Project (FERC Project No. 1864) to the Bond Falls Implementation Team (BFIT).

In addition, per the FERC Order Modifying and Approving the Five-Year Report for EWM at the Bond Falls (FERC Project No. 1864-01), Victoria Falls (FERC Project No. 1864-02) and the Bergland Development (FERC Project No. 1864), dated May 5, 2011, UPPCO is to submit the five- year EWM survey results. The monitoring report shall contain a comparison of all data and a recommendation for the frequency of future EWM monitoring.

Finally, per the Notice of Proposed Changes to the Bond Falls Hydroelectric Project Approved Nuisance Plant Control Plan provided to FERC on June 7, 2011, UPPCO is to annually provide the PL and EWM survey results for the Cisco Chain of Lakes (FERC Project No. 1864).

2014 Bond Falls Hydroelectric Projects – PL Survey Results

Surveys for PL were completed at the Bond Falls reservoir on August 14, 2014, and for the Bergland Development, beginning at the end of August through September 2014.

A survey for PL at the Victoria Falls reservoir was not completed until October 22, 2014.

UPPCO awarded the proposal to complete the PL survey at the Victoria Falls reservoir well within the optimal PL identification period. However, the awarded purchase order was sent via electronic mail and was later found not to be received by the consultant.

Even though the PL survey was completed outside of the optimal identification period, the consultant did indicate that emergent vegetation was still intact and visible. In

Mr. Kyle Kruger
October 29, 2014
Page 2 of 3

addition, the consultant is a trained botanist and would be able to identify PL outside of the optimal identification period.

Corrections to the consultant purchase order process have been implemented to address the issue. UPPCO apologizes for any inconvenience.

No PL was identified at the Bond Falls and Victoria Falls reservoirs. PL has not been observed at these reservoirs since first completing PL surveys in 2005.

Purple was once again observed at the Bergland Development. As in the past, nine colonies were identified as being located within the project boundary. Only two the colonies were considered large (50+ plants).

In consultation with the BFIT, UPPCO provided funding to the Lake Gogebic Improvement Association (LGIA) to control purple loosestrife on the reservoir. From August through September, the LGIA completed a hand pull and/or burn control on five colonies. However control at the two largest colonies was hindered this year due to lack of available biological control (*galerucella sp.*) beetles at one colony and curtailed due to safety concerns ; the presence of bald face hornets (*Dolichovespula maculata*), at the other large colony.

The purple loosestrife survey results for the Bergland Development are included in Appendix A.

2014 Bond Falls Hydroelectric Projects – EWM Survey Results

EWM surveys were completed at the Bergland Development from late August through September of 2014. No EWM was observed at any of the five transect locations.

A survey for EWM at Bond Falls and Victoria Falls reservoir was not completed until October 22, 2014.

UPPCO awarded the proposal to complete the EWM survey at the reservoirs well within the optimal EWM identification period. However, the awarded purchase order was sent via electronic mail and was later found not to be received by the consultant.

Even though the EWM survey was completed outside of the optimal identification period, the consultant did indicate that aquatic vegetation was plentiful and in overall fair health. In addition, the consultant is a trained botanist and would be able to identify EWM outside of the optimal identification period. No EWM was identified at the Bond Falls and Victoria Falls reservoirs.

Corrections to the consultant purchase order process have been implemented to address the issue. UPPCO apologizes for any inconvenience.

EWM has not been observed at any of the three reservoirs during any of the EWM surveys being in 2005. The EWM survey results are included in Appendix B.

Mr. Kyle Kruger
October 29, 2014
Page 3 of 3

EWM Five Year Report for Bond Falls, Victoria Falls and Bergland Development

In 2005 UPPCO selected EWM transect sample locations at Bond Falls and Victoria Falls reservoirs and the Bergland Development. A total of ten transect sample locations were established near boat landings and other areas of high public use. These sample locations were selected because they would most likely be the first location where EWM would be introduced into a water system.

Over the past five years, UPPCO has been completing surveys of the EWM transects at these same EWM transect locations. EWM has not been observed at any of the EWM transect sample locations.

Although EWM has not been observed at any of the transect sample locations nor within their respective reservoirs, UPPCO recommends maintaining the current EWM sampling methodology and completing the EWM surveys on an annual basis.

UPPCO believes that because EWM has not been observed to date, maintaining the current sampling methods will provide UPPCO with the best opportunity to quickly address and control and/or eliminate EWM if found on the Bond Falls and Victoria Falls reservoirs and Bergland Development.

EWM survey results from years 2010 through 2014 are included in Appendix C.

2014 Cisco Chain of Lakes – PL and EWM Survey Results

Purple loosestrife surveys on the Cisco Chain of Lakes were completed from August through September of 2014. Purple loosestrife was observed on Thousand Island Lake. The need for Purple loosestrife control will be discussed at the BFIT meeting this March/April.

18 EWM transect sample surveys and a meandering survey was also completed from August through September of 2014 on the Cisco Chain of Lakes. EWM was identified at one transect location on Thousand Island Lake. The meandering boat sample also identified EWM stands at two other locations on Thousand Island Lake, outside of the transect locations. The EWM transect and location figure and information sheet is included as Appendix D.

Updates on EWM control activities will be provided and discussed at the BFIT meeting this March/April.

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

Sincerely,



Jamie Nuthals
Environmental Services
Natural Resource Management
UPPCO
(920) 433-1460



Upper Peninsula Power Company
500 North Washington Street
Ishpeming, MI 49849
www.UPPCO.com

October 29, 2014

FERC Project No. 1864

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

Dear Mr. Schramm:

Bond Falls Hydroelectric Project
Article 411 Noxious Plants Monitoring Plan – 2014 Purple Loosestrife and Eurasian Water
Milfoil Survey Results and Five Year Monitoring Report and Cisco Chain of Lakes
Nuisance Plant Control Plan Results

As per the Federal Energy Regulatory Commission (FERC) Order Modifying and Approving Article 411 Nuisance Plant Control Plan issued February 24, 2005, the Upper Peninsula Power Company (UPPCO) is required to submit the results of the purple loosestrife (PL) and Eurasian water milfoil (EWM) monitoring surveys for the Bond Falls Hydroelectric Project (FERC Project No. 1864) to the Bond Falls Implementation Team (BFIT).

In addition, per the FERC Order Modifying and Approving the Five-Year Report for EWM at the Bond Falls (FERC Project No. 1864-01), Victoria Falls (FERC Project No. 1864-02) and the Bergland Development (FERC Project No. 1864), dated May 5, 2011, UPPCO is to submit the five- year EWM survey results. The monitoring report shall contain a comparison of all data and a recommendation for the frequency of future EWM monitoring.

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Mr. Jim Schramm
October 29, 2014
Page 2 of 3

Corrections to the consultant purchase order process have been implemented to address the issue. UPPCO apologizes for any inconvenience.

No PL was identified at the Bond Falls and Victoria Falls reservoirs. PL has not been observed at these reservoirs since first completing PL surveys in 2005.

Purple was once again observed at the Bergland Development. As in the past, nine colonies were identified as being located within the project boundary. Only two the colonies were considered large (50+ plants).

In consultation with the BFIT, UPPCO provided funding to the Lake Gogebic Improvement Association (LGIA) to control purple loosestrife on the reservoir. From August through September, the LGIA completed a hand pull and/or burn control on five colonies. However control at the two largest colonies was hindered this year due to lack of available biological control (*galerucella sp.*) beetles at one colony and curtailed due to safety concerns ; the presence of bald face hornets (*Dolichovespula maculata*), at the other large colony.

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EWM has not been observed at any of the three reservoirs during any of the EWM surveys being in 2005. The EWM survey results are included in Appendix B.

Mr. Jim Schramm
October 29, 2014
Page 3 of 3

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Over the past five years, UPPCO has been completing surveys of the EWM transects at these same EWM transect locations. EWM has not been observed at any of the EWM transect sample locations.

Although EWM has not been observed at any of the transect sample locations nor within their respective reservoirs, UPPCO recommends maintaining the current EWM sampling methodology and completing the EWM surveys on an annual basis.

UPPCO believes that because EWM has not been observed to date, maintaining the current sampling methods will provide UPPCO with the best opportunity to quickly address and control and/or eliminate EWM if found on the Bond Falls and Victoria Falls reservoirs and Bergland Development.

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

Sincerely,



Jamie Nuthals
Environmental Services
Natural Resource Management
UPPCO
(920) 433-1460



Upper Peninsula Power Company

500 North Washington Street

Ishpeming, MI 49849

www.UPPCO.com

October 29, 2014

FERC Project No. 1864

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

Dear Mr. Nass:

Bond Falls Hydroelectric Project
Article 411 Noxious Plants Monitoring Plan – 2014 Purple Loosestrife and Eurasian Water
Milfoil Survey Results and Five Year Monitoring Report and Cisco Chain of Lakes
Nuisance Plant Control Plan Results

As per the Federal Energy Regulatory Commission (FERC) Order Modifying and Approving Article 411 Nuisance Plant Control Plan issued February 24, 2005, the Upper Peninsula Power Company (UPPCO) is required to submit the results of the purple loosestrife (PL) and Eurasian water milfoil (EWM) monitoring surveys for the Bond Falls Hydroelectric Project (FERC Project No. 1864) to the Bond Falls Implementation Team (BFIT).

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Mr. Norm Nass
October 29, 2014
Page 2 of 3

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Mr. Norm Nass
October 29, 2014
Page 3 of 3

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

Sincerely,



Jamie Nuthals
Environmental Services
Natural Resource Management
UPPCO
(920) 433-1460



Upper Peninsula Power Company
500 North Washington Street
Ishpeming, MI 49849
www.UPPCO.com

October 29, 2014

FERC Project No. 1864

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

Dear Mr. Gilbert:

Bond Falls Hydroelectric Project
Article 411 Noxious Plants Monitoring Plan – 2014 Purple Loosestrife and Eurasian Water
Milfoil Survey Results and Five Year Monitoring Report and Cisco Chain of Lakes
Nuisance Plant Control Plan Results

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Even though the PL survey was completed outside of the optimal identification period, the consultant did indicate that emergent vegetation was still intact and visible. In addition, the consultant is a trained botanist and would be able to identify PL outside of the optimal identification period.

Mr. Steve Gilbert
October 29, 2014
Page 2 of 3

Corrections to the consultant purchase order process have been implemented to address the issue. UPPCO apologizes for any inconvenience.

No PL was identified at the Bond Falls and Victoria Falls reservoirs. PL has not been observed at these reservoirs since first completing PL surveys in 2005.

Purple was once again observed at the Bergland Development. As in the past, nine colonies were identified as being located within the project boundary. Only two the colonies were considered large (50+ plants).

In consultation with the BFIT, UPPCO provided funding to the Lake Gogebic Improvement Association (LGIA) to control purple loosestrife on the reservoir. From August through September, the LGIA completed a hand pull and/or burn control on five colonies. However control at the two largest colonies was hindered this year due to lack of available biological control (*galerucella sp.*) beetles at one colony and curtailed due to safety concerns ; the presence of bald face hornets (*Dolichovespula maculata*), at the other large colony.

The purple loosestrife survey results for the Bergland Development are included in Appendix A.

2014 Bond Falls Hydroelectric Projects – EWM Survey Results

EWM surveys were completed at the Bergland Development from late August through September of 2014. No EWM was observed at any of the five transect locations.

A survey for EWM at Bond Falls and Victoria Falls reservoir was not completed until October 22, 2014.

UPPCO awarded the proposal to complete the EWM survey at the reservoirs well within the optimal EWM identification period. However, the awarded purchase order was sent via electronic mail and was later found not to be received by the consultant.

Even though the EWM survey was completed outside of the optimal identification period, the consultant did indicate that aquatic vegetation was plentiful and in overall fair health. In addition, the consultant is a trained botanist and would be able to identify EWM outside of the optimal identification period. No EWM was identified at the Bond Falls and Victoria Falls reservoirs.

Corrections to the consultant purchase order process have been implemented to address the issue. UPPCO apologizes for any inconvenience.

EWM has not been observed at any of the three reservoirs during any of the EWM surveys being in 2005. The EWM survey results are included in Appendix B.

Mr. Steve Gilbert
October 29, 2014
Page 3 of 3

EWM Five Year Report for Bond Falls, Victoria Falls and Bergland Development

In 2005 UPPCO selected EWM transect sample locations at Bond Falls and Victoria Falls reservoirs and the Bergland Development. A total of ten transect sample locations were established near boat landings and other areas of high public use. These sample locations were selected because they would most likely be the first location where EWM would be introduced into a water system.

Over the past five years, UPPCO has been completing surveys of the EWM transects at these same EWM transect locations. EWM has not been observed at any of the EWM transect sample locations.

Although EWM has not been observed at any of the transect sample locations nor within their respective reservoirs, UPPCO recommends maintaining the current EWM sampling methodology and completing the EWM surveys on an annual basis.

UPPCO believes that because EWM has not been observed to date, maintaining the current sampling methods will provide UPPCO with the best opportunity to quickly address and control and/or eliminate EWM if found on the Bond Falls and Victoria Falls reservoirs and Bergland Development.

EWM survey results from years 2010 through 2014 are included in Appendix C.

2014 Cisco Chain of Lakes – PL and EWM Survey Results

Purple loosestrife surveys on the Cisco Chain of Lakes were completed from August through September of 2014. Purple loosestrife was observed on Thousand Island Lake. The need for Purple loosestrife control will be discussed at the BFIT meeting this March/April.

18 EWM transect sample surveys and a meandering survey was also completed from August through September of 2014 on the Cisco Chain of Lakes. EWM was identified at one transect location on Thousand Island Lake. The meandering boat sample also identified EWM stands at two other locations on Thousand Island Lake, outside of the transect locations. The EWM transect and location figure and information sheet is included as Appendix D.

Updates on EWM control activities will be provided and discussed at the BFIT meeting this March/April.

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

Sincerely,



Jamie Nuthals
Environmental Services
Natural Resource Management
UPPCO
(920) 433-1460



Upper Peninsula Power Company
500 North Washington Street
Ishpeming, MI 49849
www.UPPCO.com

October 29, 2014

FERC Project No. 1864

Mr. Burr Fisher
U.S. Fish and Wildlife Service
East Lansing Field Office
2651 Coolidge Road
East Lansing, MI 48823

Dear Mr. Fisher:

Bond Falls Hydroelectric Project

Article 411 Noxious Plants Monitoring Plan – 2014 Purple Loosestrife and Eurasian Water Milfoil Survey Results and Five Year Monitoring Report and Cisco Chain of Lakes Nuisance Plant Control Plan Results

As per the Federal Energy Regulatory Commission (FERC) Order Modifying and Approving Article 411 Nuisance Plant Control Plan issued February 24, 2005, the Upper Peninsula Power Company (UPPCO) is required to submit the results of the purple loosestrife (PL) and Eurasian water milfoil (EWM) monitoring surveys for the Bond Falls Hydroelectric Project (FERC Project No. 1864) to the Bond Falls Implementation Team (BFIT).

In addition, per the FERC Order Modifying and Approving the Five-Year Report for EWM at the Bond Falls (FERC Project No. 1864-01), Victoria Falls (FERC Project No. 1864-02) and the Bergland Development (FERC Project No. 1864), dated May 5, 2011, UPPCO is to submit the five- year EWM survey results. The monitoring report shall contain a comparison of all data and a recommendation for the frequency of future EWM monitoring.

Finally, per the Notice of Proposed Changes to the Bond Falls Hydroelectric Project Approved Nuisance Plant Control Plan provided to FERC on June 7, 2011, UPPCO is to annually provide the PL and EWM survey results for the Cisco Chain of Lakes (FERC Project No. 1864).

2014 Bond Falls Hydroelectric Projects – PL Survey Results

Surveys for PL were completed at the Bond Falls reservoir on August 14, 2014, and for the Bergland Development, beginning at the end of August through September 2014.

A survey for PL at the Victoria Falls reservoir was not completed until October 22, 2014.

UPPCO awarded the proposal to complete the PL survey at the Victoria Falls reservoir well within the optimal PL Identification period. However, the awarded purchase order was sent via electronic mail and was later found not to be received by the consultant.

Even though the PL survey was completed outside of the optimal identification period, the consultant did indicate that emergent vegetation was still intact and visible. In addition, the consultant is a trained botanist and would be able to identify PL outside of the optimal identification period.

Mr. Burr Fischer
October 29, 2014
Page 2 of 3

Corrections to the consultant purchase order process have been implemented to address the issue. UPPCO apologizes for any inconvenience.

No PL was identified at the Bond Falls and Victoria Falls reservoirs. PL has not been observed at these reservoirs since first completing PL surveys in 2005.

Purple was once again observed at the Bergland Development. As in the past, nine colonies were identified as being located within the project boundary. Only two the colonies were considered large (50+ plants).

In consultation with the BFIT, UPPCO provided funding to the Lake Gogebic Improvement Association (LGIA) to control purple loosestrife on the reservoir. From August through September, the LGIA completed a hand pull and/or burn control on five colonies. However control at the two largest colonies was hindered this year due to lack of available biological control (*galerucella sp.*) beetles at one colony and curtailed due to safety concerns ; the presence of bald face hornets (*Dolichovespula maculata*), at the other large colony.

The purple loosestrife survey results for the Bergland Development are included in Appendix A.

2014 Bond Falls Hydroelectric Projects – EWM Survey Results

EWM surveys were completed at the Bergland Development from late August through September of 2014. No EWM was observed at any of the five transect locations.

A survey for EWM at Bond Falls and Victoria Falls reservoir was not completed until October 22, 2014.

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Even though the EWM survey was completed outside of the optimal identification period, the consultant did indicate that aquatic vegetation was plentiful and in overall fair health. In addition, the consultant is a trained botanist and would be able to identify EWM outside of the optimal identification period. No EWM was identified at the Bond Falls and Victoria Falls reservoirs.

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EWM has not been observed at any of the three reservoirs during any of the EWM surveys being in 2005. The EWM survey results are included in Appendix B.

Mr. Burr Fischer
October 29, 2014
Page 3 of 3

EWM Five Year Report for Bond Falls, Victoria Falls and Bergland Development

In 2005 UPPCO selected EWM transect sample locations at Bond Falls and Victoria Falls reservoirs and the Bergland Development. A total of ten transect sample locations were established near boat landings and other areas of high public use. These sample locations were selected because they would most likely be the first location where EWM would be introduced into a water system.

Over the past five years, UPPCO has been completing surveys of the EWM transects at these same EWM transect locations. EWM has not been observed at any of the EWM transect sample locations.

Although EWM has not been observed at any of the transect sample locations nor within their respective reservoirs, UPPCO recommends maintaining the current EWM sampling methodology and completing the EWM surveys on an annual basis.

UPPCO believes that because EWM has not been observed to date, maintaining the current sampling methods will provide UPPCO with the best opportunity to quickly address and control and/or eliminate EWM if found on the Bond Falls and Victoria Falls reservoirs and Bergland Development.

EWM survey results from years 2010 through 2014 are included in Appendix C.

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Updates on EWM control activities will be provided and discussed at the BFIT meeting this March/April.

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

Sincerely,



Jamie Nuthals
Environmental Services
Natural Resource Management
UPPCO
(920) 433-1460



Upper Peninsula Power Company
500 North Washington Street
Ishpeming, MI 49849
www.UPPCO.com

October 29, 2014

FERC Project No. 1864

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

Dear Mr. Mensch:

Bond Falls Hydroelectric Project

Article 411 Noxious Plants Monitoring Plan – 2014 Purple Loosestrife and Eurasian Water Milfoil Survey Results and Five Year Monitoring Report and Cisco Chain of Lakes Nuisance Plant Control Plan Results

As per the Federal Energy Regulatory Commission (FERC) Order Modifying and Approving Article 411 Nuisance Plant Control Plan issued February 24, 2005, the Upper Peninsula Power Company (UPPCO) is required to submit the results of the purple loosestrife (PL) and Eurasian water milfoil (EWM) monitoring surveys for the Bond Falls Hydroelectric Project (FERC Project No. 1864) to the Bond Falls Implementation Team (BFIT).

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Mr. Gene Mensch
October 29, 2014
Page 2 of 3

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Mr. Gene Mensch
October 29, 2014
Page 3 of 3

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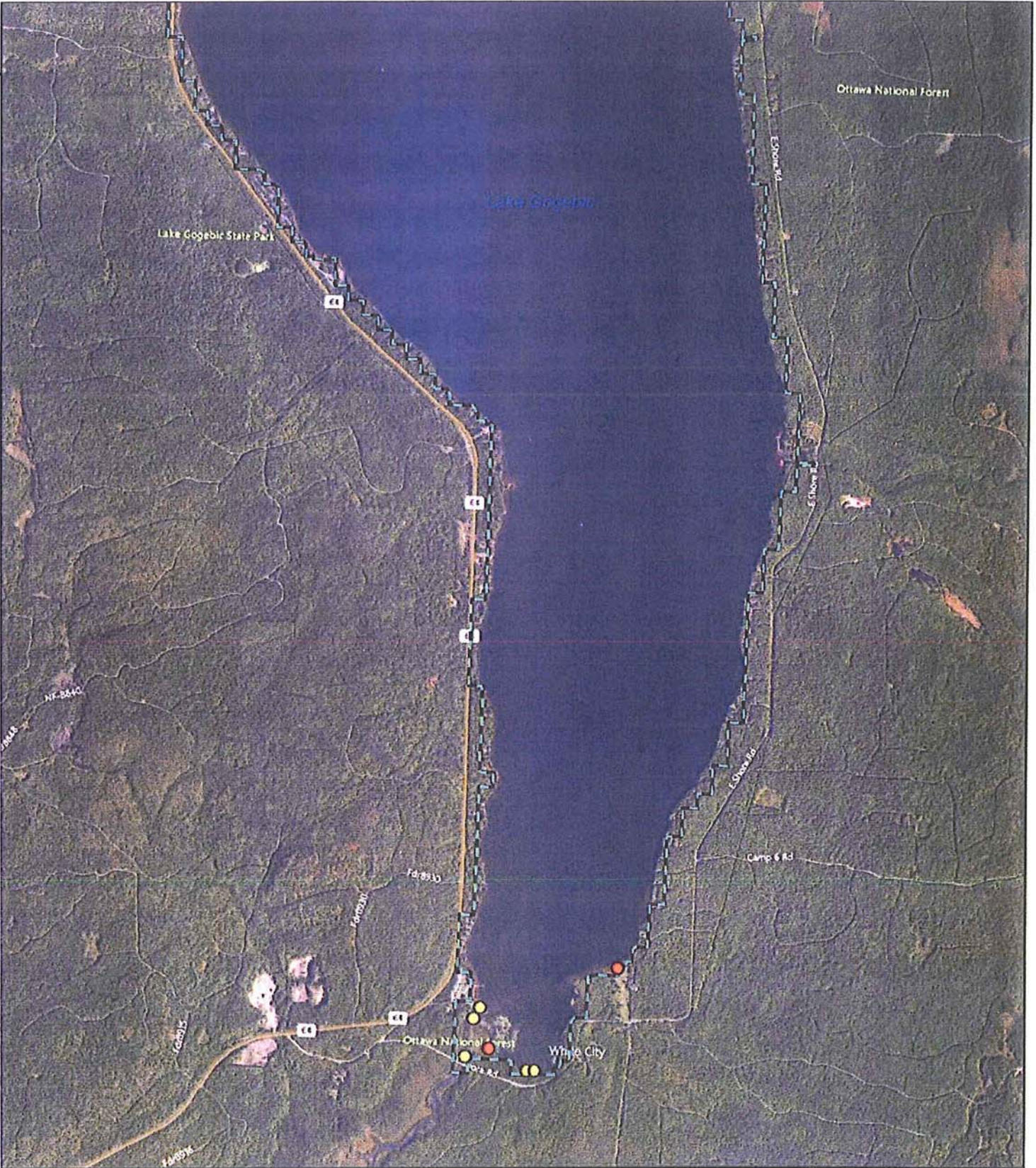
Should you have any questions relative to this material, please do not hesitate to contact me at (920) 433-1460.

Sincerely,




Jamie Nuthals
Environmental Services
Natural Resource Management
UPPCO
(920) 433-1460

APPENDIX A







Lake Gogebic, MI

Purple Loosestrife Survey

2014

0

0.5

1

Miles

Date: 10/29/2014

Imagery: Bing Maps

Legend

-  Project Boundary
- Purple Loosestrife**
 -  0-5 Plants
 -  6-50 Plants
 -  >50 Plants

N



Lake Gogebic-Ontonagon/Gogebic Counties-Michigan

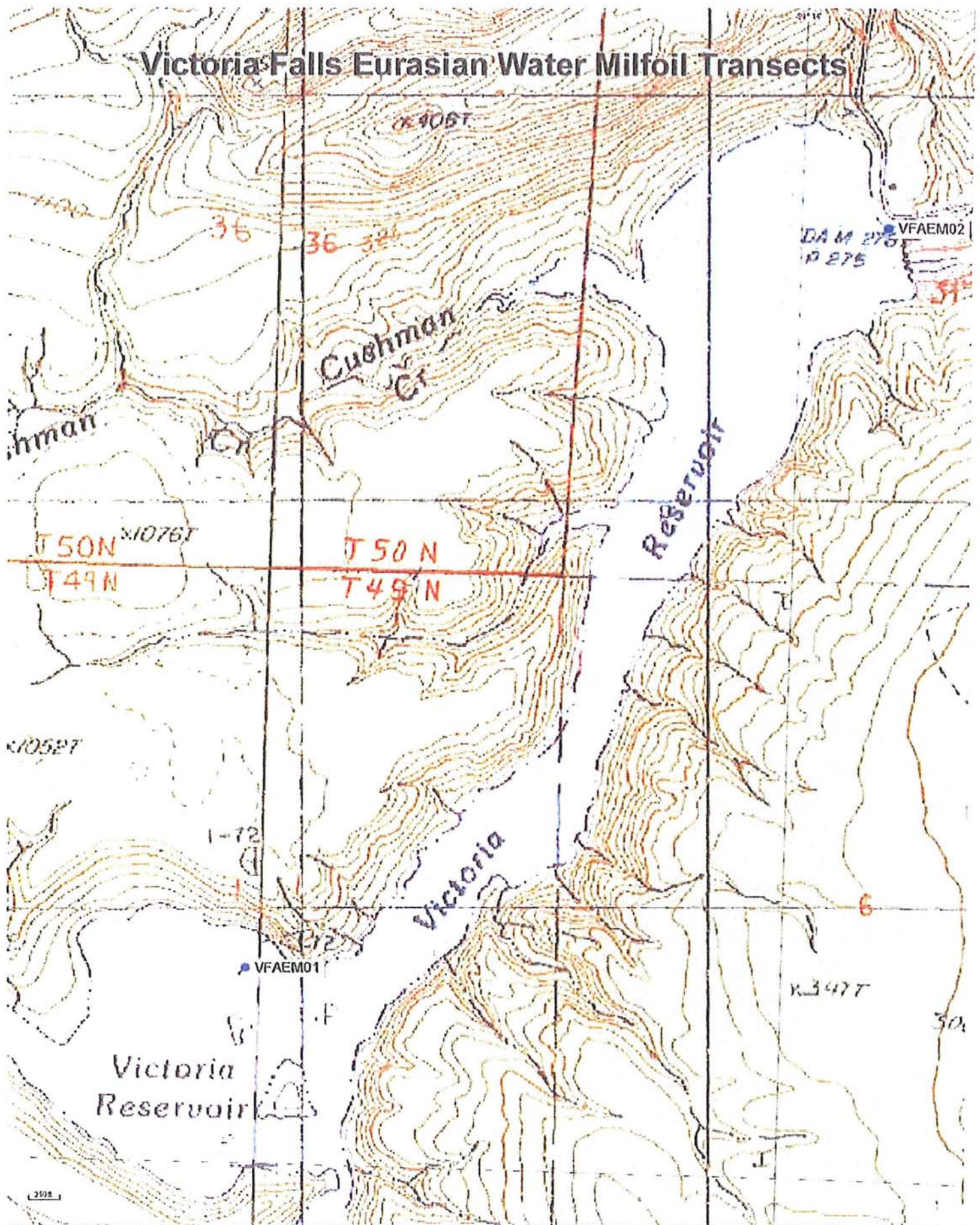
APPENDIX B

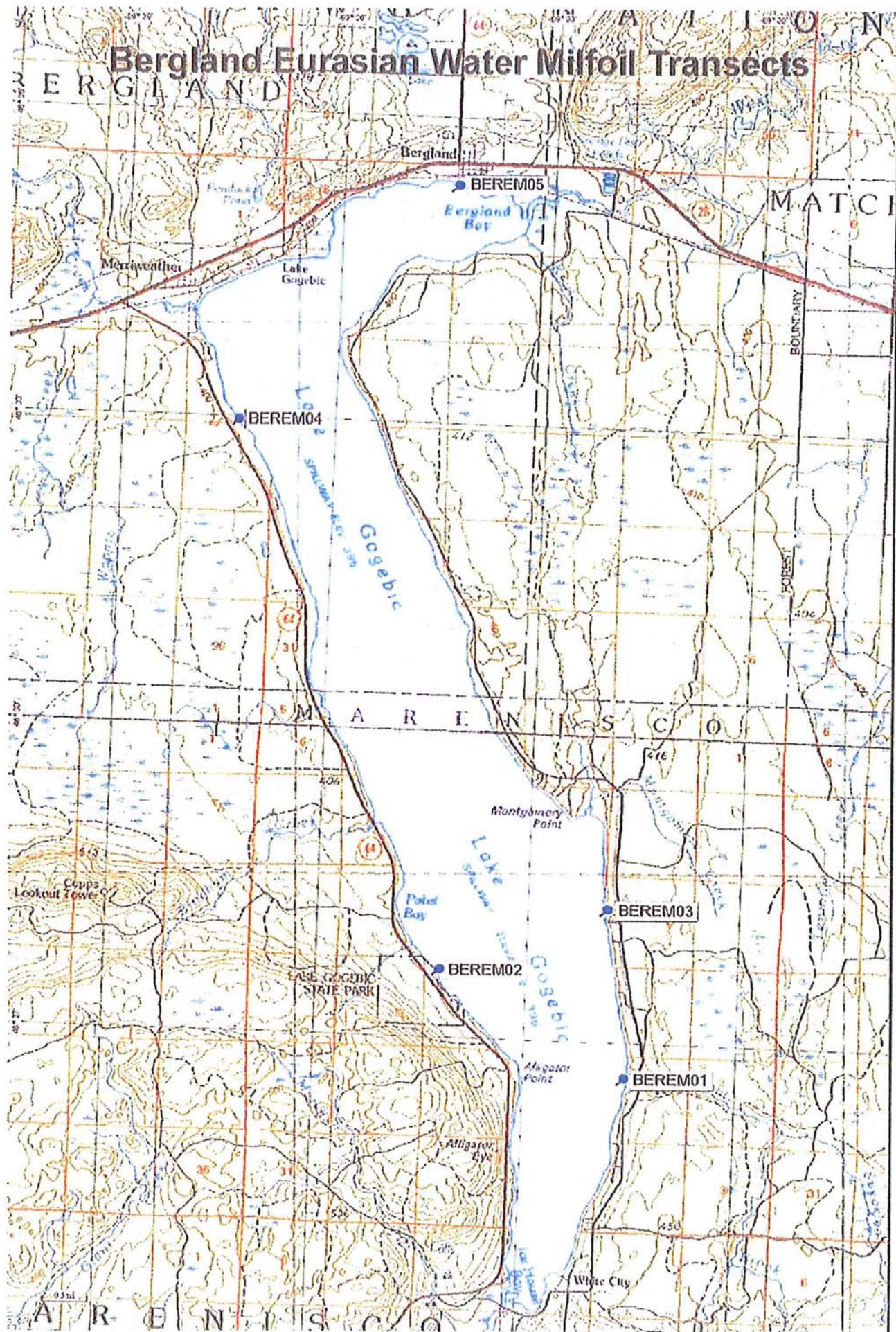
Bond Falls Eurasian Water Milfoil Transects

The map displays the Bond Falls area with various transects marked: BFAEM01, BFAEM02, BFAEM03, and BFAEM04. It includes contour lines, water bodies (Bond Lake, Bond Pond, Little Falls), and surrounding areas like Calderwood and Decatur Creek. A scale bar indicates 0 to 100 feet.

Bond Falls Eurasian Water Milfoil Transects

The map displays the Bond Falls area with various transects marked: BFAEM01, BFAEM02, BFAEM03, and BFAEM04. It includes contour lines, water bodies (Bond Lake, Bond Pond, Little Falls), and roads (Old Rd, New Rd). The map is oriented with North at the top.





Mr. James Nufnalz
October 28, 2014
Project No. D141704.00

Page 2

Results:

The following tables summarize the findings of the field surveys:

Table 1
BOND FALLS HYDROELECTRIC PROJECT EURASIAN WATER MILFOIL SURVEY
OCTOBER 22, 2014

Transect #	0-0.5m	0.5-1.5m	1.5-30m	>3.0m	Origin	Notes
1A	0	0	NA	NA	N 46 22,917	Potamogeton present
1B	0	0	NA	NA	W 89 04.757	
1C	0	0	0	NA		
2A	0	0	NA	NA	N 46 23.553	Elodea, Potamogeton, Ceratophyllum present
2B	0	0	NA	NA	W 89 07.503	
2C	0	0	NA	NA		
3A	0	0	NA	NA	N 46 23.827	Potamogeton sparsely present
3B	0	0	NA	NA	W 89 07.631	
3C	0	0	0	NA		

Table 2
VICTORIA FALLS HYDROELECTRIC PROJECT EURASIAN WATER MILFOIL SURVEY
OCTOBER 22, 2014

Transect #	0-0.5m	0.5-1.5m	1.5-30m	>3.0m	Origin	Notes
1A	0	0	NA	NA	N 46 40.259	Potamogeton present
1B	0	0	0	NA	W 89 15.038	
1C	0	0	0	NA		
2A	0	0	NA	NA	N 46 41.266	Potamogeton present
2B	0	0	NA	NA	W 89 13.837	
2C	0	0	NA	NA		

Eurasian Milfoil Surveys Bergland Development				
Transect #	0 - 0.5 M	0.5 - 1.5 M	1.5 - 3.0 M	> 3.0 M
1A	0	0	N/A	N/A
1B	0	0	N/A	N/A
1C	0	0	N/A	N/A
2A	0	0	N/A	N/A
2B	0	0	0	N/A
2C	0	0	0	N/A
3A	0	0	N/A	N/A
3B	0	0	0	N/A
3C	0	0	0	0
4A	0	N/A	N/A	N/A
4B	0	0	N/A	N/A
4C	0	0	0	0
5A	0	N/A	N/A	N/A
5B	0	0	0	0
5C	0	0	0	0

Abundance Scale: 0-Absent, 1-Present, 2-Presence Less Than Half, 3-Equal Presence Compared to Other Species,
4-Dominant Species Present, 5-Total Infestation

APPENDIX C

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							

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							

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							

Eurasian Milfoil Survey - August 1, 2011				
Bond Falls, Ontonagon County, Michigan				
Transect #	0 - 0.5 M	0.5 - 1.5 M	1.5 - 3.0 M	> 3.0 M
1A	0	0	NA	NA
1B	0	0	NA	NA
1C	0	0	NA	NA
2A	0	0	NA	NA
2B	0	0	NA	NA
2C	0	0	NA	0
3A	0	0	NA	NA
3B	0	0	NA	NA
3C	0	0	NA	0

Abundance Scale	
0	Absent
1	Present
2	Abundance Less than Half
3	Equal Presence Compared to Other Species
4	Dominant Species
5	Total Infestation

Eurasian Milfoil Survey - August 1, 2011				
Victoria Falls, Ontonagon County, Michigan				
Transect #	0 - 0.5 M	0.5 - 1.5 M	1.5 - 3.0 M	> 3.0 M
1A	0	0	NA	NA
1B	0	0	0	NA
1C	0	0	0	NA
2A	0	0	NA	NA
2B	0	0	NA	NA
2C	0	0	0	NA

Abundance Scale	
0	Absent
1	Present
2	Abundance Less than Half
3	Equal Presence Compared to Other Species
4	Dominant Species
5	Total Infestation

Eurasian Milfoil Survey - August 2, 2011				
Lake Gogebic, Gogebic County, Michigan				
Transect #	0 - 0.5 M	0.5 - 1.5 M	1.5 - 3.0 M	> 3.0 M
1A	0	0	NA	NA
1B	0	0	NA	NA
1C	0	0	NA	NA
2A	0	0	NA	NA
2B	0	0	NA	NA
2C	0	0	0	NA
3A	0	0	NA	NA
3B	0	0	0	NA
3C	0	0	0	NA
4A	0	0	NA	NA
4B	0	0	NA	NA
4C	0	0	NA	NA
5A	0	0	NA	NA
5B	0	0	NA	NA
5C	0	0	NA	NA

Abundance Scale	
0	Absent
1	Present
2	Abundance Less than Half
3	Equal Presence Compared to Other Species
4	Dominant Species
5	Total Infestation

Eurasian Milfoil Survey - August 27, 2012				
Bond Falls, Ontonagon County, Michigan				
Transect #	0 - 0.5 M	0.5 - 1.5 M	1.5 - 3.0 M	> 3.0 M
1A	0	0	NA	NA
1B	0	0	NA	NA
1C	0	0	NA	NA
2A	0	0	NA	NA
2B	0	0	NA	NA
2C	0	0	NA	0
3A	0	0	NA	NA
3B	0	0	NA	NA
3C	0	0	NA	0

Abundance Scale	
0	Absent
1	Presence Less than Half
2	Equal Presence Compared to Other Species
3	Dominant Species
4	Total Infestation

Eurasian Milfoil Survey - August 27, 2012				
Victoria Falls, Ontonagon County, Michigan				
Transect #	0 - 0.5 M	0.5 - 1.5 M	1.5 - 3.0 M	> 3.0 M
1A	0	0	NA	NA
1B	0	0	0	NA
1C	0	0	0	NA
2A	0	0	NA	NA
2B	0	0	NA	NA
2C	0	0	0	NA

Abundance Scale	
0	Absent
1	Presence Less than Half
2	Equal Presence Compared to Other Species
3	Dominant Species
4	Total Infestation

Eurasian Milfoil Survey - August 28, 2012				
Lake Gogebic, Gogebic County, Michigan				
Transect #	0 - 0.5 M	0.5 - 1.5 M	1.5 - 3.0 M	> 3.0 M
1A	0	0	NA	NA
1B	0	0	NA	NA
1C	0	0	NA	NA
2A	0	0	NA	NA
2B	0	0	NA	NA
2C	0	0	0	NA
3A	0	0	NA	NA
3B	0	0	0	NA
3C	0	0	0	NA
4A	0	0	NA	NA
4B	0	0	NA	NA
4C	0	0	NA	NA
5A	0	0	NA	NA
5B	0	0	NA	NA
5C	0	0	NA	NA

Abundance Scale	
0	Absent
1	Presence Less than Half
2	Equal Presence Compared to Other Species
3	Dominant Species
4	Total Infestation

Eurasian Milfoil Surveys				
Bond Falls Hydroelectric Project				
8-Aug-13				
Transect #	0 - 0.5 M	0.5 - 1.5 M	1.5 - 3.0 M	> 3.0 M
1A	0	0	N/A	N/A
1B	0	0	N/A	N/A
1C	0	0	N/A	N/A
2A	0	0	N/A	N/A
2B	0	0	N/A	N/A
2C	0	0	N/A	N/A
3A	0	0	N/A	N/A
3B	0	0	0	N/A
3C	0	0	0	0

Abundance Scale: 0-Absent, 1-Present, 2-Presence Less Than Half, 3-Equal Presence Compared to Other Species, 4-Dominant Species Present, 5-Total Infestation

Lake Gogebic Eurasian Watermilfoil Survey – August 8 and 9, 2013

White Water Associates Field Staff: Caitlin Clarke and Angie Stine
Gogebic and Ontonagon Counties, Michigan



Transect #	0-0.5 m	0.5-1.5 m	1.5-3.0 m	>3.0 m	Origin	Notes
1A	0	0	NA	NA	N 46 26.642 W 89 31.587 (46.44403, -89.52645)	No aquatic plants observed. A few hundred feet south of Trout Brook. Substrate of rock and cobble.
1B	0	0	NA	NA		
1C	0	0	NA	NA		
2A	0	0	NA	NA	N 46 27.653 W 89 34.259 (46.46088, -89.57098)	No aquatic plants observed. In front of campsites. Substrate of rock and cobble.
2B	0	0	0	NA		
2C	0	0	0	0		
3A	0	0	NA	NA	N 46 28.294 W 89 31.883 46.47157, -89.53138)	No aquatic plants observed. South of boat landing a few hundred feet in small cove. Substrate of rock and cobble.
3B	0	0	0	NA		
3C	0	0	0	0		
4A	0	NA	NA	NA	N 46 32.964 W 89 37.401 (46.54940, -89.62335)	<i>Valisneria Americana</i> present. Thirty feet north of park with sand beach and boat launch. Substrate of sand and rock.
4B	0	0	NA	NA		
4C	0	0	0	0		
5A	0	NA	NA	NA	N 46 35.338 W 89 34.391 (46.58897, -89.57318)	<i>Valisneria Americana</i> and <i>Potamogeton richardsonii</i> present. Fifty feet west of Bergland boat launch on east side of large concrete pier. Substrate of sand and rock
5B	0	0	0	0		
5C	0	0	0	0		

NA: Not Applicable

Abundance Scale: 0-EWM absent, 1-EWM present, 2 –EWM presence less than half, 3-EWM equal presence compared to other species, 4-EWM dominant species present, 5-EWM total infestation.

Note: Transects are 40 ft long and proceed away from shore in a direction perpendicular to the shoreline

Mr. Jamie Nuthals
October 28, 2014
Project No. D141704.00

Page 2

Results:

The following tables summarize the findings of the field surveys:

Table 1
BOND FALLS HYDROELECTRIC PROJECT EURASIAN WATER MILFOIL SURVEY
OCTOBER 22, 2014

Transect #	0-0.5m	0.5-1.5m	1.5-30m	>3.0m	Origin	Notes
1A	0	0	NA	NA	N 46 22,917	Potamogeton present
1B	0	0	NA	NA	W 89 04.757	
1C	0	0	0	NA		
2A	0	0	NA	NA	N 46 23.553	Elodea, Potamogeton, Ceratophyllum present
2B	0	0	NA	NA	W 89 07.503	
2C	0	0	NA	NA		
3A	0	0	NA	NA	N 46 23.827	Potamogeton sparsely present
3B	0	0	NA	NA	W 89 07.631	
3C	0	0	0	NA		

Table 2
VICTORIA FALLS HYDROELECTRIC PROJECT EURASIAN WATER MILFOIL SURVEY
OCTOBER 22, 2014

Transect #	0-0.5m	0.5-1.5m	1.5-30m	>3.0m	Origin	Notes
1A	0	0	NA	NA	N 46 40.259	Potamogeton present
1B	0	0	0	NA	W 89 15.038	
1C	0	0	0	NA		
2A	0	0	NA	NA	N 46 41.266	Potamogeton present
2B	0	0	NA	NA	W 89 13.837	
2C	0	0	NA	NA		

Eurasian Milfoil Surveys				
Bergland Development				
Transect #	0 - 0.5 M	0.5 - 1.5 M	1.5 - 3.0 M	> 3.0 M
1A	0	0	N/A	N/A
1B	0	0	N/A	N/A
1C	0	0	N/A	N/A
2A	0	0	N/A	N/A
2B	0	0	0	N/A
2C	0	0	0	N/A
3A	0	0	N/A	N/A
3B	0	0	0	N/A
3C	0	0	0	0
4A	0	N/A	N/A	N/A
4B	0	0	N/A	N/A
4C	0	0	0	0
5A	0	N/A	N/A	N/A
5B	0	0	0	0
5C	0	0	0	0

Abundance Scale: 0-Absent, 1-Present, 2-Presence Less Than Half, 3-Equal Presence Compared to Other Species, 4-Dominant Species Present, 5-Total Infestation

APPENDIX D

2014 Cisco Chain EWM Transect Survey Results				
Lake Name	Depth Quarter (m)	Transect ID		
		1A	1B	1C
Clearwater	0-0.5	0	0	0
	0.5-1.5	0	0	0
	1.5-3.0	0	0	0
	>3.0	0	0	0
		2A	2B	2C
Clearwater	0-0.5	0	0	0
	0.5-1.5	0	0	0
	1.5-3.0	0	0	0
	>3.0	0	0	0
		3A	3B	3C
Big Africa	0-0.5	0	0	0
	0.5-1.5	0	0	0
	1.5-3.0	0	0	0
	>3.0	0	0	0
		4A	4B	4C
Thousand Island	0-0.5	0	0	0
	0.5-1.5	0	0	0
	1.5-3.0	0	0	0
	>3.0	0	0	0
		5A	5B	5C
Thousand Island	0-0.5	0	0	0
	0.5-1.5	0	0	0
	1.5-3.0	0	0	0
	>3.0	0	0	0
		6A	6B	6C
Thousand Island	0-0.5	0	0	0
	0.5-1.5	0	0	0
	1.5-3.0	0	0	0
	>3.0	0	0	0
		7A	7B	7C
Thousand Island	0-0.5	0	0	0
	0.5-1.5	0	0	0
	1.5-3.0	0	0	0
	>3.0	0	0	0

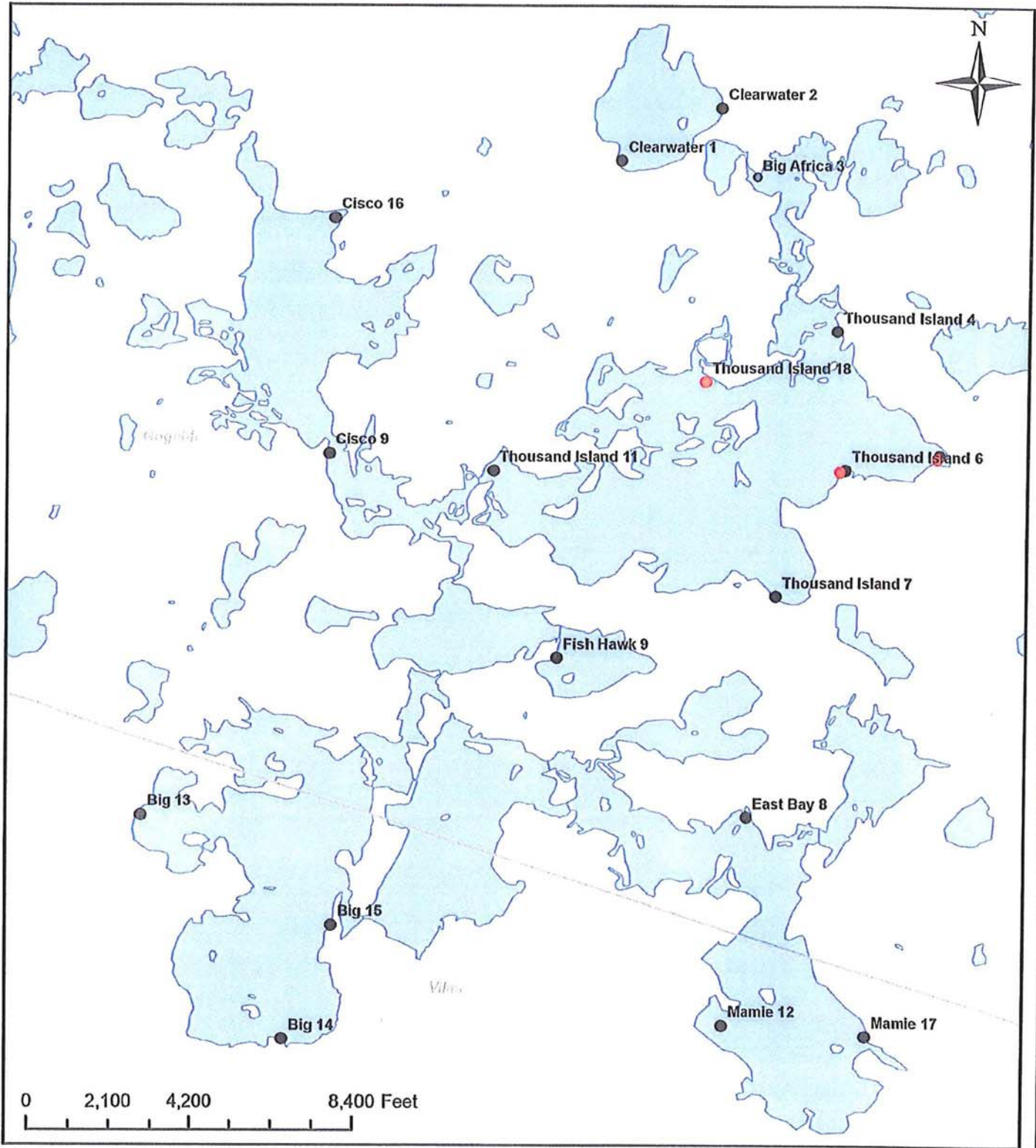
2014 Cisco Chain EWM Transect Survey Results				
Lake Name	Depth Quarter (m)	Transect ID		
East Bay	0-0.5	0	0	0
	0.5-1.5	0	0	0
	1.5-3.0	0	0	0
	>3.0	depth did not exceed 3m		
		9A	9B	9C
Fishhawk	0-0.5	0	0	0
	0.5-1.5	0	0	0
	1.5-3.0	0	0	0
	>3.0	0	0	0
		10A	10B	10C
Cisco	0-0.5	0	0	0
	0.5-1.5	0	0	0
	1.5-3.0	0	0	0
	>3.0	depth did not exceed 3m		
		11A	11B	11C
Thousand Island	0-0.5	0	0	0
	0.5-1.5	0	0	0
	1.5-3.0	0	0	0
	>3.0	depth did not exceed 3m		
		12A	12B	12C
Mamie	0-0.5	0	0	0
	0.5-1.5	0	0	0
	1.5-3.0	0	0	0
	>3.0	0	0	0
		13A	13B	13C
Big	0-0.5	0	0	0
	0.5-1.5	0	0	0
	1.5-3.0	0	0	0
	>3.0	0	0	0
		14A	14B	14C
Big	0-0.5	0	0	0
	0.5-1.5	0	0	0
	1.5-3.0	0	0	0
	>3.0	0	0	0

2014 Cisco Chain EWM Transect Survey Results				
Lake Name	Depth Quarter (m)	Transect ID		
		15A	15B	15C
Big	0-0.5	0	0	0
	0.5-1.5	0	0	0
	1.5-3.0	0	0	0
	>3.0	0	0	0
		16A	16B	16C
Cisco	0-0.5	0	0	0
	0.5-1.5	0	0	0
	1.5-3.0	0	0	0
	>3.0	0	0	0
		17A	17B	17C
Mamie	0-0.5	0	0	0
	0.5-1.5	0	0	0
	1.5-3.0	0	0	0
	>3.0	0	0	0
		18A	18B	18C
Thousand Island	0-0.5	0	0	1
	0.5-1.5	0	0	0
	1.5-3.0	0	0	0
	>3.0	0	0	0

Key	
Ranking	Description
0	EWM absent
1	EWM present on less than half
2	EWM equal compared to other species
3	EWM dominant
4	EWM total infestation

Cisco Chain of Lakes

Eurasian Watermilfoil Transect Survey Locations



Location: Cisco Chain of Lakes, Gogebic County, MI & Vilas County, WI
Source: FERC_EWM_PIS_CiscoChain_2014, MiGDI Lake_polygons_200304
ESRI Base Maps

● EWM Location

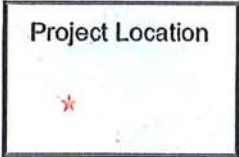
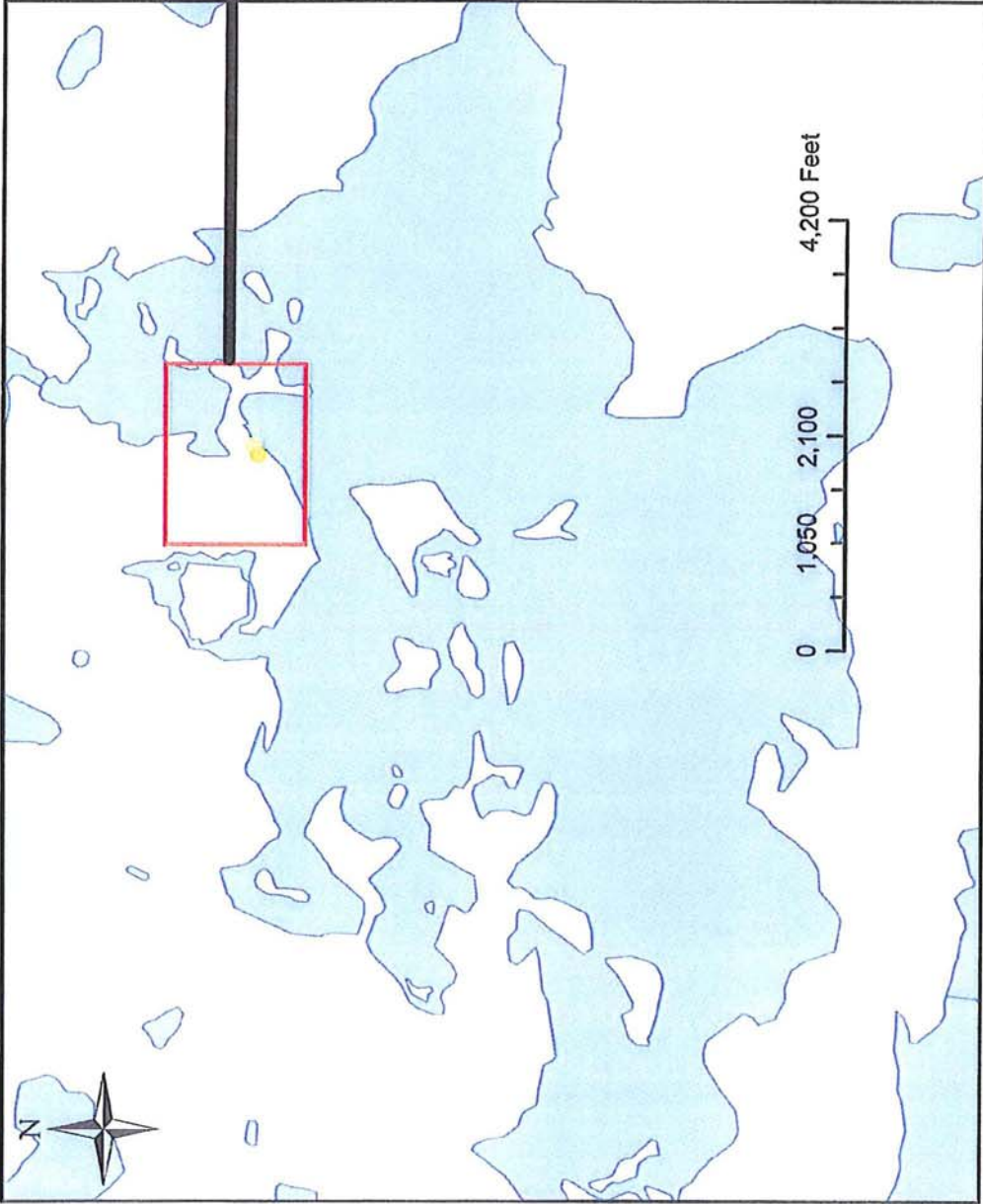


Figure 3
Cisco Chain
Eurasian Watermilfoil
Survey Locations

2014 Purple Loosestrife Survey Results - Cisco Chain of Lakes				
Lake	Colony Description	Colony Size	Spatial Identification Latitude/Longitude (NAD 83)	
Thousand Island	Small Colony ("A")	1-5 plants	46.23807	89.39837
Thousand Island	Medium Colony ("B")	6-50 plants	46.23791	89.39869

Cisco Chain of Lakes 2014 Purple Loosestrife Locations



Location: Cisco Chain of Lakes, Gogebic County, MI & Vilas County, WI
Source: FERC_EWM_PLS_CiscoChain_2014_MIGOL Lake_polygon_200304
ESRI Base Maps

- A - Small Colony
- B - Medium Plant Colony

Figure 2
Purple Loosestrife Locations
Thousand Island Lake

Project Location

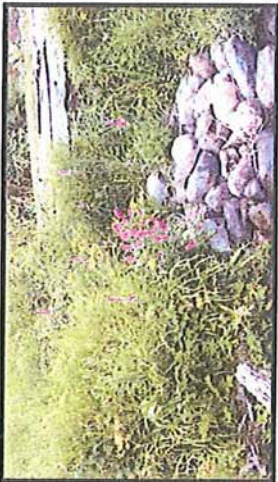


Photo of Medium Colony

US FISH AND WILDLIFE SERVICE COMMENTS

Nuthals, James D

From: Fisher, Burr <burr_fisher@fws.gov>
Sent: Tuesday, November 04, 2014 10:19 AM
To: Nuthals, James D; Jack Dingleline
Subject: Re: 2014 UPPCO Bond Falls Hydroelectric Project - EWM and PL Survey Results

Thanks Jim. It doesn't look like the two invasive plants are a problem with these surveys results. We have no additional comments.

Burr

On Wed, Oct 29, 2014 at 1:13 PM, Nuthals, James D <JDNuthals@integrysgroup.com> wrote:

Greetings,

Please reference UPPCO's 2014 Bond Falls Hydroelectric Project Eurasian watermilfoil and purple loosestrife survey results.

Please provide comments within thirty (30) days of receiving this information.

Sincerely,

James D Nuthals

Natural Resource Management | Environmental Services | Integrys Business Support, LLC

920-433-1460

920-309-0741 *cell (please note cell phone number change)*

920-433-1176 *fax*

jduthals@integrysgroup.com

www.integrysgroup.com

Providing support for Integrys Energy Groups, Michigan Gas Utilities, Minnesota Energy Resources, North Shore Gas, Peoples Gas, Wisconsin Public Service, and Wisconsin River Power.

UPPCO RESPONSE

US Fish & Wildlife Service Comment

It doesn't look like the two invasive plants are a problem with these surveys results.

UPPCO Response

Comment Noted.

US Fish & Wildlife Service Comment

We have no additional comments.

UPPCO Response

Comment Noted.

Document Content(s)

20141226BFFERCLetter.PDF.....1-4

Appendix A.PDF.....5-7

Appendix B.PDF.....8-13

Appendix C.PDF.....14-27

Appendix D.PDF.....28-34

Appendix E.PDF.....35-90