



Wisconsin Public Service Corporation

700 North Adams Street
P.O. Box 19001
Green Bay, WI 54307-9001

www.wisconsinpublicservice.com

September 30, 2020

Electronically Filed

Ms. Cheryl Laatsch
Wisconsin Department of Natural Resources
PO Box 7921
Madison, WI 53707-7921

Dear Ms. Laatsch:

SUBJECT: Comprehensive Land and Wildlife Management Plan-Purple Loosestrife, Eurasian Watermilfoil and Zebra Mussel Monitoring Report

<u>Hydro</u>	<u>FERC Project No.</u>	<u>NATDAM No.</u>	<u>License Article</u>
Caldron Falls	2525	WI00759	412
High Falls	2595	WI00754	409
Johnson Falls	2522	WI00758	410
Sandstone Rapids	2546	WI00760	411
Peshtigo	2581	WI00756	408
Potato Rapids	2560	WI00757	409

In accordance with the Federal Energy Regulatory Commission (FERC) Order Approving the updated Comprehensive Land and Wildlife Management Plan (CLWMP) - Invasive Species Monitoring Plan for the Peshtigo Hydroelectric Project, Potato Rapids Hydroelectric Project, Caldron Falls Hydroelectric, High Falls Hydroelectric Project, Johnson Falls Hydroelectric Project and Sandstone Rapids issued on August 23, 2018, Wisconsin Public Service (WPS) is to provide monitoring reports of the purple loosestrife (PL), Eurasian watermilfoil (EWM), and zebra mussel (ZM) surveys to the Wisconsin Department of Natural Resources (WDNR) and U.S. Fish & Wildlife Service (FWS) by September 30, each year a survey has been completed.

2020 Purple Loosestrife Survey Results

PL surveys were completed on the Peshtigo River Hydroelectric Projects from August 3 through August 6, 2020. Twenty-five colonies of PL were identified on the Peshtigo Hydroelectric Project and two colonies on the Potato Rapids Hydroelectric Project. Four small colonies on the Peshtigo were completely hand pulled and disposed of offsite. *Galerucella* beetle herbivory was observed on ten of the twenty-five identified colonies. No other PL colonies were identified at any of the other Peshtigo River Hydroelectric Projects. Appendix A includes the PL survey results.

A review of the past four surveys (nine years of data) shows that the number of colonies has ranged between eleven and twenty-five and currently sits at twenty-five. A copy of the summary of the last 4 surveys is included at the end of Appendix A. WPS will complete the next PL survey in 2023, in conjunction with the EWM surveys for all of the Peshtigo River Hydroelectric Projects.

2020 Eurasian Watermilfoil Survey Results

EWM surveys were completed on the Peshtigo River Hydroelectric Projects from August 3 through

August 6, 2020. EWM was observed at all six hydroelectric projects. EWM populations were observed in greater numbers than in 2017 at the Potato Rapids Hydroelectric Project (10 to 13.5 acres); and decreased EWM populations were observed at Caldron Falls (167 to 140 acres), High Falls (536 to 526 acres), Johnson Falls (3 to 0.15 acres), Sandstone Rapids (17 to 13 acres), and Peshtigo (72 to 26 acres) Hydroelectric Projects. Appendix B includes the 2020 EWM survey results and figures for the six projects. WPS will complete the next EWM survey in 2023, in conjunction with the PL surveys for all of the Peshtigo River Hydroelectric Projects.

Overall, the changes in EWM populations are similar to fluctuations observed in previous surveying events on the Peshtigo River Hydroelectric Projects and at other WPS hydroelectric projects on the Wisconsin and Menominee Rivers. It is also important to note that the acres included on the figures represent the furthest extent of where the EWM was identified. Diverse and native aquatic vegetation exists within the EWM mapped population boundaries. In approximately 96 percent of the transects sampled, EWM was observed as present, and comprised less than half of the total aquatic vegetation present.

2018 -2020 Zebra Mussel Sampling Results

ZM substrate samplers were placed annually (2018-2020) from May through September at the Caldron Falls and Johnson Falls Hydroelectric Projects. Not all monthly data was recorded for the survey period. The most recent survey observations show that zebra mussels have yet to be detected at Johnson Falls and Caldron Falls. Appendix C provides an example of the monthly substrate sampling results that were collected in 2018. Per the CLWMP, ZM sampling will continue at the Caldron Falls and Johnson Falls Hydroelectric Projects until a zebra mussel is found.

On May 26, 2018, a ZM was identified at the High Falls Hydroelectric Project attached to another mussel species in the reservoir. See Appendix D for the location, pictures and copies of the letters sent to the agencies in 2018. Per the CLWMP, ZM monitoring at the High Falls Hydroelectric Project was discontinued.

Per the CLWMP, ZM surveys have been discontinued at the Sandstone Rapids, Potato Rapids, and Peshtigo Hydroelectric Projects after previously finding ZM at those projects.

Please provide any comments you may have regarding this report within 30 days. Should you have any questions relative to this material, please do not hesitate to contact me at (920) 433-5558 or Jessica.Roloff@wecenergygroup.com.

Sincerely,



Jes Roloff
Environmental Consultant
Wisconsin Public Service
700 North Adams Street
Green Bay, WI 54301

Enc: Appendix A – 2020 Purple Loosestrife Survey Results (9 pages)
Appendix B – 2020 Eurasian Water Milfoil Survey Results (13 pages)
Appendix C – 2018 Zebra Mussel Monthly Substrate Sampling Example (2 pages)
Appendix D – 2018 High Falls Hydroelectric Project Zebra Mussel Identification (9 pages)





Cc: Mr. Nicholas Utrup, USFWS

APPENDIX A

2020 PURPLE LOOSESTRIFE SURVEY RESULTS

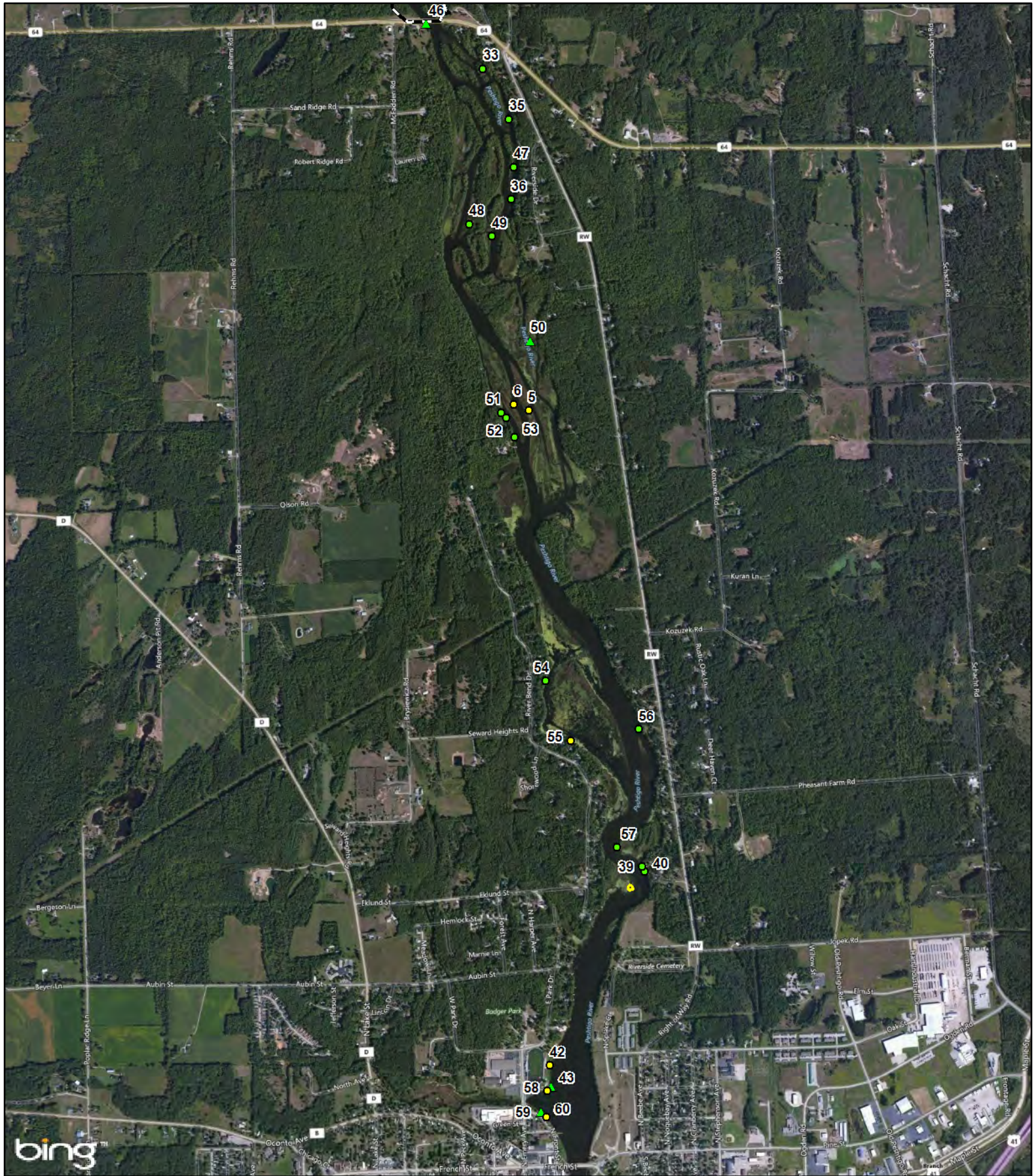


**WPS Potato Rapids
Hydroelectric Project
Purple Loosestrife
Survey 2020**

-  Project Boundary
-  Small
-  Small; Pulled All Plants
-  Medium



9/23/2020



**WPS Peshtigo
Hydroelectric Project
Purple Loosestrife
Survey 2020**

- Project Boundary
- Purple Loosestrife, Medium
- Small
- Small; Pulled All Plants
- Medium



0 1 Miles

9/23/2020

Purple Loosestrife Survey Form

Hydroelectric project: The Peshtigo Hydroelectric Project

Inspection date: August 6, 2020

Colony ID #	Colony Size S 0-5 M 6-50 L >50	General Plant Vigor			Total Plant Vigor 10-12 = good 7-9 = fair 4-6 = poor 0-3 = very poor	Notes
		Plant Height 4 = >4ft 3 = 2-4ft 2 = 1-2ft 1 = <1ft	Plant Flowering 4 = 100% of plants 3 = 51-99% of plants 2 = 26-50% of plants 1 = <25% of plants	Beetle Feeding 5 = 0% feeding 4 = 1 - 25% feeding 3 = 26-50% feeding 2 = 51-75% feeding 1 = >76% feeding		
1		No Longer Able To Identify				
2		No Longer Able To Identify				
3	M 6-50	4	4	4	12	
4		No Longer Able To Identify				
5	M 6-50	4	4	4	12	
6	M 6-50	4	4	4	12	
7		No Longer Able To Identify				
8		No Longer Able To Identify				
9		No Longer Able To Identify				
10		No Longer Able To Identify				
11		No Longer Able To Identify				
12		No Longer Able To Identify				
13		No Longer Able To Identify				
14		No Longer Able To Identify				
15		No Longer Able To Identify				

Purple Loosestrife Survey Form

Hydroelectric project: The Peshtigo Hydroelectric Project

Inspection date: August 6, 2020

Colony ID #	Colony Size S 0-5 M 6-50 L >50	General Plant Vigor			Total Plant Vigor 10-12 = good 7-9 = fair 4-6 = poor 0-3 = very poor	Notes
		Plant Height 4 = >4ft 3 = 2-4ft 2 = 1-2ft 1 = <1ft	Plant Flowering 4 = 100% of plants 3 = 51-99% of plants 2 = 26-50% of plants 1 = <25% of plants	Beetle Feeding 5 = 0% feeding 4 = 1 - 25% feeding 3 = 26-50% feeding 2 = 51-75% feeding 1 = >76% feeding		
16						No Longer Able To Identify
17						No Longer Able To Identify
18						No Longer Able To Identify
19						No Longer Able To Identify
20						No Longer Able To Identify
21						No Longer Able To Identify
22						No Longer Able To Identify
23						No Longer Able To Identify
24						No Longer Able To Identify
25						No Longer Able To Identify
26						No Longer Able To Identify
27						No Longer Able To Identify
28						No Longer Able To Identify
29						No Longer Able To Identify
30						No Longer Able To Identify

Purple Loosestrife Survey Form

Hydroelectric project: The Peshtigo Hydroelectric Project

Inspection date: August 6, 2020

Colony ID #	Colony Size	General Plant Vigor			Total Plant Vigor	Notes
		Plant Height	Plant Flowering	Beetle Feeding		
	S 0-5 M 6-50 L >50	4 = >4ft 3 = 2-4ft 2 = 1-2ft 1 = <1ft	4 = 100% of plants 3 = 51-99% of plants 2 = 26-50% of plants 1 = <25% of plants	5 = 0% feeding 4 = 1 - 25% feeding 3 = 26-50% feeding 2 = 51-75% feeding 1 = >76% feeding	10-12 = good 7-9 = fair 4-6 = poor 0-3 = very poor	
31		No Longer Able To Identify				
32		No Longer Able To Identify				
33	S 0-5	3	3	4	10	
34		No Longer Able To Identify				
35	S 0-5	2	4	5	11	
36	S 0-5	4	4	5	13	
37		No Longer Able To Identify				
38		No Longer Able To Identify				
39	S 0-5	3	3	5	11	
40	S 0-5	3	4	5	12	
41		No Longer Able To Identify				
42	M 6-50	3	2	3	8	
43	S 0-5	3	4	4	11	Pick all plants.
44		No Longer Able To Identify				
45		No Longer Able To Identify				

Purple Loosestrife Survey Form

Hydroelectric project: The Peshtigo Hydroelectric Project

Inspection date: August 6, 2020

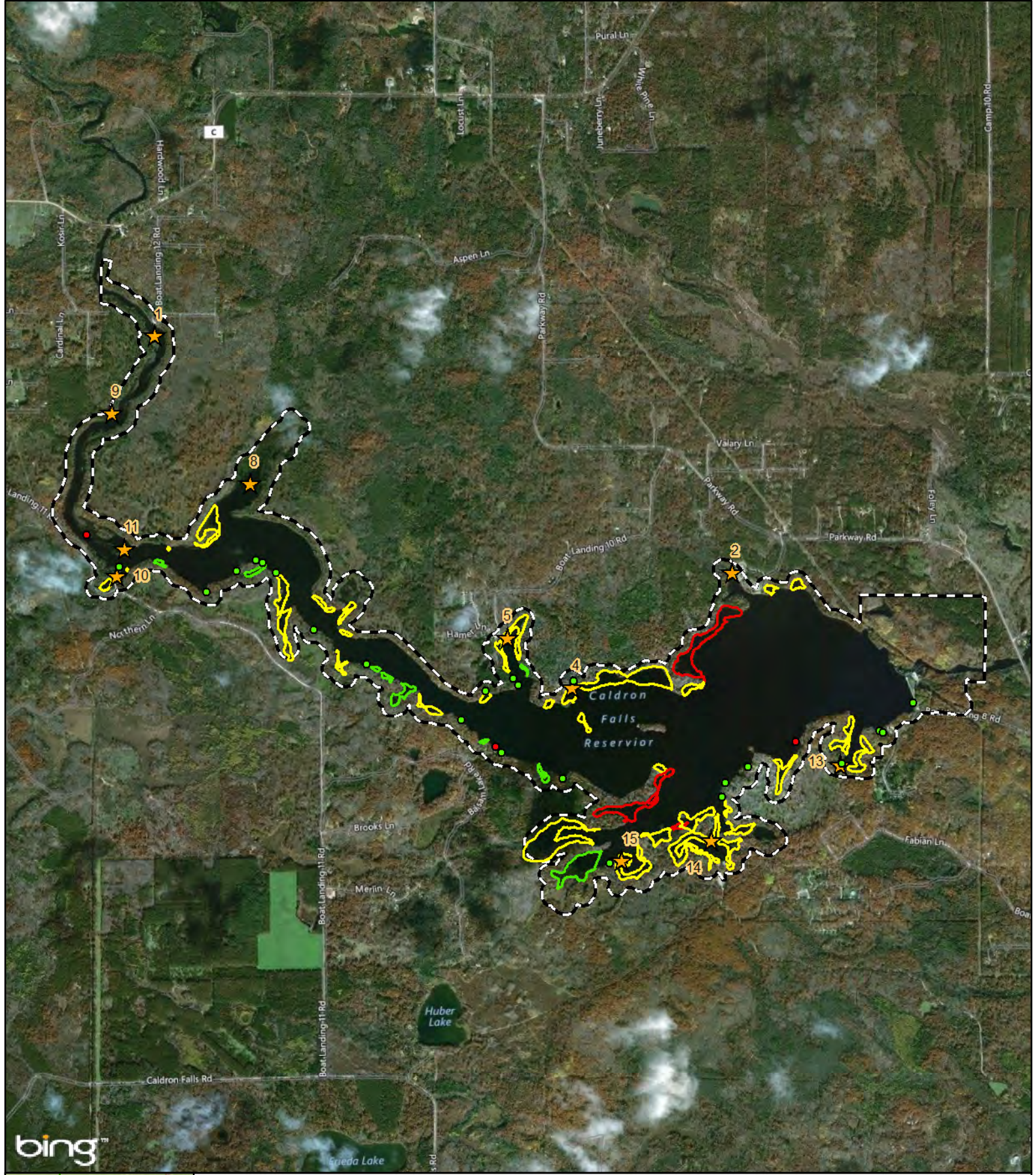
Colony ID #	Colony Size S 0-5 M 6-50 L >50	General Plant Vigor			Total Plant Vigor 10-12 = good 7-9 = fair 4-6 = poor 0-3 = very poor	Notes
		Plant Height 4 = >4ft 3 = 2-4ft 2 = 1-2ft 1 = <1ft	Plant Flowering 4 = 100% of plants 3 = 51-99% of plants 2 = 26-50% of plants 1 = <25% of plants	Beetle Feeding 5 = 0% feeding 4 = 1 - 25% feeding 3 = 26-50% feeding 2 = 51-75% feeding 1 = >76% feeding		
46	S 0-5	2	3	5	10	New. Picked all plants.
47	S 0-5	4	4	5	13	New.
48	S 0-5	4	4	5	13	New.
49	S 0-5	3	4	5	12	New.
50	S 0-5	2	4	4	10	New. Picked all plants.
51	S 0-5	3	3	5	11	New.
52	S 0-5	2	4	5	11	New.
53	S 0-5	3	4	5	12	New.
54	S 0-5	3	4	5	12	New.
55	M 6-50	3	4	3	10	New.
56	S 0-5	3	4	5	12	New.
57	S 0-5	4	4	5	13	New.
58	M 6-50	3	4	4	11	New. Pick a few.
59	S 0-5	3	4	4	11	New. Picked all plants.
60	M 6-50	3	4	5	12	New.

Peshtigo River Hydroelectric Projects 2011 - 2020 Purple Loosestrife Survey Summary

Year	Total Number of Colonies	Number of Small Colonies (0-5 Plants)	Number of Medium Colonies (6-50 Plants)	Number of Large Colonies (51+ plants)	Number of Colonies With Beetle Feeding	Percentage of Total Colonies With Beetle Feeding
2011	14	5	2	7	12	86%
2014	2	2	0	0	Unknown	Unknown
2017	19	13	5	1	15	79%
2020	27	19	9	0	10	37%

APPENDIX B

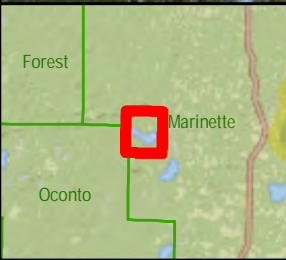
2020 EURASIAN WATERMILFOIL SURVEY RESULTS



bing™

**WPS Caldron Falls
Hydroelectric Project
Eurasian Water Milfoil
Survey 2020**

- Project Boundary
- Scarce
- Common
- Abundant
- Scarce; Sparse
- Common
- Abundant



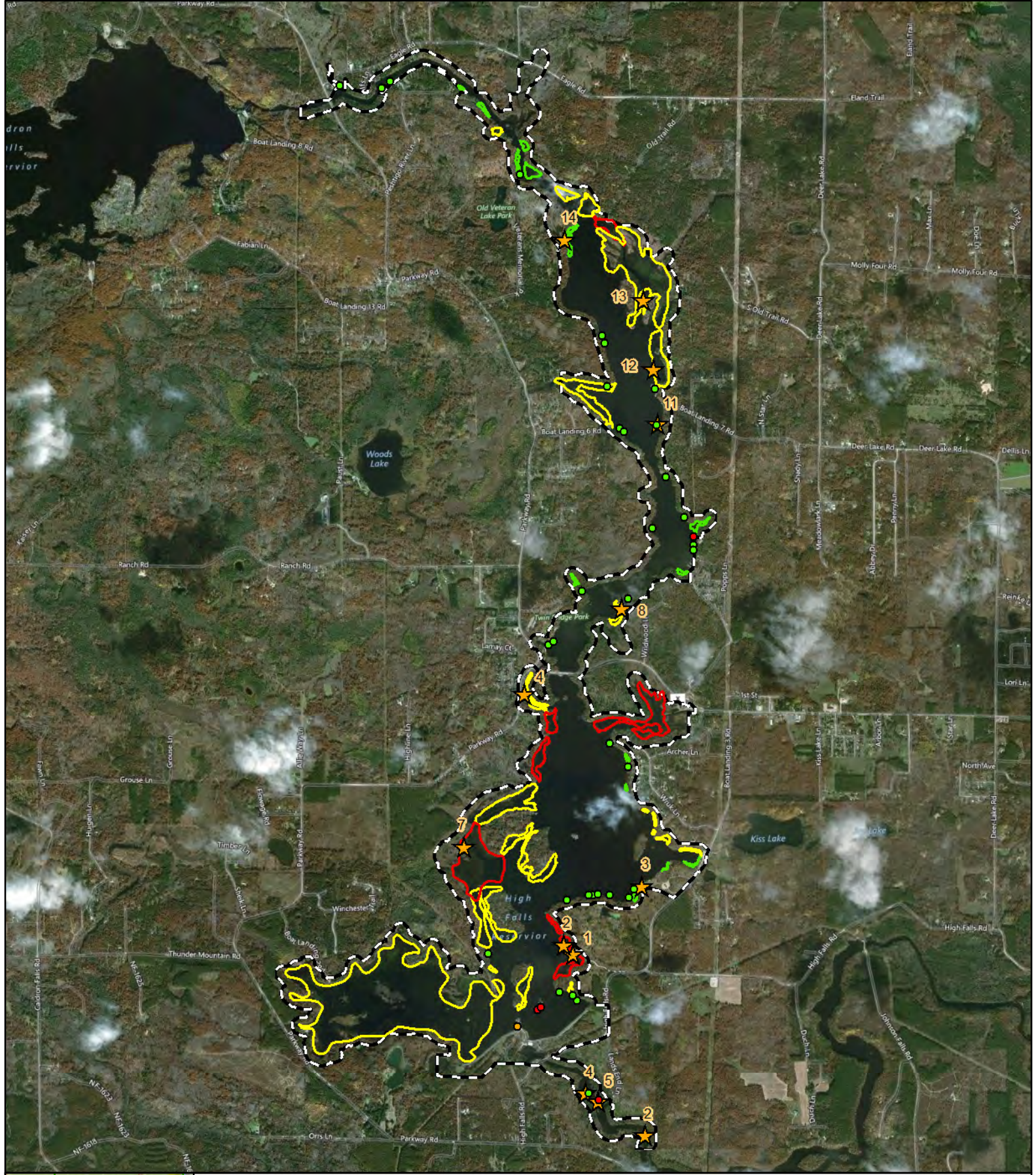
9/23/2020

2020 Eurasian Watermilfoil Surveys

Caldron Falls Hydroelectric Project

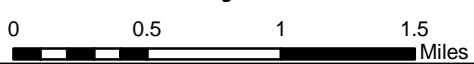
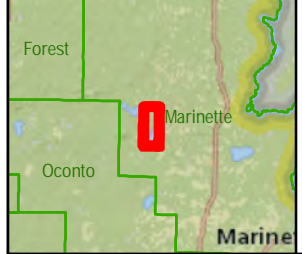
Transect #	0 - 0.5 M	0.5 - 1.5 M	1.5 - 3.0 M	> 3.0 M	Origin
1A	0	0	N/A	N/A	45 22.836
1B	0	0	0	N/A	88 18.040
1C	0	0	0	N/A	
2A	0	N/A	N/A	N/A	45 21.843
2B	0	0	N/A	N/A	88 14.843
2C	0	0	N/A	N/A	
3A					
3B					
3C					
4A	0	N/A	N/A	N/A	45 21.405
4B	0	0	N/A	N/A	88 15.751
4C	0	0	0	N/A	
5A	2	1	2	N/A	45 21.611
5B	0	0	0	N/A	88 16.107
5C	2	3	2	N/A	
6A					
6B					
6C					
7A					
7B					
7C					
8A	3	2	2	2	45 22.240
8B	1	1	1	1	88 17.520
8C	1	2	1	1	
9A	0	N/A	N/A	N/A	45 22.524
9B	0	0	N/A	N/A	88 18.289
9C	0	0	0	N/A	
10A	0	0	N/A	N/A	45 21.882
10B	0	0	0	N/A	88 18.284
10C	0	0	0	N/A	
11A	0	0	0	0	45 21.993
11B	0	0	0	0	88 18.235
11C	0	0	0	0	
12A					
12B					
12C					
13A	0	0	0	N/A	45 21.079
13B	0	0	N/A	N/A	88 14.255
13C	1	0	0	N/A	
14A	0	0	0	N/A	45 20.789
14B	3	4	3	N/A	88 14.992
14C	0	0	0	N/A	
15A	1	1	0	N/A	45 20.726
15B	1	1	1	N/A	88 15.494
15C	0	0	1	N/A	

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



**WPS High Falls
Hydroelectric Project
Eurasian Water Milfoil
Survey 2020**

- Project Boundary
- Scarce
- Common
- Medium
- Abundant
- Scarce; Sparse
- Common
- Abundant

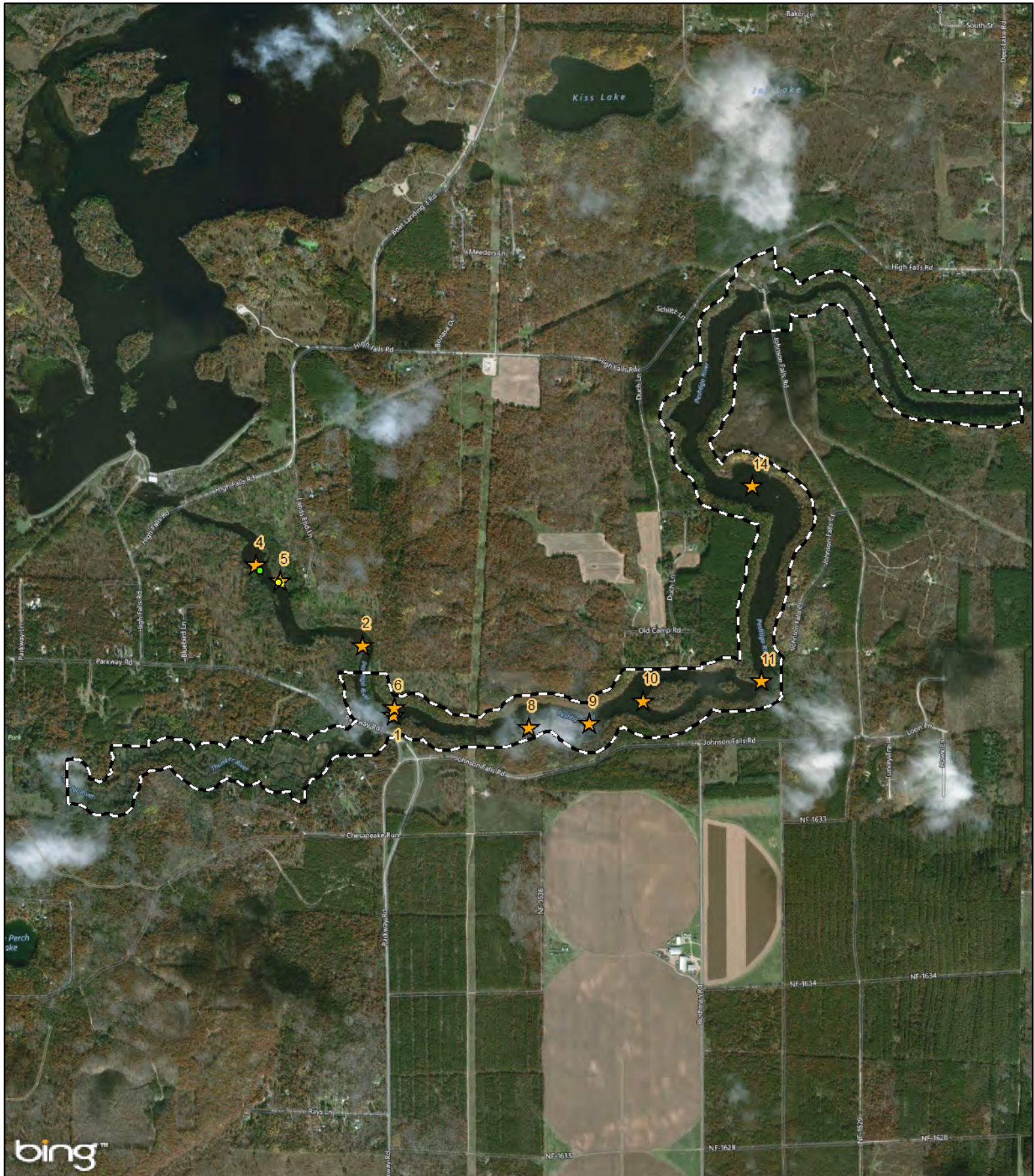


2020 Eurasian Watermilfoil Surveys






High Falls Hydroelectric Project

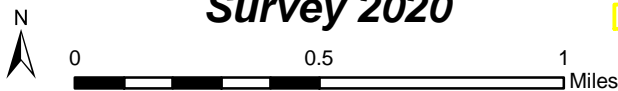
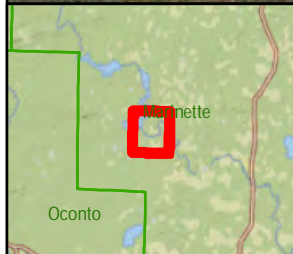
Transect #	0 - 0.5 M	0.5 - 1.5 M	1.5 - 3.0 M	> 3.0 M	Origin
1A	3	3	0	0	45 17.211
1B	0	1	0	0	88 11.662
1C	1	1	0	0	
2A	4	3	3	0	45 17.259
2B	4	4	4	0	88 11.725
2C	4	4	2	1	
3A	0	0	N/A	N/A	45 17.542
3B	0	0	N/A	N/A	88 11.164
3C	0	0	N/A	N/A	
4A	0	0	0	N/A	45 18.514
4B	0	1	0	N/A	88 11.949
4C	0	1	0	N/A	
5A					
5B					
5C					
6A					
6B					
6C					
7A	0	1	N/A	N/A	45 17.763
7B	0	0	N/A	N/A	88 12.407
7C	0	1	N/A	N/A	
8A	0	0	N/A	N/A	45 18.924
8B	0	0	0	0	88 11.263
8C	0	0	0	0	
9A					
9B					
9C					
10A					
10B					
10C					
11A	0	0	0	N/A	45 19.833
11B	0	0	0	N/A	88 10.983
11C	0	0	0	N/A	
12A	0	1	N/A	N/A	45 20.104
12B	0	0	N/A	N/A	88 11.003
12C	0	0	0	N/A	
13A	0	1	1	N/A	45 20.450
13B	2	2	0	N/A	88 11.065
13C	2	1	0	N/A	
14A	0	0	N/A	N/A	45 20.762
14B	0	0	N/A	N/A	88 11.606
14C	0	0	N/A	N/A	
15A					
15B					
15C					

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



WPS Johnson Falls Hydroelectric Project Eurasian Watermilfoil Survey 2020

-  Project Boundary
-  Transect Point
-  Scarce (1-Present)
-  Common (3-Equal Presence Compare to Other Species)
-  Common (3-Equal Presence Compared to Other Species)



8/31/2020

2020 Eurasian Watermilfoil Surveys

Johnson Falls Hydroelectric Project

Transect #	0 - 0.5 M	0.5 - 1.5 M	1.5 - 3.0 M	> 3.0 M	Origin
1A	0	N/A	N/A	N/A	45 16.103
1B	0	0	N/A	N/A	88 11.152
1C	0	0	N/A	N/A	
2A	0	N/A	N/A	N/A	45 16.295
2B	0	0	N/A	N/A	88 11.205
2C	0	0	N/A	N/A	
3A					
3B					
3C					
4A	0	N/A	N/A	N/A	45 16.535
4B	0	N/A	N/A	N/A	88 11.584
4C	0	0	N/A	N/A	
5A	0	0	N/A	N/A	45 16.498
5B	0	0	N/A	N/A	88 11.498
5C	0	0	N/A	N/A	
6A	0	N/A	N/A	N/A	45 16.161
6B	0	N/A	N/A	N/A	88 11.074
6C	0	0	1	N/A	
7A					
7B					
7C					
8A	0	0	N/A	N/A	45 16.088
8B	0	0	N/A	N/A	88 10.525
8C	0	0	0	N/A	
9A	0	0	N/A	N/A	45 16.091
9B	0	0	0	N/A	88 10.317
9C	0	0	0	0	
10A	0	N/A	N/A	N/A	45 16.131
10B	0	0	N/A	N/A	88 10.141
10C	0	0	0	N/A	
11A	0	N/A	N/A	N/A	45 16.181
11B	0	0	N/A	N/A	88 09.644
11C	0	0	0	0	
12A					
12B					
12C					
13A					
13B					
13C					
14A	0	0	0	N/A	45 16.717
14B	0	0	0	N/A	88 09.681
14C	0	0	0	N/A	
15A					
15B					
15C					

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



bing™



**WPS Sandstone Rapids
Hydroelectric Project
Eurasian Water Milfoil
Survey 2020**

- Project Boundary
- Transect Point
- Scarce
- Scarce; Sparse



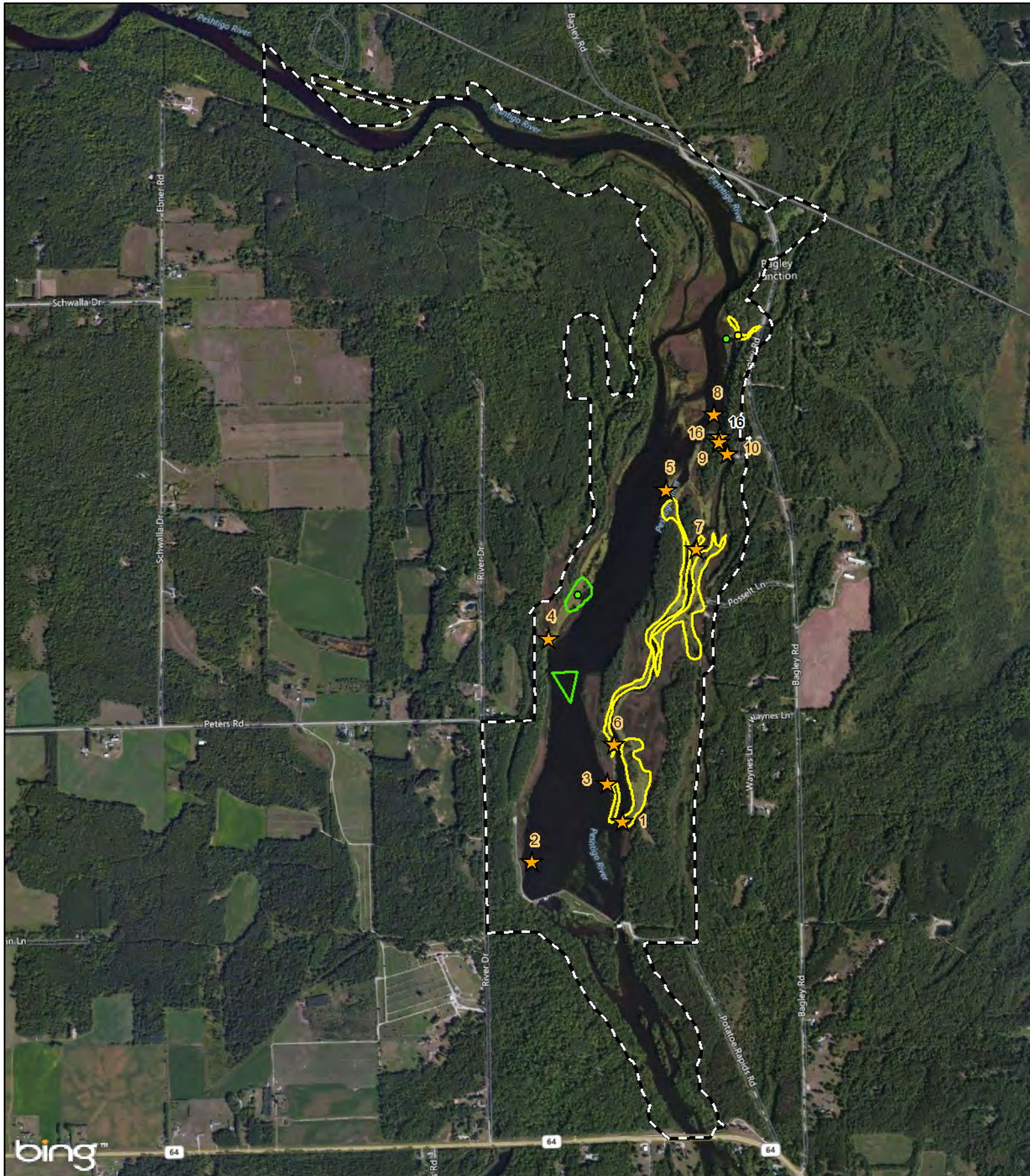
9/23/2020

2020 Eurasian Watermilfoil Surveys

Sandstone Rapids Hydroelectric Project

Transect #	0 - 0.5 M	0.5 - 1.5 M	1.5 - 3.0 M	> 3.0 M	Origin
1A	0	N/A	N/A	N/A	45 13.660
1B	0	N/A	N/A	N/A	88 04.711
1C	0	0	0	N/A	
2A	0	0	0	N/A	45 13.695
2B	0	0	0	N/A	88 04.898
2C	0	0	0	N/A	
3A					
3B					
3C					
4A					
4B					
4C					
5A	1	0	1	N/A	45 13.680
5B	0	0	0	N/A	88 04.595
5C	0	N/A	0	N/A	
6A	0	0	N/A	N/A	45 13.807
6B	0	0	N/A	N/A	88 04.223
6C	0	0	0	N/A	
7A					
7B					
7C					
8A	0	0	N/A	N/A	45 13.924
8B	0	0	N/A	N/A	88 04.014
8C	0	0	0	N/A	
9A	3	2	N/A	N/A	45 13.818
9B	0	0	N/A	N/A	88 04.415
9C	3	2	0	N/A	
10A					
10B					
10C					
11A	0	0	N/A	N/A	45 13.403
11B	0	0	0	N/A	88 05.430
11C	0	0	0	N/A	
12A	0	0	N/A	N/A	45 13.355
12B	0	0	N/A	N/A	88 05.592
12C	0	0	N/A	N/A	
13A	0	0	N/A	N/A	45 13.289
13B	0	0	N/A	N/A	88 05.592
13C	0	0	N/A	N/A	
14A					
14B					
14C					
15A	0	0	N/A	N/A	45 13.612
15B	0	0	N/A	N/A	88 05.141
15C	0	0	N/A	N/A	

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



bing™



**WPS Potato Rapids
Hydroelectric Project
Eurasian Water Milfoil
Survey 2020**



0 0.5 Miles

- Project Boundary
- Transect Point
- Small; Scarce
- Sparse
- Sparse
- Common

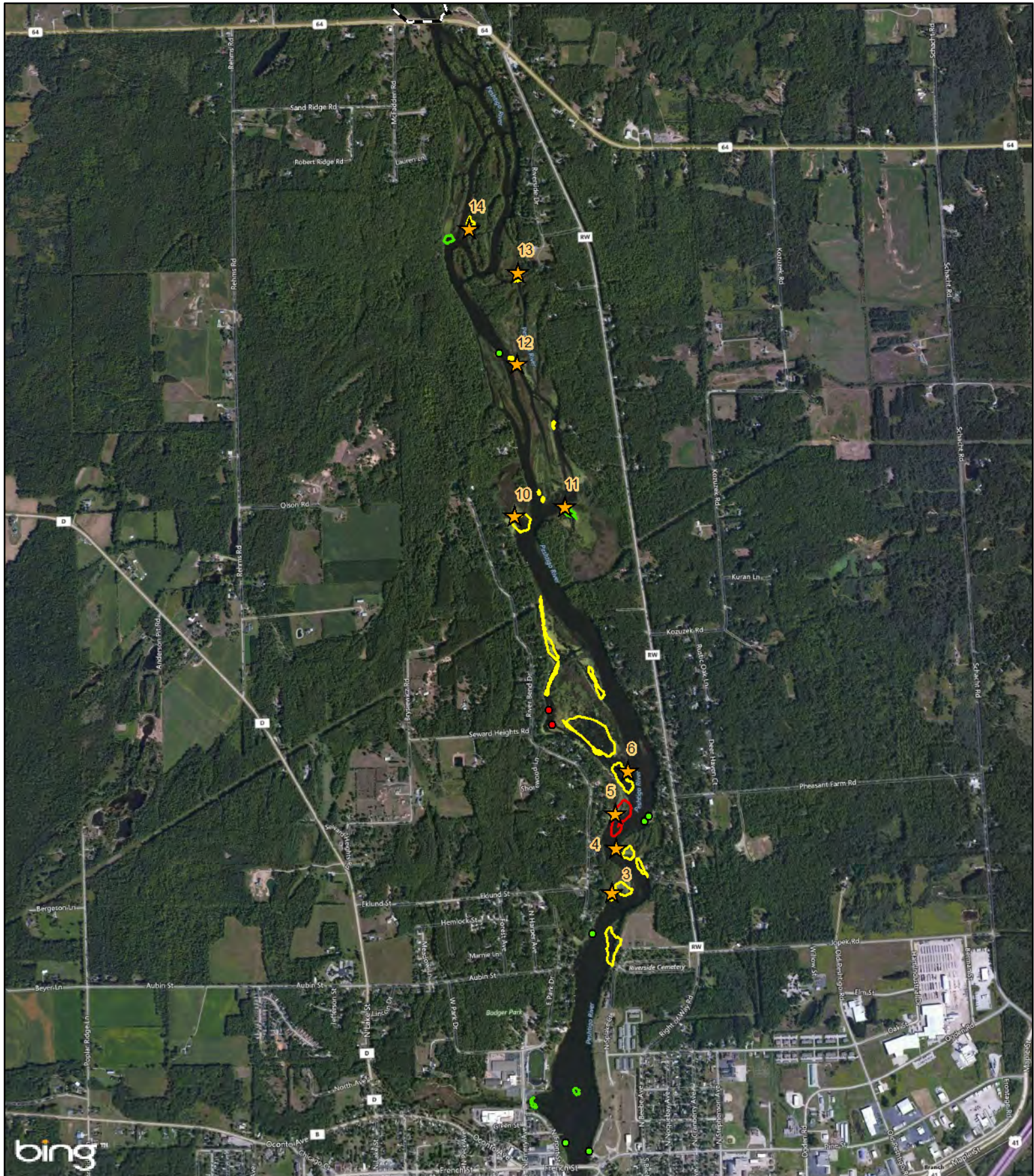
9/23/2020

2020 Eurasian Watermilfoil Surveys

Potato Rapids Hydroelectric Project

Transect #	0 - 0.5 M	0.5 - 1.5 M	1.5 - 3.0 M	> 3.0 M	Origin
1A	0	0	N/A	N/A	45 07.054
1B	0	0	N/A	N/A	87 45.478
1C	0	0	0	N/A	
2A	0	0	N/A	N/A	45 06.959
2B	0	0	N/A	N/A	87 45.639
2C	0	0	0	0	
3A	2	1	N/A	N/A	45 07.121
3B	0	0	0	N/A	87 45.546
3C	0	0	0	N/A	
4A	0	0	N/A	N/A	45 07.458
4B	0	1	N/A	N/A	87 45.663
4C	0	0	N/A	N/A	
5A	0	0	N/A	N/A	45 07.676
5B	0	1	N/A	N/A	87 45.348
5C	1	1	1	N/A	
6A	0	0	N/A	N/A	45 07.209
6B	0	0	0	0	87 45.535
6C	0	1	1	0	
7A	0	0	N/A	N/A	45 07.602
7B	0	0	N/A	N/A	87 45.209
7C	0	0	0	N/A	
8A	0	0	N/A	N/A	45 07.865
8B	0	0	0	N/A	87 45.176
8C	0	0	0	N/A	
9A	0	0	N/A	N/A	45 07.786
9B	0	0	0	N/A	87 45.171
9C	0	0	0	N/A	
10A	0	0	N/A	N/A	45 07.769
10B	0	0	0	N/A	87 45.161
10C	0	0	0	0	
11A					
11B					
11C					
12A					
12B					
12C					
13A					
13B					
13C					
14A					
14B					
14C					
15A					
15B					
15C					

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



**WPS Peshtigo
Hydroelectric Project
Eurasian Water Milfoil
Survey 2020**

- Project Boundary
- Scarce (1-Present)
- Common (3-Equal Presence Compared to Other Species)
- Abundant (4-Dominant Species Present)
- Small; Scarce
- Common



0 1 Miles

9/23/2020

2020 Eurasian Watermilfoil Surveys

Peshtigo River Hydroelectric Project

Transect #	0 - 0.5 M	0.5 - 1.5 M	1.5 - 3.0 M	> 3.0 M	Origin
1A	0	0	N/A	N/A	45 03.332
1B	0	0	N/A	N/A	87 44.925
1C	0	0	N/A	N/A	
2A					
2B					
2C					
3A	0	0	N/A	N/A	45 04.010
3B	0	0	N/A	N/A	87 44.708
3C	0	0	N/A	N/A	
4A	0	N/A	N/A	N/A	45 04.129
4B	0	0	N/A	N/A	87 44.687
4C	0	0	0	0	
5A	0	0	N/A	N/A	45 04.223
5B	0	0	N/A	N/A	87 44.687
5C	0	1	N/A	N/A	
6A	0	1	N/A	N/A	45 04.338
6B	2	1	N/A	N/A	87 44.634
6C	0	1	1	N/A	
7A					
7B					
7C					
8A					
8B					
8C					
9A					
9B					
9C					
10A	0	0	N/A	N/A	45 05.038
10B	0	0	N/A	N/A	87 45.039
10C	0	0	N/A	N/A	
11A	0	0	N/A	N/A	45 05.060
11B	2	0	N/A	N/A	87 44.846
11C	1	0	0	N/A	
12A	0	N/A	N/A	N/A	45 05.450
12B	0	0	N/A	N/A	87 45.015
12C	0	0	N/A	N/A	
13A	2	2	N/A	N/A	45 05.699
13B	3	2	N/A	N/A	87 45.002
13C	0	0	N/A	N/A	
14A	0	0	N/A	N/A	45 05.822
14B	0	0	N/A	N/A	87 45.184
14C	0	0	N/A	N/A	
15A					
15B					
15C					

Abundance Scale From Rake Sample: 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

2018 ZEBRA MUSSEL MONTHLY SUBSTRATE SAMPLING EXAMPLE

ZEBRA MUSSEL INSPECTION RESULTS
PESHTIGO RIVER HYDROELECTRIC PROJECTS

HYDRO NAME

Caldron Falls

Johnson Falls

High Falls

Sandstone Rapids

INSPECTION TYPE: MONTHLY INSPECTION INSPECTION DURING DRAWDOWN
DATE: 4-25-18
COMMENTS/RESULTS: '0' Zebra Mussel's

INSPECTION TYPE: MONTHLY INSPECTION INSPECTION DURING DRAWDOWN
DATE: 5-24-18
COMMENTS/RESULTS: No Zebras

INSPECTION TYPE: MONTHLY INSPECTION INSPECTION DURING DRAWDOWN
DATE: 6-29-18
COMMENTS/RESULTS: '0'

INSPECTION TYPE: MONTHLY INSPECTION INSPECTION DURING DRAWDOWN
DATE: 7-31-18
COMMENTS/RESULTS: No Zebras

INSPECTION TYPE: MONTHLY INSPECTION INSPECTION DURING DRAWDOWN
DATE: 8-23-18
COMMENTS/RESULTS: '0'

INSPECTION TYPE: MONTHLY INSPECTION INSPECTION DURING DRAWDOWN
DATE: 9-26-18
COMMENTS/RESULTS: No Zebras

APPENDIX D

2018 HIGH FALLS HYDROELECTRIC PROJECT ZEBRA MUSSEL IDENTIFICATION



Wisconsin Public Service Corporation

700 North Adams Street
P.O. Box 19001
Green Bay, WI 54307-9001

www.wisconsinpublicservice.com

June 6, 2018

Ms. Maggie Kailhofer
Wisconsin Department of Natural Resources
N10008 Paust Lane
Crivitz, WI 54114

Ms. Kailhofer:

Invasive Species Monitoring Plan

<u>Hydro</u>	<u>FERC Project No.</u>	<u>NATDAM No.</u>	<u>License Article</u>
Caldron Falls	2525	WI00759	412
High Falls	2595	WI00754	409
Johnson Falls	2522	WI00758	410
Sandstone Rapids	2546	WI00760	411
Peshtigo	2581	WI00756	408
Potato Rapids	2560	WI00757	409

In accordance with the Federal Energy Regulatory Commission (FERC) Order Modifying and Approving the Updated Comprehensive Land and Wildlife Management Plan (CLWMP)- Invasive Species Monitoring Plan for the Peshtigo Hydroelectric Project, Potato Rapids Hydroelectric Project, Caldron Falls Hydroelectric, High Falls Hydroelectric Project, Johnson Falls Hydroelectric Project, and Sandstone Rapids issued on July 21, 2014, Wisconsin Public Service (WPS) is to monitor for the zebra mussel (*Dreissena polymorpha*) until the presence of the zebra mussel is confirmed on the hydros.

A zebra mussel was found on May 26, 2018 attached to another mussel species in the reservoir; see Attachment A for location and Attachment B for pictures. Per the CLWMP, zebra mussel monitoring at the High Falls project will be discontinued.

Should you have any questions or require additional information, please do not hesitate to contact me at 920-433-5558 or Jessica.Roloff@WECEnergyGroup.com.

Sincerely,

Jessica Roloff
Environmental Consultant

Enclosures



Wisconsin Public Service Corporation

700 North Adams Street
P.O. Box 19001
Green Bay, WI 54307-9001

www.wisconsinpublicservice.com

June 6, 2018

Ms. Cheryl Laatsch
Wisconsin Department of Natural Resources
PO Box 7921
Madison, WI 53707-7921

Ms. Laatsch:

Invasive Species Monitoring Plan

<u>Hydro</u>	<u>FERC Project No.</u>	<u>NATDAM No.</u>	<u>License Article</u>
Caldron Falls	2525	WI00759	412
High Falls	2595	WI00754	409
Johnson Falls	2522	WI00758	410
Sandstone Rapids	2546	WI00760	411
Peshtigo	2581	WI00756	408
Potato Rapids	2560	WI00757	409

In accordance with the Federal Energy Regulatory Commission (FERC) Order Modifying and Approving the Updated Comprehensive Land and Wildlife Management Plan (CLWMP)- Invasive Species Monitoring Plan for the Peshtigo Hydroelectric Project, Potato Rapids Hydroelectric Project, Caldron Falls Hydroelectric, High Falls Hydroelectric Project, Johnson Falls Hydroelectric Project, and Sandstone Rapids issued on July 21, 2014, Wisconsin Public Service (WPS) is to monitor for the zebra mussel (*Dreissena polymorpha*) until the presence of the zebra mussel is confirmed on the hydros.

A zebra mussel was found on May 26, 2018 attached to another mussel species in the reservoir; see Attachment A for location and Attachment B for pictures. Per the CLWMP, zebra mussel monitoring at the High Falls project will be discontinued.

Should you have any questions or require additional information, please do not hesitate to contact me at 920-433-5558 or Jessica.Roloff@WECEnergyGroup.com.

Sincerely,

Jessica Roloff
Environmental Consultant

Enclosures



Wisconsin Public Service Corporation

700 North Adams Street
P.O. Box 19001
Green Bay, WI 54307-9001

www.wisconsinpublicservice.com

June 6, 2018

Mr. Titus S. Seilheimer
UW-Manitowoc
705 Viebahn St.
Manitowoc, WI 54220

Mr. Seilheimer:

Invasive Species Monitoring Plan

<u>Hydro</u>	<u>FERC Project No.</u>	<u>NATDAM No.</u>	<u>License Article</u>
Caldron Falls	2525	WI00759	412
High Falls	2595	WI00754	409
Johnson Falls	2522	WI00758	410
Sandstone Rapids	2546	WI00760	411
Peshtigo	2581	WI00756	408
Potato Rapids	2560	WI00757	409

In accordance with the Federal Energy Regulatory Commission (FERC) Order Modifying and Approving the Updated Comprehensive Land and Wildlife Management Plan (CLWMP)- Invasive Species Monitoring Plan for the Peshtigo Hydroelectric Project, Potato Rapids Hydroelectric Project, Caldron Falls Hydroelectric, High Falls Hydroelectric Project, Johnson Falls Hydroelectric Project, and Sandstone Rapids issued on July 21, 2014, Wisconsin Public Service (WPS) is to monitor for the zebra mussel (*Dreissena polymorpha*) until the presence of the zebra mussel is confirmed on the hydros.

A zebra mussel was found on May 26, 2018 attached to another mussel species in the reservoir; see Attachment A for location and Attachment B for pictures. Per the CLWMP, zebra mussel monitoring at the High Falls project will be discontinued.

Should you have any questions or require additional information, please do not hesitate to contact me at 920-433-5558 or Jessica.Roloff@WECEnergyGroup.com.

Sincerely,

Jessica Roloff
Environmental Consultant

Enclosures



Wisconsin Public Service Corporation

700 North Adams Street
P.O. Box 19001
Green Bay, WI 54307-9001

www.wisconsinpublicservice.com

June 6, 2018

Mr. Nick Utrup
USFWS Ecological Services Field Office
4101 American Boulevard, East
Bloomington, MN 55425

Mr. Utrup:

Invasive Species Monitoring Plan

<u>Hydro</u>	<u>FERC Project No.</u>	<u>NATDAM No.</u>	<u>License Article</u>
Caldron Falls	2525	WI00759	412
High Falls	2595	WI00754	409
Johnson Falls	2522	WI00758	410
Sandstone Rapids	2546	WI00760	411
Peshtigo	2581	WI00756	408
Potato Rapids	2560	WI00757	409

In accordance with the Federal Energy Regulatory Commission (FERC) Order Modifying and Approving the Updated Comprehensive Land and Wildlife Management Plan (CLWMP)- Invasive Species Monitoring Plan for the Peshtigo Hydroelectric Project, Potato Rapids Hydroelectric Project, Caldron Falls Hydroelectric, High Falls Hydroelectric Project, Johnson Falls Hydroelectric Project, and Sandstone Rapids issued on July 21, 2014, Wisconsin Public Service (WPS) is to monitor for the zebra mussel (*Dreissena polymorpha*) until the presence of the zebra mussel is confirmed on the hydros.

A zebra mussel was found on May 26, 2018 attached to another mussel species in the reservoir; see Attachment A for location and Attachment B for pictures. Per the CLWMP, zebra mussel monitoring at the High Falls project will be discontinued.

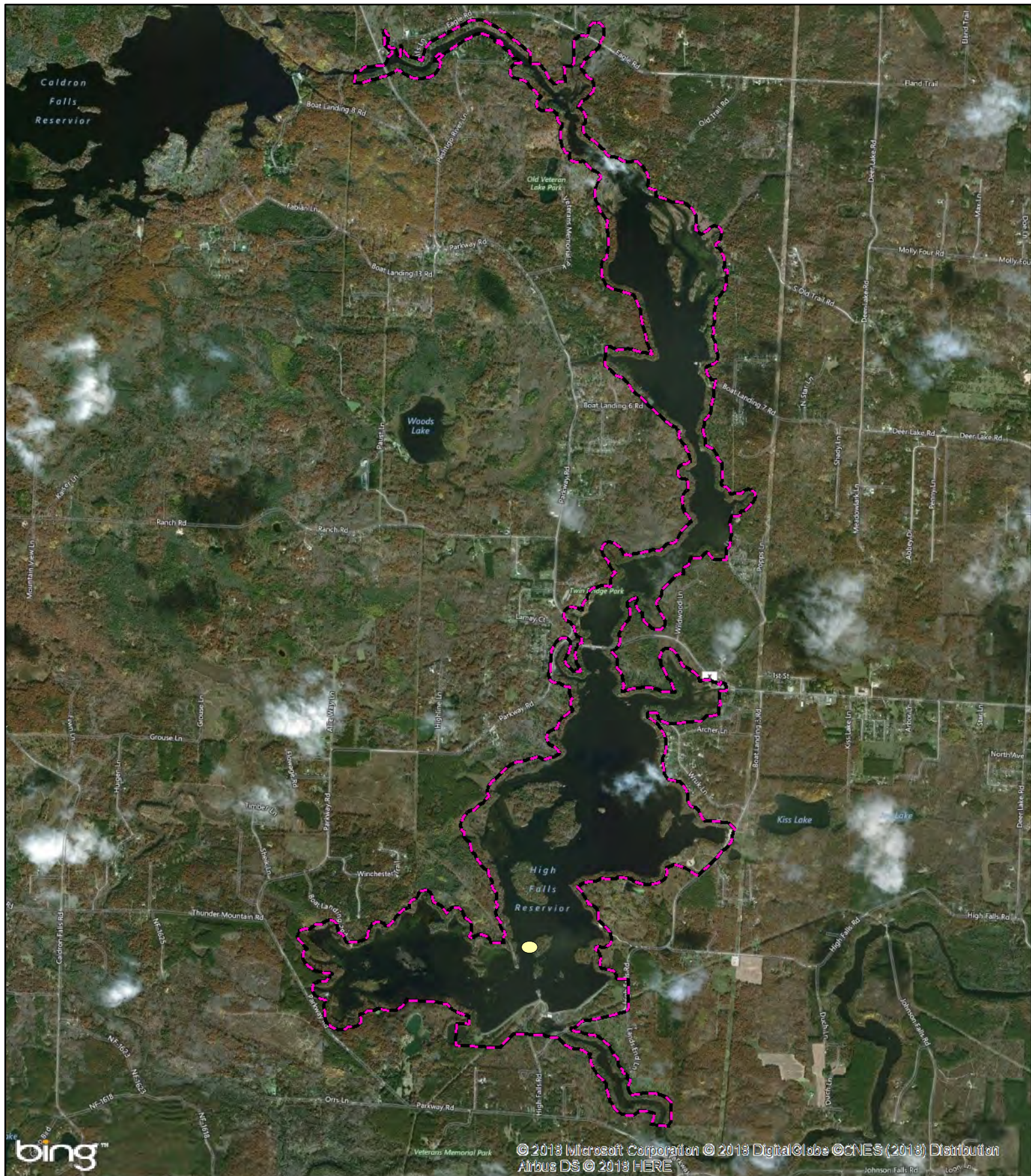
Should you have any questions or require additional information, please do not hesitate to contact me at 920-433-5558 or Jessica.Roloff@WECEnergyGroup.com.

Sincerely,



Jessica Roloff
Environmental Consultant

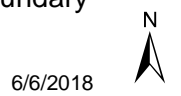
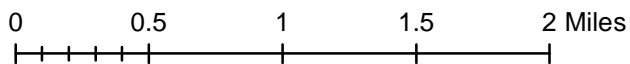
Enclosures

ATTACHMENT A



High Falls Hydroelectric Project Zebra Mussel Monitoring

-  Zebra Mussel Location
-  Project Boundary



6/6/2018

ATTACHMENT B

