



Wisconsin Public Service Corporation  
700 North Adams Street  
P.O. Box 19001  
Green Bay, WI 54307-9001  
www.wisconsinpublicservice.com

December 18, 2018

Ms. Kimberly D. Bose, Secretary  
Federal Energy Regulatory Commission  
888 First Street NE  
Washington DC 20425

Dear Ms. Bose:

**SUBJECT: Purple Loosestrife Monitoring Plan - Purple Loosestrife Monitoring Report**

<u>Hydro</u>	<u>FERC Project No.</u>	<u>NATDAM No.</u>	<u>License Article</u>
Wausau	1999	WI00752	408

In accordance with the Federal Energy Regulatory Commission (FERC) Order Extending Implementation of Purple Loosestrife Monitoring Plan for the Wausau Hydroelectric Project, issued March 16, 2018, Wisconsin Public Service (WPS) is required to file annual purple loosestrife (PL) monitoring results to FERC by December 31<sup>st</sup> of the year a survey has been completed.

2018 Purple Loosestrife Survey Results

A survey for PL was completed on August 13, 2018. Fifty-nine colonies of PL were identified at the Project. Of the fifty-nine colonies, twenty-five were small or medium colonies that were completely hand pulled and disposed of offsite. Appendix A includes the 2018 PL survey results.

In 2018, WPS released approximately 6,000 *Galerucella species* beetles (beetles) in one location to supplement existing beetle populations. WPS observed beetles feeding on forty-seven of the fifty-nine PL colonies.

A review of the last four years of data shows the number of colonies has ranged between eight and fifty-nine. Currently there are fifty-nine colonies. The percentage of colonies with beetles feeding has ranged from 30% to 80%. The 2018 results show beetles feeding on 80% of the colonies. WPS has been releasing beetles since 2009; with over 30,000 beetles released in this 10-year timeframe. Despite the WPS beetle releasing efforts, beetle populations are still not present in all areas of the reservoir. Appendix B includes a PL population comparison table (2015-2018).

WPS proposes to continue annual surveys, perform manual control of small PL colonies, and to only use biological control methods, as part of an adaptive management program, if annual observations warrant supplementing existing beetle populations. The next PL survey is scheduled for 2019.

A copy of this report was submitted to the Wisconsin Department of Natural Resources (WDNR) and the US Fish and Wildlife Service (FWS) on October 31, 2018. The WDNR and FWS did not provide any comments. Appendix C includes the 2018 documentation of consultation.

Ms. Kimberly D. Bose  
December 18, 2018  
Page 2 of 2

Should you have any questions relative to this material, please do not hesitate to contact Jes Roloff at (920) 433-5558 or [Jessica.Roloff@WECEnergyGroup.com](mailto:Jessica.Roloff@WECEnergyGroup.com).

Sincerely,

A handwritten signature in blue ink that reads "Todd P. Jastremski". The signature is written in a cursive style with a horizontal line above the first name.

Todd P. Jastremski  
Asset Manager Hydro Operations  
We Energies  
800 Industrial Park Drive  
Iron Mountain, MI 49801

JRR/cll

Enc: Appendix A – 2018 Purple Loosestrife Survey Results – 8 Pages  
Appendix B – Purple Loosestrife Population Comparison Table (2015 – 2018) – 2 Pages  
Appendix C – 2018 Documentation of Consultation – 9 Pages

cc: Ms. Cheryl Laatsch, WDNR  
Mr. Nicholas Utrup, USFWS  
Mr. John Zygaj, FERC - CRO

**APPENDIX A**

**2018 PURPLE LOOSESTRIFE SURVEY RESULTS**

## 2018 Purple Loosestrife Survey Form

Hydroelectric project: Wausau Hydroelectric Project

Beetle Release Date: June 26, 2018

Inspection date: August 13, 2018

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	GPS Point
		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	L >50	4	3	4	11		1077 (old point)
2	No Longer Able To Identify						1078 (old point)
3	M 6-50	4	3	4	11		1079 (old point)
4	S 0-5	4	3	4	11		1080 (old point)
5	S 0-5	3	2	2	7		1081 (old point)
6	L >50	4	3	2	9	Population reduced from 2017. Shows significant beetle feeding.	1082 (old point)
7	S 0-5	3	3	4	10		1103 & 1083 (old point)
8	No Longer Able To Identify						1084 (old point)
9	No Longer Able To Identify						1085 (old point)
10	S 0-5	4	3	4	11		1086 (old point)
11	S 0-5	3	3	4	10		1087 (old point)
12	M 6-50	3	3	4	10		935 (old point)
13	S 0-5	3	4	5	12		1089 (old point)
14	S 0-5	4	2	1	7		934 (old point)
15	No Longer Able To Identify						933 (old point)

## 2018 Purple Loosestrife Survey Form

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Inspection date: August 13, 2018

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16		No Longer Able To Identify					1090 (old point)
17	S 0-5	4	3	4	11		1073
18		No Longer Able To Identify					1074 (old point)
19		No Longer Able To Identify					1075 (old point)
20		No Longer Able To Identify					1076 (old point)
21	S 0-5	3	4	5	12		1732
22	S 0-5	3	3	5	11		1731
23	M 6-50	3	2	4	9		1730
24	S 0-5	3	3	5	11		1728
25	S 0-5	4	4	5	13	Pulled all plants.	1936
26	S 0-5	3	3	4	10		1737
27	S 0-5	4	4	5	13		1736
28	S 0-5	2	3	4	9		1738
29	S 0-5	4	4	3	11	Pulled all plants.	1734
30	S 0-5	3	4	4	11	Pulled all plants.	1912
31	M 6-50	4	3	2	9	Pulled 9 of 10 plants.	1913

## 2018 Purple Loosestrife Survey Form

Hydroelectric project: Wausau Hydroelectric Project

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		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			
32	S 0-5	3	3	2	8	Pulled all plants.	1914
33	S 0-5	3	3	4	10	Pulled all plants.	1915
34	S 0-5	3	3	4	10		1916
35	S 0-5	3	2	4	9	Pulled all plants.	1917
36	S 0-5	3	3	5	11	Pulled all plants.	1918
37	S 0-5	4	3	2	9	Pulled all plants.	1919
38	S 0-5	3	3	2	8	Pulled all plants.	1920
39	S 0-5	3	3	3	9	Private Property.	1921
40	S 0-5	3	3	3	9	Private Property.	1922
41	S 0-5	3	3	3	9	Private Property.	1923
42	M 6-50	3	3	2	8	Pulled all plants.	1924
43	S 0-5	4	4	5	13	Pulled all plants.	1925
44	S 0-5	3	3	4	10		1926
45	M 6-50	3	3	2	8		1927
46	S 0-5	4	3	4	11	Pulled all plants.	1928
47	M 6-50	4	3	3	10		1930

## 2018 Purple Loosestrife Survey Form

Hydroelectric project: Wausau Hydroelectric Project

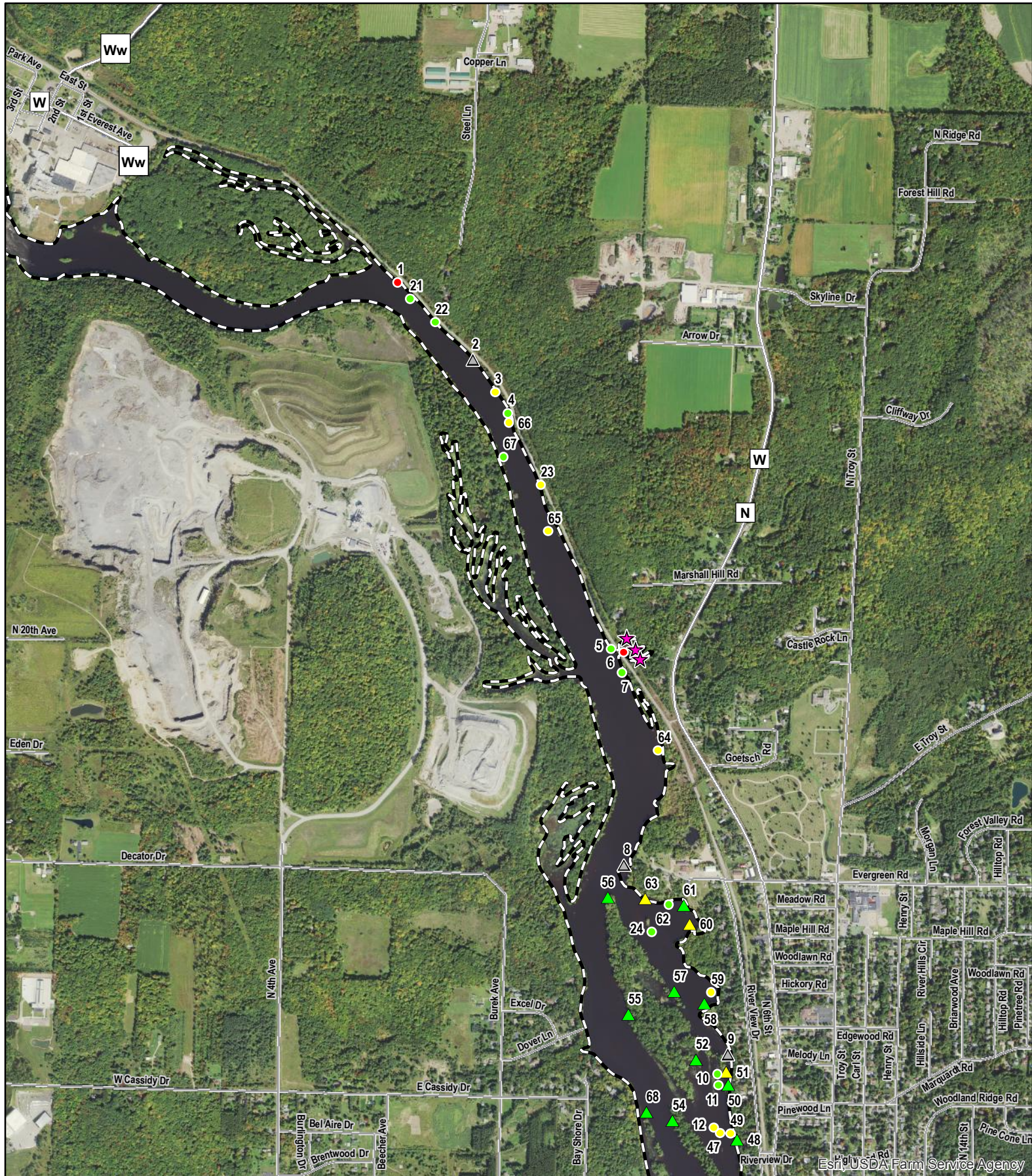
Beetle Release Date: June 26, 2018

Inspection date: August 13, 2018

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	GPS Point
		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			
48	S 0-5	2	2	4	8	Pulled all plants.	1931
49	M 6-50	3	3	4	10	Private Property.	1932
50	S 0-5	3	3	4	10	Pulled all plants.	1933
51	M 6-50	3	3	3	9	Pulled all plants.	1934
52	S 0-5	3	3	3	9	Pulled all plants.	1935
53						Point voided, same as #25	
54	S 0-5	3	3	4	10	Pulled all plants.	1937
55	S 0-5	3	3	5	11	Pulled all plants.	1938
56	S 0-5	3	3	5	11	Pulled all plants.	1939
57	S 0-5	3	3	5	11	Pulled all plants.	1940
58	S 0-5	3	2	5	10	Pulled all plants.	1942
59	M 6-50	3	2	5	10	Private Property.	1943
60	M 6-50	2	2	2	6	Pulled all plants.	1944
61	S 0-5	2	2	2	6	Pulled all plants.	1945
62	S 0-5	3	3	4	10	Private Property.	1946
63	M 6-50	4	3	4	11	Pulled all plants.	1947



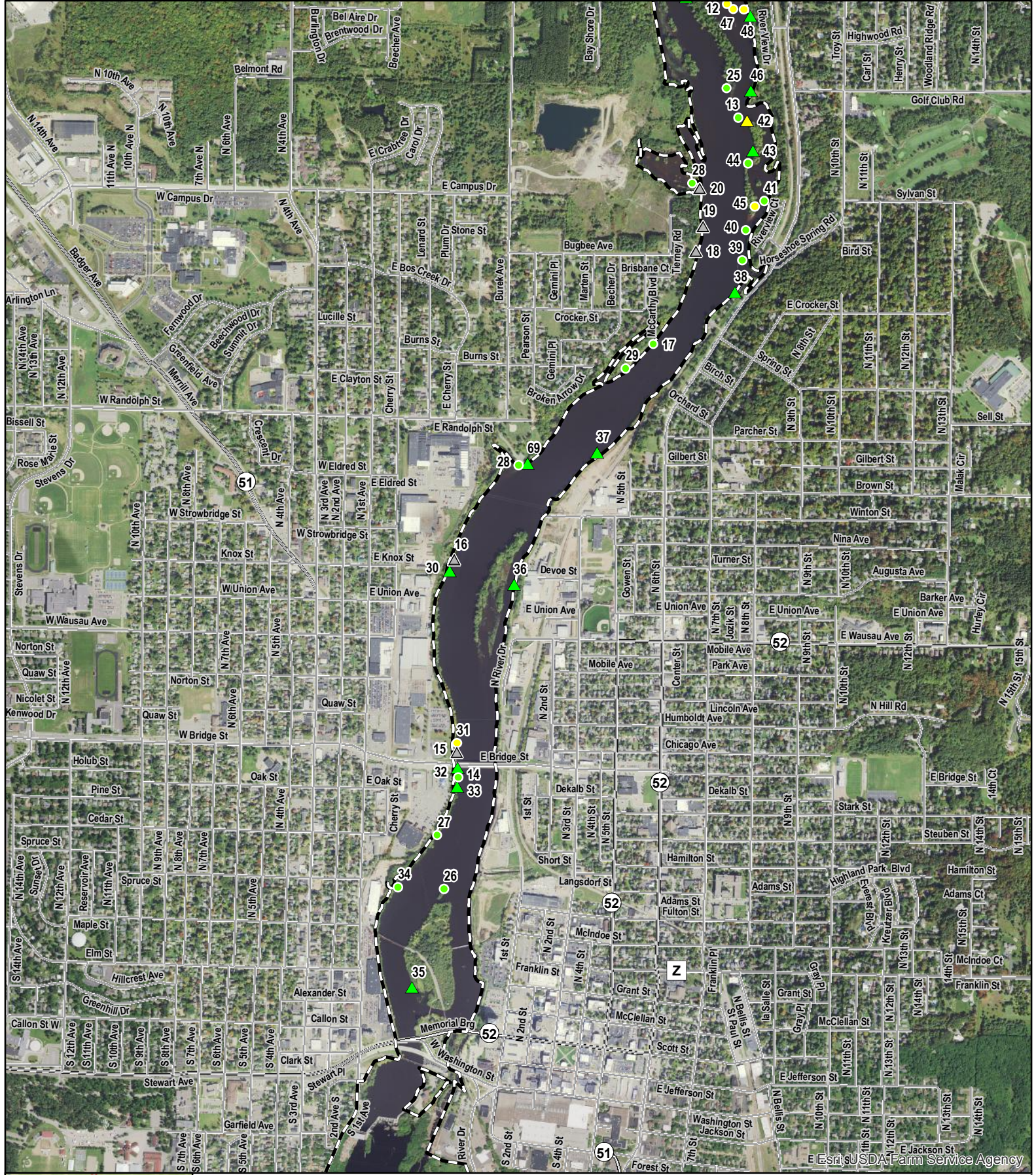




**Wausau**  
**Hydroelectric Project**  
**Purple Loosestrife Survey-2018**  
**Map 1 of 2 - North**

- |                                    |                            |
|------------------------------------|----------------------------|
| Project Boundary                   | Medium                     |
| Beetle Release Site                | Medium; Pulled all Plants  |
| <b>Purple Loosestrife Severity</b> | High                       |
| Low                                | High; Pulled all Plants    |
| Low; Pulled all Plants             | No longer able to identify |

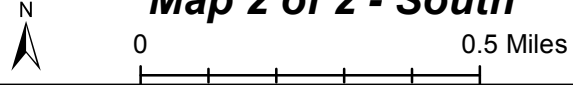




**Wausau**  
**Hydroelectric Project**  
**Purple Loosestrife Survey-2018**  
**Map 2 of 2 - South**

- Project Boundary
- Medium
- Medium; Pulled all Plants
- High
- High; Pulled all Plants
- Low
- Low; Pulled all Plants
- No longer able to identify
- Beetle Release Site

Content may not reflect National Geographic's current



**APPENDIX B**

**2018 PURPLE LOOSESTRIFE POPULATION COMPARISON TABLE**

**(2015-2018)**

**Wausau Hydroelectric Project 2015 - 2018 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	Beetles Released
2015	8	6	2	0	4	50%	4,000
2016	20	15	4	1	6	30%	3,000
2017	22	17	4	1	16	73%	4,000
2018	59	42	15	2	47	80%	6,000

4 Year Average	27.25	20.00	6.25	1.00	18.25	58.10%	
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**APPENDIX C**

**2018 DOCUMENTATION OF CONSULTATION**



**Wisconsin Public Service Corporation**  
 700 North Adams Street  
 P.O. Box 19001  
 Green Bay, WI 54307-9001  
[www.wisconsinpublicservice.com](http://www.wisconsinpublicservice.com)

October 31, 2018

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

Dear Ms. Laatsch:

**SUBJECT: Purple Loosestrife Monitoring Plan - Purple Loosestrife Monitoring Report**

<u>Hydro</u>	<u>FERC Project No.</u>	<u>NATDAM No.</u>	<u>License Article</u>
<b>Wausau</b>	<b>1999</b>	<b>WI00752</b>	<b>408</b>

In accordance with the Federal Energy Regulatory Commission (FERC) Order Extending Implementation of Purple Loosestrife Monitoring Plan for the Wausau Hydroelectric Project, issued March 16, 2018, Wisconsin Public Service Corporation (WPS) is required to file annual purple loosestrife (PL) monitoring results with the Wisconsin Department of Natural Resources (WDNR) and U.S. Fish & Wildlife Service (FWS) by October 31 annually for the next three years.

2018 Purple Loosestrife Survey Results

A survey for PL was completed on August 13, 2018. Fifty-nine colonies of PL were identified at the Project. Of the fifty-nine colonies, twenty-five were small or medium colonies that were completely hand pulled and disposed of offsite. Appendix A includes the 2018 PL survey results.

In 2018, WPS released approximately 6,000 *Galerucella species* beetles (beetles) were released in one location to supplement existing beetle populations. WPS observed beetle feeding on forty-seven of the fifty-nine identified PL colonies.

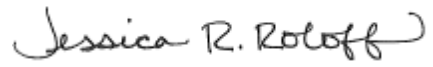
A review of the last four years of data shows that the number of colonies has ranged between eight and fifty-nine. Currently there are fifty-nine colonies. The percentage of colonies with beetle feeding has ranged from 30% to 80% and currently sits at 80%. Beetle populations are still not present in all areas of the reservoir. Appendix B includes a PL population comparison table (2015-2018).

WPS proposes to continue annual surveys; manual control of small PL colonies; and to only use biological control methods as part of an adaptive management program if annual observations warrant supplementing existing beetle populations. The next PL survey is scheduled for 2019.

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](mailto:Jessica.Roloff@WECEnergyGroup.com).

Ms. Cheryl Laatsch  
October 31, 2018  
Page 2 of 2

Sincerely,

A handwritten signature in cursive script that reads "Jessica R. Roloff". The signature is written in black ink and is positioned above the typed name.

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

Enc: Appendix A – 2018 Purple Loosestrife Survey Results  
Appendix B – Purple Loosestrife Population Comparison Table (2015 – 2018)

**IN THE INTEREST OF PAPERWORK REDUCTION, REDUNDANT MATERIALS ARE NOT INCLUDED**



**NO COMMENTS RECEIVED BY THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES**



Wisconsin Public Service Corporation  
700 North Adams Street  
P.O. Box 19001  
Green Bay, WI 54307-9001  
www.wisconsinpublicservice.com

October 31, 2018

Mr. Nicholas Utrup  
U.S. Fish & Wildlife Service  
Department of the Interior  
4101 American BLVD E  
Bloomington, MN 55425

Dear Mr. Utrup:

**SUBJECT: Purple Loosetrife Monitoring Plan - Purple Loosetrife Monitoring Report**

<u>Hydro</u>	<u>FERC Project No.</u>	<u>NATDAM No.</u>	<u>License Article</u>
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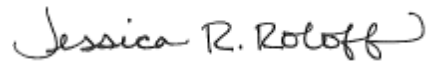
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Mr. Nicholas Utrup  
October 31, 2018  
Page 2 of 2

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

Enc: Appendix A – 2018 Purple Loosestrife Survey Results  
Appendix B – Purple Loosestrife Population Comparison Table (2015 – 2018)

**IN THE INTEREST OF PAPERWORK REDUCTION, REDUNDANT MATERIALS ARE NOT INCLUDED**

**NO COMMENTS RECEIVED BY THE US FISH AND WILDLIFE SERVICE**