



Wisconsin Public Service Corporation

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

www.wisconsinpublicservice.com

December 22, 2017

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

Dear Ms. Bose:

SUBJECT: Invasive Species Monitoring Plan

<u>Hydro</u>	<u>FERC Project No.</u>	<u>NATDAM No.</u>	<u>License Article</u>
Alexander	1979	WI00748	406

In accordance with the Federal Energy Regulatory Commission (FERC) Order Approving the Invasive Species Monitoring Plan for the Alexander Hydroelectric Project (Project), issued March 4, 2005, Wisconsin Public Service (WPS) is required to file the purple loosestrife (PL), Eurasian water milfoil (EWM), and zebra mussel (ZM) monitoring reports to FERC by December 31 of the corresponding year a survey has been completed.

2017 Purple Loosestrife Survey Results

A survey for PL was completed on August 8, 2017. Thirty-seven colonies of PL were identified at the Project. Of the thirty-seven colonies, eight were small colonies and were completely hand pulled and disposed of offsite. The 2017 PL survey results and figures are included in Appendix A.

In 2017, WPS released approximately 6,000 *Galerucella species* beetles, roughly 3,000 beetles in two different locations with existing PL colonies to supplement the existing beetle populations. WPS observed beetle feeding on thirty of the thirty-seven identified colonies.

WPS proposes to continue monitoring for PL and releasing a minimum total of 6,000 beetles annually in at least two separate locations as a biological control method in an attempt to establish healthy beetle populations throughout the Project. WPS will complete the next PL survey in 2018, in conjunction with the EWM survey.

2017 Eurasian Water Milfoil Survey Results

A survey for EWM was completed on August 8, 2017. EWM was not observed during the survey or during any of the previous annual surveys. The 2017 EWM survey results and figures are included in Appendix B. WPS will complete the next EWM survey in 2018, in conjunction with the PL survey.

Ms. Kimberly D. Bose

December 22, 2017

Page 2 of 2

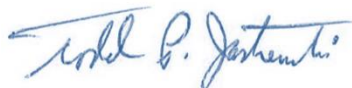
Zebra Mussels

Monthly inspections of substrate samplers for the presence of ZM were conducted during the months of May through September 2017. ZM were not observed during any of the monthly substrate inspections. Appendix C includes the 2017 monthly substrate sampling results.

A copy of this report was submitted to the Wisconsin Department of Natural Resources (WDNR), US Fish and Wildlife Service (FWS), and the University of Wisconsin Sea Grant Institute (UW) on October 25, 2017. FWS and UW provided documentation that they had no comments. The WDNR did not provide any comments. Documentation of Consultation is located in Appendix D. In the interest of paperwork reduction, redundant materials are not included in the Documentation of Consultation.

Should you have any questions relative to this material, please do not hesitate to contact Jes Roloff at (920) 433-5558 or email at JRRoloff@integrysgroup.com.

Sincerely,



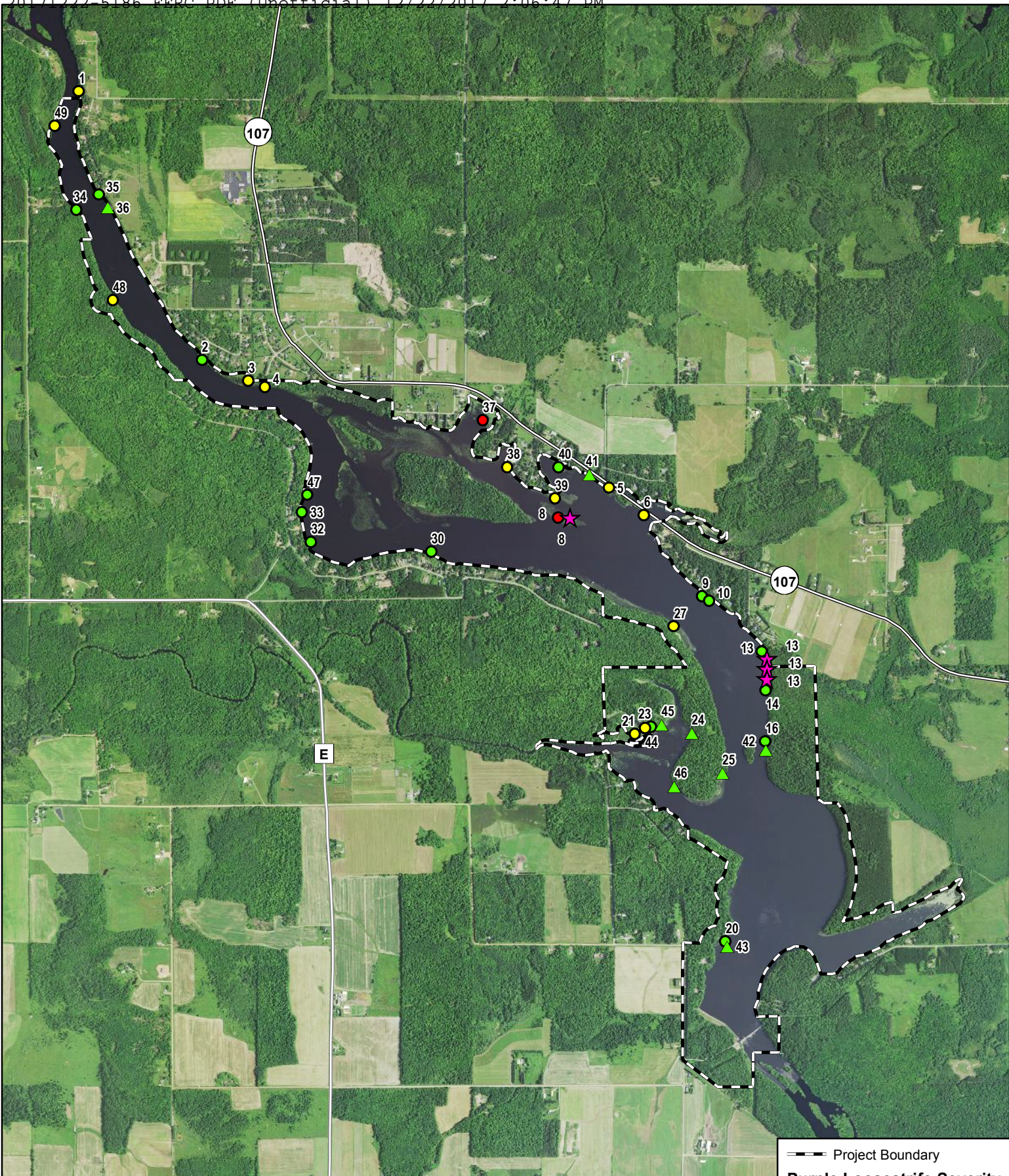
Todd P. Jastremski
Asset Manager Hydro Operations
We Energies
800 Industrial Park Drive
Iron Mountain, MI 49801

JRR / rjv

Enc: Appendix A 2017 Purple Loosestrife Figures and Data (5 pages)
Appendix B 2017 Eurasian Water Milfoil Figures and Data (3 pages)
Appendix C 2017 Zebra Mussel Data (2 pages)
Appendix D Documentation of Consultation (15 pages)

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

APPENDIX A
2017 PURPLE LOOSESTRIFE FIGURES AND DATA



	Oneida
Price	Lincoln
Taylor	
	Marathon

**Alexander
Hydroelectric Project
Purple Loosestrife Survey-2017**

0 1,000 2,000 3,000 4,000
Feet

Date: 10/25/2017

— Project Boundary

Purple Loosestrife Severity

- Small
- ▲ Small; Pulled all plants
- Medium
- ▲ Medium; Pulled all plants
- Large
- ▲ No longer able to identify
- ★ Beetle Release Site

2017 Purple Loosestrife Survey Form

Hydroelectric project: Alexander Hydroelectric Project

Beetle Release Date: June 21, 2017 Inspection date: August 8, 2017

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	M 6-50	4	3	4	11		1761
2	S 0-5	3	3	4	10		1758
3	M 6-50	3	3	4	10		1757
4	M 6-50	3	3	4	10		1756
5	M 6-50	3	3	3	9		1788
6	M 6-50	3	2	3	8		1787
7	No Longer Able To Identify						
8	L >50	3	2	2	7	Released 2,000 beetles	1104
9	S 0-5	3	2	3	8		1786
10	S 0-5	3	3	5	11		1785
11	No Longer Able To Identify						
12	No Longer Able To Identify						
13	S 0-5	3	2	3	8	Released 4,000 beetles near colony 13	1784, 1105, 1106, 1107
14	S 0-5	3	3	5	11		1783
15	No Longer Able To Identify						
16	S 0-5	3	3	5	11		1782
17	No Longer Able To Identify						

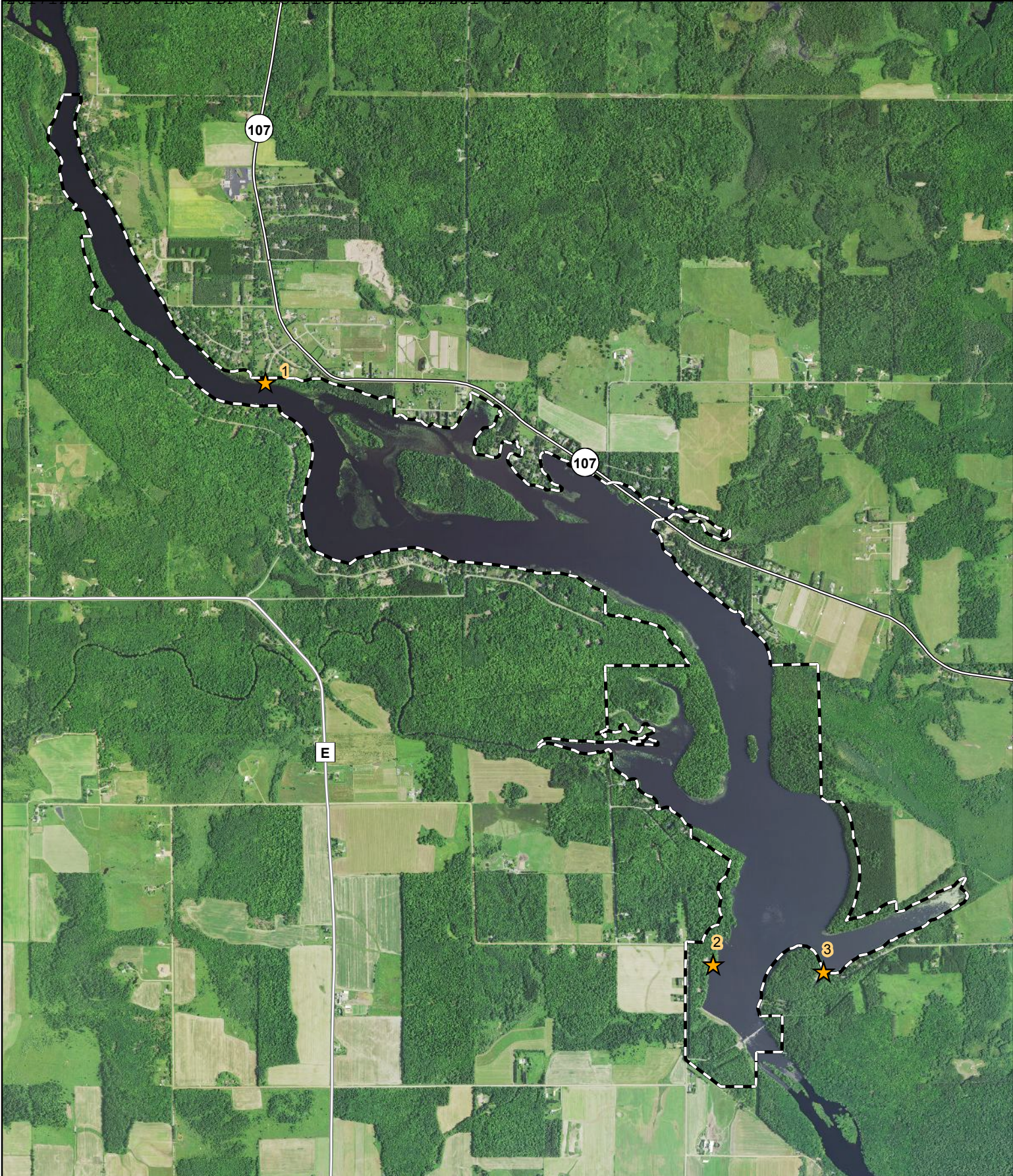
2017 Purple Loosestrife Survey Form


Hydroelectric project: Alexander Hydroelectric Project

Beetle Release Date: June 21, 2017 Inspection date: August 8, 2017

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			
18		No Longer Able To Identify					
19		No Longer Able To Identify					
20	S 0-5	3	3	4	10		1779
21	M 6-50	4	2	2	8		1776
22		No Longer Able To Identify					
23	S 0-5	3	3	4	10		1774
24	S 0-5	3	3	5	11	Pulled all plants.	1772
25	S 0-5	3	1	4	8	NEW. Pulled all plants.	1770
26		No Longer Able To Identify					
27	M 6-50	3	3	4	10		1769
28		No Longer Able To Identify					
29		No Longer Able To Identify					
30	S 0-5	3	3	4	10		1768
31		No Longer Able To Identify					
32	S 0-5	3	2	4	9		1767
33	S 0-5	4	3	5	12		1766
34	S 0-5	3	3	4	10		1763



APPENDIX B
2017 EURASIAN WATER MILFOIL FIGURES AND DATA




	Oneida
Price	Lincoln
Taylor	
	Marathon

**Alexander
Hydroelectric Project
Eurasian Water Milfoil Survey-2017**

0 1,000 2,000 3,000 4,000
Feet

 Project Boundary
 Transect Point

N


Date: 10/24/2017

APPENDIX C
2017 ZEBRA MUSSEL DATA

ZEBRA MUSSEL INSPECTION RESULTS WESTERN HYDROELECTRIC PROJECTS

HYDRO NAME

- | | | | |
|--|---|-----------------------------------|---------------------------------------|
| <input type="checkbox"/> Grandfather Falls | <input type="checkbox"/> Merrill | <input type="checkbox"/> Tomahawk | <input type="checkbox"/> Otter Rapids |
| <input type="checkbox"/> Wausau | <input checked="" type="checkbox"/> Alexander | <input type="checkbox"/> Jersey | <input type="checkbox"/> Hat Rapids |

INSPECTION TYPE: MONTHLY INSPECTION INSPECTION DURING DRAWDOWN
 DATE: 5-31-17
 COMMENTS/RESULTS: None Visible

INSPECTION TYPE: MONTHLY INSPECTION INSPECTION DURING DRAWDOWN
 DATE: 6-13-17
 COMMENTS/RESULTS: 0

INSPECTION TYPE: MONTHLY INSPECTION INSPECTION DURING DRAWDOWN
 DATE: 7-16-17
 COMMENTS/RESULTS: NA

INSPECTION TYPE: MONTHLY INSPECTION INSPECTION DURING DRAWDOWN
 DATE: 8-22-17
 COMMENTS/RESULTS: NA

INSPECTION TYPE: MONTHLY INSPECTION INSPECTION DURING DRAWDOWN
 DATE: 9-20-17
 COMMENTS/RESULTS: NA

INSPECTION TYPE: MONTHLY INSPECTION INSPECTION DURING DRAWDOWN
 DATE: _____
 COMMENTS/RESULTS: _____

INSPECTION TYPE: MONTHLY INSPECTION INSPECTION DURING DRAWDOWN
 DATE: _____
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INSPECTION TYPE: MONTHLY INSPECTION INSPECTION DURING DRAWDOWN
 DATE: _____
 COMMENTS/RESULTS: _____

INSPECTION TYPE: MONTHLY INSPECTION INSPECTION DURING DRAWDOWN
 DATE: _____
 COMMENTS/RESULTS: _____

APPENDIX D
DOCUMENTATION OF CONSULTATION



Wisconsin Public Service Corporation

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

www.wisconsinpublicservice.com

October 25, 2017

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

Dear Ms. Laatsch:

Invasive Species Monitoring Plan

<u>Hydro</u>	<u>FERC Project No.</u>	<u>NATDAM No.</u>	<u>License Article</u>
Alexander	1979	WI00748	406

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In 2017, WPS released approximately 6,000 *Galerucella species* beetles in two different locations with existing PL colonies to supplement the existing beetle populations. WPS observed beetle feeding on thirty of the thirty-seven identified colonies.

WPS proposes to continue monitoring for PL and releasing a minimum of 6,000 beetles annually in at least two separate locations as a biological control method in an attempt to establish healthy beetle populations throughout the Project. WPS will complete the next PL survey in 2018, in conjunction with the EWM survey.

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A survey for EWM was completed on August 8, 2017. EWM was not observed during the survey or during any of the previous annual surveys. The 2017 EWM survey results and figures are included in Appendix C. WPS will complete the next EWM survey in 2018, in conjunction with the PL survey.

Ms. Cheryl Laatsch

October 25, 2017

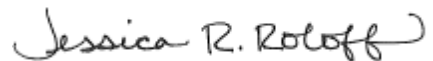
Page 2 of 2

Zebra Mussels

Monthly inspections of substrate samplers for the presence of ZM were conducted during the months of May through September 2017. ZM were not observed during any of the monthly substrate inspections. Appendix C includes the 2017 monthly substrate sampling results.

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 JRRoloff@integrysgroup.com.

Sincerely,

A handwritten signature in cursive script that reads "Jessica R. Roloff".

Jes Roloff
Environmental Consultant

Enclosures

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 25, 2017

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

Dear Mr. Utrup:

Invasive Species Monitoring Plan

<u>Hydro</u>	<u>FERC Project No.</u>	<u>NATDAM No.</u>	<u>License Article</u>
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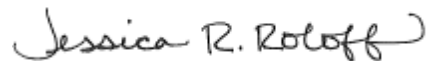
Mr. Nick Utrup
October 25, 2017
Page 2 of 2

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Sincerely,

A handwritten signature in cursive script that reads "Jessica R. Roloff".

Jes Roloff
Environmental Consultant

Enclosures

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

COMMENTS RECEIVED BY THE US FISH AND WILDLIFE SERVICE

Roloff, Jessica R

From: Utrup, Nick <nick_utrup@fws.gov>
Sent: Wednesday, October 25, 2017 11:27 AM
To: Roloff, Jessica R
Subject: Re: WPS Alexander Hydro Electric Project Invasive Species Monitoring Report

WARNING: This email was sent from an external address. Exercise caution when opening links or attachments.
Thanks Jessica, I won't be providing any comments on the invasive reports

Nick Utrup
U.S. Fish and Wildlife Service
Minnesota/Wisconsin Field Office
4101 American Boulevard East
Bloomington, MN 55425

Office: (952) 252-0092 Ext. 204
FAX: (952) 646-2873
Email: Nick_Utrup@fws.gov

On Wed, Oct 25, 2017 at 11:16 AM, Roloff, Jessica R <JRRoloff@integrysgroup.com> wrote:

Good Morning Nick,

In accordance with the Federal Energy Regulatory Commission (FERC) Order Approving the Invasive Species Monitoring Plan for the Alexander Hydroelectric Project (Project), issued March 4, 2005, Wisconsin Public Service Corporation (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 October 31, each year a survey has been completed.

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.

Jes Roloff

Environmental Consultant

WEC Energy Group – Business Services

office : 920-433-5558

fax : 920-433-1176

email: JRRoloff@integrysgroup.com

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Wisconsin Public Service Corporation

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

www.wisconsinpublicservice.com

October 24, 2017

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>
Alexander	1979	WI00748	406

In accordance with the Federal Energy Regulatory Commission (FERC) Order Approving the Invasive Species Monitoring Plan for the Alexander Hydroelectric Project (P-1979), issued March 4, 2005, Wisconsin Public Service Corporation (WPS) is to provide monitoring reports of the zebra mussel surveys to the University of Wisconsin Sea Grant by October 31, each year a survey has been completed.

Monthly inspections of substrate samplers for the presence of zebra mussels were conducted during the months of May through September 2017. Zebra mussels were not observed during any of the monthly substrate inspections. Appendix A includes the 2017 monthly substrate sampling results.

Please provide any comments you may have regarding this report within 30 days. Should you have any questions or require additional information, please do not hesitate to contact me at 920-433-5558 or JRRoloff@integrysgroup.com.

Sincerely,

A handwritten signature in black ink that reads 'Jessica R. Roloff'.

Jessica Roloff
Environmental Consultant

Enclosure

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

COMMENTS RECEIVED BY THE UNIVERSITY OF WISCONSIN SEA GRANT INSTITUTE

Roloff, Jessica R

From: TITUS SEILHEIMER <tseilheimer@aqua.wisc.edu>
Sent: Wednesday, October 25, 2017 7:18 AM
To: Roloff, Jessica R
Subject: RE: Alexander Annual Zebra Mussel Report

WARNING: This email was sent from an external address. Exercise caution when opening links or attachments.
Thanks Jes.

Titus S. Seilheimer, Ph.D.
Fisheries Specialist
Wisconsin Sea Grant
920-683-4697
tseilheimer (at) aqua.wisc.edu

From: Roloff, Jessica R [<mailto:JRRoloff@integrysgroup.com>]
Sent: Tuesday, October 24, 2017 3:41 PM
To: TITUS SEILHEIMER <tseilheimer@aqua.wisc.edu>
Subject: Alexander Annual Zebra Mussel Report

Good Afternoon Mr. Seilheimer,

In accordance with the Federal Energy Regulatory Commission (FERC) Order Approving the Invasive Species Monitoring Plan for the Alexander Hydroelectric Project (P-1979), issued March 4, 2005, Wisconsin Public Service Corporation (WPS) is to provide monitoring reports of the zebra mussel surveys to the University of Wisconsin Sea Grant by October 31, each year a survey has been completed. Please see attached for the monitoring reports.

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.

Jes Roloff

Environmental Consultant
WEC Energy Group – Business Services
office : 920-433-5558
fax : 920-433-1176
email: JRRoloff@integrysgroup.com

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