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

December 17, 2008

Ms. Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
Mail Code: DTCA, HL 21.3
888 First Street, N.E.
Washington, DC 20426

Dear Secretary Bose:

Alexander Hydroelectric Project (FERC Project No. 1979) Annual Invasive Species Survey Results

As per the order approving the Invasive Species Monitoring Plan for the Alexander Hydroelectric Project (Project No. 1979) issued on March 4, 2005, Wisconsin Public Service Corporation (WPSC) is submitting results of the purple loosestrife, Eurasian water milfoil (EWM) and zebra mussel surveys.

A purple loosestrife survey was conducted on July 28, 2008. Purple loosestrife was identified within the Alexander Hydroelectric Project. A total of 89 colonies of purple loosestrife were identified at the project, an increase of 9 colonies from the 2007 survey. However, of the 89 colonies identified only 4 colonies had a population greater than 50+ plants, a decrease of 8 colonies from the 2007 survey. The information indicates that some colonies have decrease in population, and no new colonies were observed. WPSC believes this is because of *Galerucella* Beetles (beetles) observed feeding on the plants. Beetles and/or beetle activity was observed at 29 colonies. Because the beetles were observed throughout the reservoir and are highly susceptible to the negative effects of herbicides, no plants were sprayed. A data sheet and a figure providing the 2008 purple loosestrife results, a figure of beetle activity location and the 2007 to 2008 purple loosestrife comparison results are included in Appendix A.

Although beetles are currently located within the Alexander Hydroelectric Project, WPSC is planning to provide supplement to Invasive Species Monitoring Plan requesting in part, to release beetles at location where an increase in beetle population would be necessary to control purple loosestrife. WPSC will provide this information to the resource agencies for comment prior to submitting to the Federal Energy Regulatory Commission (FERC). It is anticipated that the supplement will be submitted prior to January 1, 2009.

A EWM survey was conducted on July 28, 2008. EWM samples were collected at three sampling locations within the Alexander Hydroelectric Project. No EWM was identified during the survey. A summary of 2008 EWM survey results has been included in Appendix B.

Monthly inspections of substrate samplers for the presence of zebra mussels were conducted during the months of May through September. Zebra mussels were not found during any of the monthly 2008 inspections. A summary of the results has been included in Appendix C.

Documentation of submittal of these results to the resource agencies can be found in Appendix D.

Should you have any questions or require additional information, please do not hesitate to contact James Nuthals at (920) 433-1460

Sincerely,

Terry P. Jensky
Vice President - Energy Supply Operations
Telephone: (920) 433-2900

syx

Enc.

cc: Ms. Joan Johanek, WPSC - D2
Mr. Bruce Crocker, WPSC - D2
Mr. Gil Snyder, WPSC - D2
Mr. William Bloczynski, WPSC - MERH
Mr. Howard Giesler, WPSC - PUL
Ms. Carlisa Linton, FERC - DC

APPENDIX A

PURPLE LOOSESTRIFE SURVEY - 2008

APPENDIX B

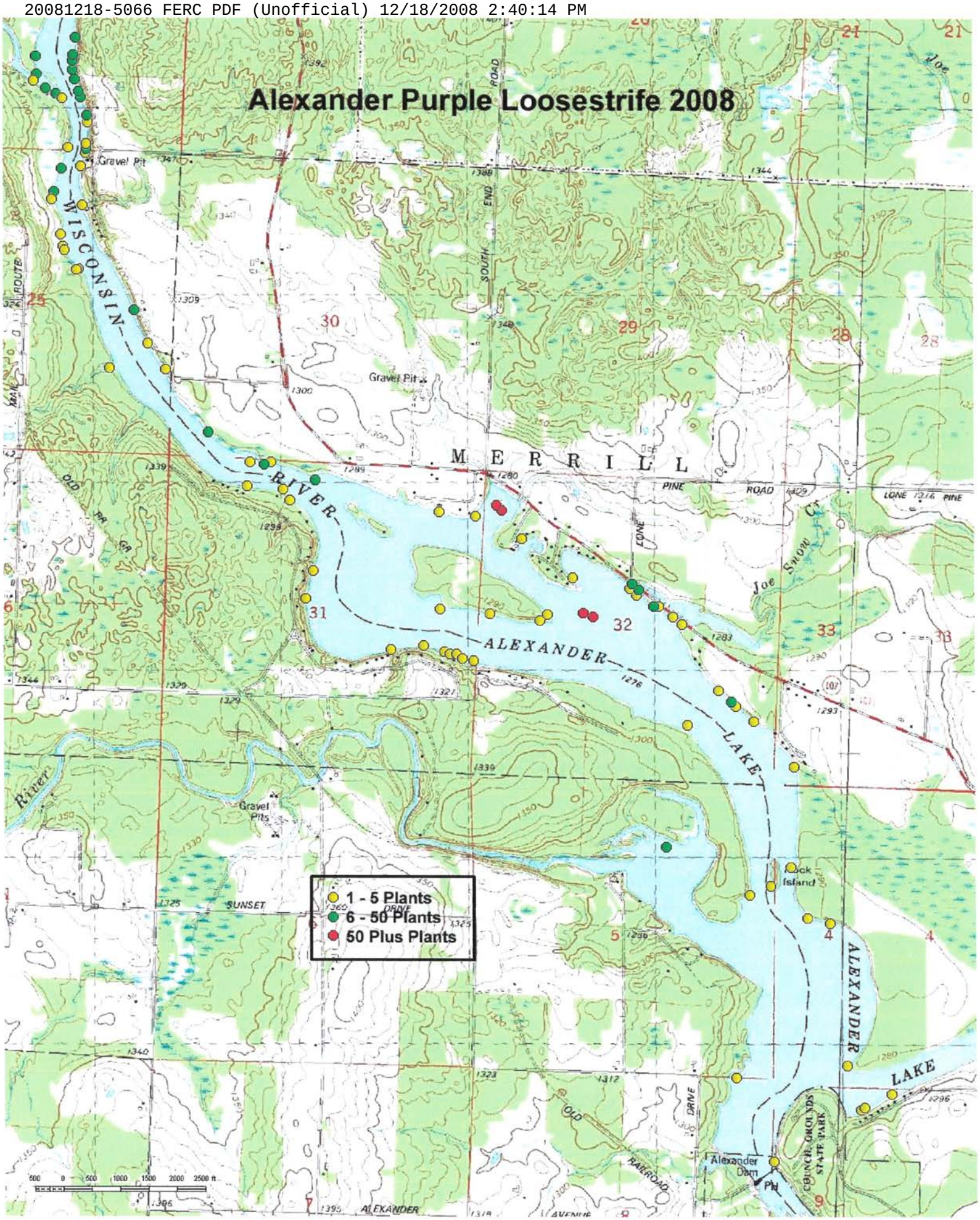
EURASIAN WATERMILFOIL SURVEY - 2008

APPENDIX C

ZEBRA MUSSEL SURVEY - 2008

APPENDIX D

DOCUMENTATION OF SUBMITTAL - 2008



Purple Loosestrife Survey - 2008

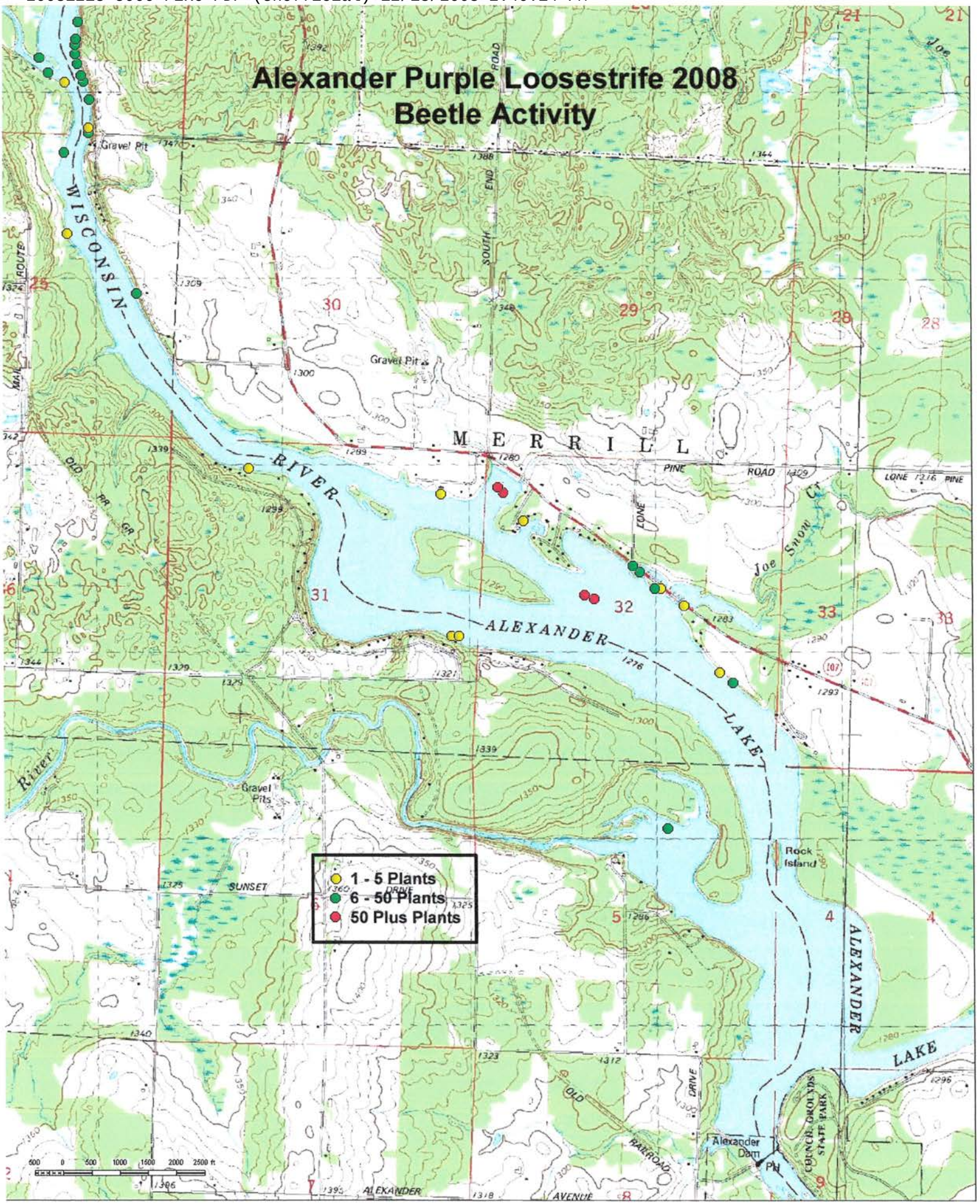
Alexander

Number	Latitude	Longitude	Amount	Beetles
1	45° 13.27642	89° 47.40738	1-5 Plants	
2	45° 13.27064	89° 47.43459	6-50 Plants	
3	45° 13.27531	89° 47.49125	1-5 Plants	
4	45° 13.35594	89° 47.66749	6-50 Plants	
5	45° 13.53392	89° 47.84932	1-5 Plants	
6	45° 13.60849	89° 47.92736	1-5 Plants	
7	45° 13.70061	89° 47.98832	6-50 Plants	
8	45° 13.99782	89° 48.21167	1-5 Plants	
9	45° 14.10995	89° 48.22273	1-5 Plants	
10	45° 14.15016	89° 48.20757	1-5 Plants	
11	45° 14.16109	89° 48.20512	1-5 Plants	
12	45° 14.16091	89° 48.20530	6-50 Plants	Yes
13	45° 14.17486	89° 48.20580	1-5 Plants	Yes
14	45° 14.23800	89° 48.20361	1-5 Plants	
15	45° 14.25693	89° 48.20780	6-50 Plants	Yes
16	45° 14.30916	89° 48.23341	6-50 Plants	Yes
17	45° 14.32509	89° 48.24466	6-50 Plants	Yes
18	45° 14.36063	89° 48.26132	6-50 Plants	Yes
19	45° 14.38839	89° 48.27030	6-50 Plants	Yes
20	45° 14.41378	89° 48.27360	6-50 Plants	Yes
21	45° 14.43050	89° 48.26933	6-50 Plants	Yes
22	45° 14.48047	89° 48.26321	6-50 Plants	Yes
23	45° 14.42234	89° 48.42264	6-50 Plants	
24	45° 14.37221	89° 48.41766	6-50 Plants	
25	45° 14.35226	89° 48.42732	1-5 Plants	
26	45° 14.33134	89° 48.37966	6-50 Plants	Yes
27	45° 14.31629	89° 48.33596	6-50 Plants	
28	45° 14.30435	89° 48.31107	1-5 Plants	Yes
29	45° 14.16200	89° 48.27801	1-5 Plants	
30	45° 14.10078	89° 48.30304	6-50 Plants	Yes
31	45° 14.03468	89° 48.33078	6-50 Plants	
32	45° 14.01315	89° 48.33947	1-5 Plants	
33	45° 13.91259	89° 48.29673	1-5 Plants	
34	45° 13.87815	89° 48.28530	1-5 Plants	
35	45° 13.86643	89° 48.28021	1-5 Plants	Yes
36	45° 13.81479	89° 48.21974	1-5 Plants	
37	45° 13.81139	89° 48.22761	1-5 Plants	
38	45° 13.53346	89° 48.07987	1-5 Plants	
39	45° 13.20482	89° 47.50150	1-5 Plants	Yes
40	45° 13.20135	89° 47.35351	1-5 Plants	
41	45° 13.16869	89° 47.32487	1-5 Plants	
42	45° 12.96727	89° 47.21891	1-5 Plants	
43	45° 12.88813	89° 47.24628	1-5 Plants	
44	45° 12.74995	89° 46.89218	1-5 Plants	
45	45° 12.76252	89° 46.75957	1-5 Plants	
46	45° 12.74861	89° 46.67144	1-5 Plants	
47	45° 12.74175	89° 46.65084	1-5 Plants	Yes
48	45° 12.74238	89° 46.62108	1-5 Plants	Yes
49	45° 12.73001	89° 46.59713	1-5 Plants	

Purple Loosestrife Survey - 2008

Alexander

Number	Latitude	Longitude	Amount	Beetles
50	45° 12.72539	89° 46.55072	1-5 Plants	
51	45° 12.56226	89° 45.66830	1-5 Plants	
52	45° 12.10740	89° 45.30366	1-5 Plants	
53	45° 12.07909	89° 45.39037	1-5 Plants	
54	45° 12.20972	89° 45.74149	6-50 Plants	Yes
55	45° 11.54986	89° 45.42173	1-5 Plants	
56	45° 11.31238	89° 45.25764	1-5 Plants	
57	45° 11.46851	89° 44.90949	1-5 Plants	
58	45° 11.47571	89° 44.89626	1-5 Plants	
59	45° 11.51671	89° 44.78807	1-5 Plants	
60	45° 11.59401	89° 44.97312	1-5 Plants	
61	45° 12.00464	89° 45.05853	1-5 Plants	
62	45° 12.01905	89° 45.15249	1-5 Plants	
63	45° 12.16370	89° 45.22395	1-5 Plants	
64	45° 12.45181	89° 45.22416	1-5 Plants	
65	45° 12.58138	89° 45.39563	1-5 Plants	
66	45° 12.62277	89° 45.47138	1-5 Plants	
67	45° 12.63519	89° 45.48915	6-50 Plants	Yes
68	45° 12.66575	89° 45.54497	1-5 Plants	Yes
69	45° 12.85277	89° 45.70353	1-5 Plants	Yes
70	45° 12.87286	89° 45.74115	1-5 Plants	
71	45° 12.90100	89° 45.80056	1-5 Plants	Yes
72	45° 12.89993	89° 45.82441	6-50 Plants	Yes
73	45° 12.93116	89° 45.89621	1-5 Plants	
74	45° 12.94935	89° 45.92359	1-5 Plants	
75	45° 12.94619	89° 45.88569	6-50 Plants	Yes
76	45° 12.96269	89° 45.91401	6-50 Plants	Yes
77	45° 12.97398	89° 46.15572	1-5 Plants	
78	45° 12.86351	89° 46.06855	50+ Plants	Yes
79	45° 12.87399	89° 46.10832	50+ Plants	Yes
80	45° 12.84926	89° 46.28528	1-5 Plants	
81	45° 12.86324	89° 46.49053	1-5 Plants	
82	45° 12.87061	89° 46.69612	1-5 Plants	
83	45° 12.86690	89° 46.25485	1-5 Plants	
84	45° 13.08138	89° 46.37143	1-5 Plants	Yes
85	45° 13.16293	89° 46.45551	50+ Plants	
86	45° 13.17644	89° 46.47945	50+ Plants	
87	45° 13.14123	89° 46.56237	1-5 Plants	
88	45° 13.15062	89° 46.71271	1-5 Plants	Yes
89	45° 13.22877	89° 47.22364	6-50 Plants	



Alexander Hydroelectric Project Purple Loosestrife Survey 2008

Size	Locations identified in 2007	Locations identified in 2008	Control Method
1 to 5	57	61	beetles in area no cutting
6 to 50	11	24	beetles in area no cutting
50+	12	4	beetles in area no cutting
Total	80	89	

Eurasian Milfoil Survey – July 28, 2008

Alexander

Transect #	0 - 0.5 M	0.5 - 1.5 M	1.5 - 3.0 M	> 3.0 M	Origin
1A	0	NA	NA	NA	45 13.266
1B	0	0	NA	NA	89 47.399
1C	0	0	NA	NA	
2A	0	NA	NA	NA	45 11.460
2B	0	0	NA	NA	89 44.957
2C	0	0	NA	NA	
3A	0	NA	NA	NA	45 11.401
3B	0	0	NA	NA	89 45.488
3C	0	0	0	NA	

N/A: Not Applicable

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

Note: All transects are 40 feet in length and proceed away from shore in a direction perpendicular to the shoreline

ZEBRA MUSSEL INSPECTION RESULTS
WESTERN HYDROELECTRIC PROJECTS

HYDRO NAME

☐	Grandfather Falls	☐	Merrill	☐	Tomahawk	☐	Otter Rapids
☐	Wausau	☒	Alexander	☐	Jersey	☐	Hat Rapids

INSPECTION TYPE: ☒ MONTHLY INSPECTION ☐ INSPECTION DURING DRAWDOWN
DATE: 4/10/08
COMMENTS/RESULTS: 0

INSPECTION TYPE: ☒ MONTHLY INSPECTION ☐ INSPECTION DURING DRAWDOWN
DATE: 5/16/08
COMMENTS/RESULTS: 0

INSPECTION TYPE: ☒ MONTHLY INSPECTION ☐ INSPECTION DURING DRAWDOWN
DATE: 6/14/08
COMMENTS/RESULTS: 0

INSPECTION TYPE: ☒ MONTHLY INSPECTION ☐ INSPECTION DURING DRAWDOWN
DATE: 7/14/08
COMMENTS/RESULTS: 0

INSPECTION TYPE: ☒ MONTHLY INSPECTION ☐ INSPECTION DURING DRAWDOWN
DATE: 8/18/08
COMMENTS/RESULTS: 0

INSPECTION TYPE: ☒ MONTHLY INSPECTION ☐ INSPECTION DURING DRAWDOWN
DATE: 9/5/08
COMMENTS/RESULTS: 0

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

October 21, 2008

Mr. Dale Simon - Chief Biologist
Wisconsin Department of Natural Resources
101 S. Webster Street WT/4
PO Box 7921
Madison, WI 53703

Dear Mr. Simon:

Alexander Hydroelectric Project (Project No. 1979) Invasive Species Survey Reports

As per the order approving the Invasive Species Monitoring Plan for the Alexander Hydroelectric Project (Project No. 1979) issued on March 4, 2005, Wisconsin Public Service Corporation (WPSC) is submitting the purple loosestrife, Eurasian watermilfoil (EWM) and zebra mussel survey results.

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Monthly inspections of substrate samplers for the presence of zebra mussels were conducted during the months of May through September. Zebra mussels were not found during any of the monthly 2008 inspections. A summary of the results has been included in Appendix C.

If you have any questions, please do not hesitate to call me at (920) 433-1460.

Sincerely,

James D. Nuthals
Environmental Services - Natural Resource Management
for Wisconsin Public Service Corporation

syx

Enc.

cc: Ms. Joan Johanek, WPSC - D2 Mr. Bill Bloczynski, WPSC - MERH

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

October 21, 2008

Mr. Nicholas Utrup
U.S. Fish & Wildlife Service
Department of the Interior
2661 Scott Tower Drive
New Franken, WI 54229-9565

Dear Mr. Utrup:

Alexander Hydroelectric Project (Project No. 1979) Invasive Species Survey Reports

As per the order approving the Invasive Species Monitoring Plan for the Alexander Hydroelectric Project (Project No. 1979) issued on March 4, 2005, Wisconsin Public Service Corporation (WPSC) is submitting the purple loosestrife, Eurasian watermilfoil (EWM) and zebra mussel survey results.

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Environmental Services - Natural Resource Management
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cc: Ms. Joan Johanek, WPSC - D2 Mr. Bill Bloczynski, WPSC - MERH

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

October 21, 2008

Mr. Phil Moy
UW Manitowoc
705 Viebann Street
Manitowoc, WI 54220

Dear Mr. Moy:

Alexander Hydroelectric Project (Project No. 1979) Zebra Mussels Survey Report

As per the order approving the Invasive Species Monitoring Plan for the Alexander Hydroelectric Project (Project No. 1979) issued on March 4, 2005, Wisconsin Public Service Corporation (WPSC) is submitting the survey results for zebra mussels.

Monthly inspections of substrate samplers for the presence of zebra mussels were conducted during the months of May through September. Zebra mussels were not found during any of the monthly 2008 inspections. A summary of the results has been included in Appendix A.

If you have any questions, please do not hesitate to call me at (920) 433-1460.

Sincerely,

James D. Nuthals
Environmental Services - Natural Resource Management
for Wisconsin Public Service Corporation

syx

Enc.

cc: Ms. Joan Johanek, WPSC
Mr. Bill Bloczynski, WPSC - MERH

Document Content(s)