

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

October 22, 2010

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

Dear Secretary Bose:

FERC Project No. 2525, No. 2595, No. 2522, No. 2546, No. 2560 and No. 2581

As per the Order Approving the Updated Comprehensive Land and Wildlife Management Plan for the Caldron Falls Project (FERC Project No. 2525), High Falls Project (FERC Project 2595), Johnson Falls Project (FERC Project 2522), Sandstone Rapids Project (FERC Project No. 2546) and Potato Rapids Project (FERC Project No. 2560) issued on March 29, 2006, Wisconsin Public Service Corporation (WPS) is submitting the survey results for purple loosestrife and zebra mussels.

Additionally, as per the Order Approving Supplement to Comprehensive Land and Wildlife Management Plan for the Peshtigo Project (FERC Project No. 2581) issued on July 30, 2009, WPS is submitting year two of a five-year purple loosestrife biological control and monitoring effort.

A survey for purple loosestrife was completed for the Caldron Falls, High Falls, Johnson Falls, Sandstone Rapids and Potato Rapids projects on July 19, 2010. No purple loosestrife was identified at any of the above mentioned projects. Purple loosestrife was again observed at the Peshtigo River Hydroelectric Project.

WPS released *Galerucella sp.* beetles (beetles) at the Peshtigo River Hydroelectric Project on July 6, 2010. WPS estimates that the total numbers of beetles released was approximately 10,000 beetles.

WPS completed a survey of the Peshtigo Project on July 19, 2010. The survey results indicated there remained a total of 25 purple loosestrife communities; however this included the addition of five new small colonies and the subtraction of five previously existing colonies as compared to the 2009 survey results.

Additionally, when compared to the 2009 survey results, the 2010 survey results showed several new areas where beetle feeding was observed. Only one site had beetle feeding in 2009, compared to eight in 2010. Also, heavy beetle feeding was observed at Site 6, where the beetles where released in 2010. Site 6 had a colony plant vigor rating of 12 in 2009 compared to 8 in 2010.

In addition, the overall plant vigor average for each colony was reduced from 11.32 in 2009 to 10.6 in 2010.

Ms. Kimberly D. Bose October 22, 2010 Page 2 of 2

The 2010 Peshtigo Project purple loosestrife location map including colony location and identification number and the general plant vigor survey form are included in Appendix A. Eurasian Water Milfoil surveys are completed every third year with the next survey scheduled for 2011.

Monthly inspections of substrate samplers for the presence of zebra mussels were conducted for all six projects for the months of May through September. Zebra mussels were not found on any of the substrate samples during any of the monthly 2010 inspections.

However, zebra mussels were observed during drawdown activities at the Peshtigo River Hydroelectric Project in September of 2010. During drawdown conditions in 2009, zebra mussels were also identified at the Potato Rapids Hydroelectric Project. Appendix B provides a copy of the monthly substrate sampling reports for each hydroelectric project.

The survey results were provided to the resource agencies on September 14, 2010. The resource agencies did not provide comments. Documentation of submittal of the survey results to the resource agencies is attached as Appendix C.

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

Sincerely,

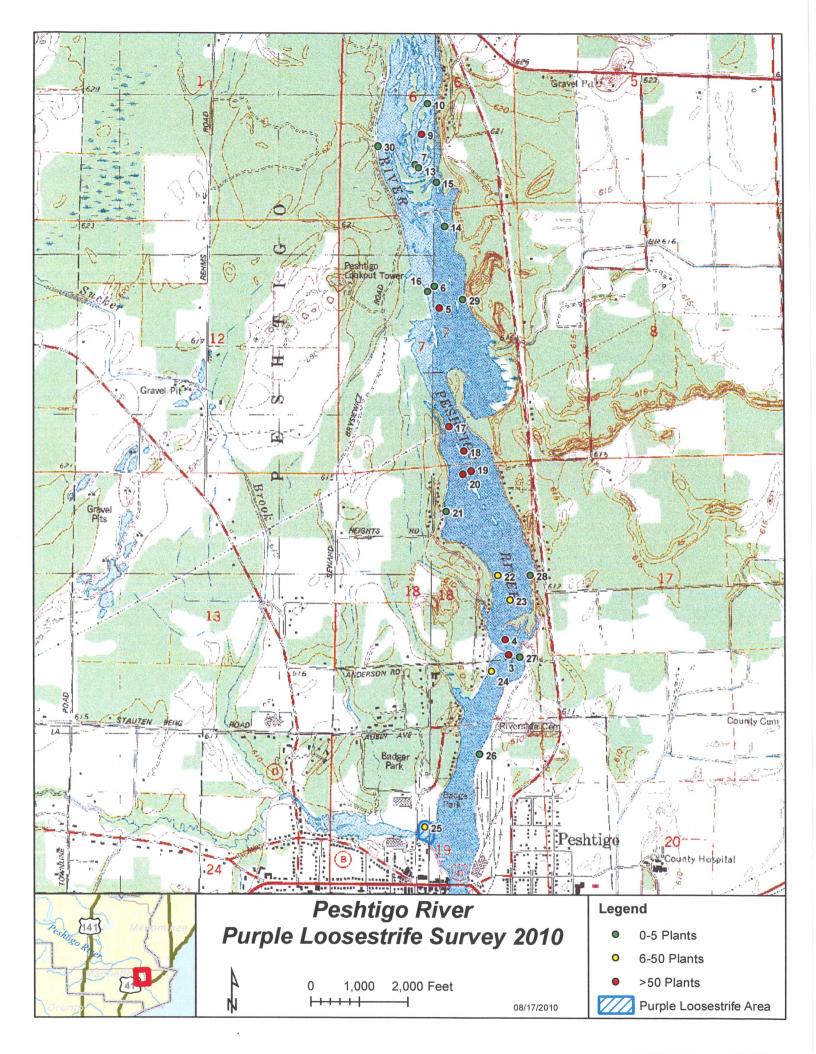
Terry P. Jensky Vice President - Energy Supply Operations for Wisconsin Public Service Corporation

Enc.

cc: Ms. Joan Johanek, WPS - D2 Mr. Bruce Crocker, WPS - D2 Mr. Bill Bosacki, WPS - CRI Mr. Howard Giesler, WPS - PUL Ms. Carlisa Linton, FERC - DC Mr. Ed Brandt, WPS - CRI

APPENDIX A

PURPLE LOOSESTRIFE SURVEY FIGURE AND SURVEY FORM – 2010



Purple Loosestrife Survey Form

Hydroelectric Project **Peshtigo Hydro Electric Project**

Inspection Date

7/19/2010

			General Plant	Vigor			·····		
Colony Number	Colony Size S 0-5 M 6-50 L >50	Plant Height 4=>4ft 3=2-4ft 2=1-2 ft 1= <1 ft	Plant Flowering 4=100% of plants 3=51-99% of plants 2=26-50% of plants 1= <25% of plants	Beetle Feeding 4=0-25% feeding 3=26-50% feeding 2=51-75% feeding 1=76-100% feeding	Total Plant Vigor 10-12=good 7-9=fair 4-6=poor 0-3=very poor	Notes	GPS #		
1		NO LONGER ABLE TO IDENTIFY							
2			NO LONGER	ABLE TO IDENTIFY					
3	L	4	3	4	11		93		
4	L	4	3	4	11	minimal feeding	94		
5	L	2	4	4	10	minimal feeding	95		
6	M	3	3	2	8	heavy feeding	96		
7	S	2	4	2	10	heavy feeding	97		
8			NO LONGER	ABLE TO IDENTIFY					
9	L	3	4	4	11	release spot for 2011	99		
10	S	4	4	4	12		100		
11	NO LONGER ABLE TO IDENTIFY								

Purple Loosestrife Survey Form

Hydroelectric Project **Peshtigo Hydro Electric Project**

Inspection Date

7/19/2010

			General Plant				
Colony Number	Colony Size S 0-5 M 6-50 L >50	Plant Height 4=>4ft 3=2-4ft 2=1-2 ft 1= <1 ft	Plant Flowering 4=100% of plants 3=51-99% of plants 2=26-50% of plants 1= <25% of plants		Total Plant Vigor 10-12=good 7-9=fair 4-6=poor 0-3=very poor	Notes	GPS #
12			NO LONGER	ABLE TO IDENTIFY			
13	S	3	4	4	11		103
14	S	3	4	4	11		104
15	S	3	4	4	11		105
16	S	3	4	4	11		106
17	· L	4	4	4	12		107
18	М	4	3	1	8	release site in 2010	108
19	L	4	4	4	12		109
20	L	4	4	4	12		110
21	S	3	4	4	11		111
22	М	4	4	3	11		112

Purple Loosestrife Survey Form

Hydroelectric Project Peshtigo Hydro Electric Project

Inspection Date

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7/19/2010

			General Plant				
Colony Number	Colony Size S 0-5 M 6-50 L >50	Plant Height 4=>4ft 3=2-4ft 2=1-2 ft 1= <1 ft	Plant Flowering 4=100% of plants 3=51-99% of plants 2=26-50% of plants 1= <25% of plants		Total Plant Vigor 10-12=good 7-9=fair 4-6=poor 0-3=very poor	Notes	GPS #
23	S	3	4	3	10	minimal feeding	113
24	М	3	4	3	10	minimal feeding	114
25	L	2	3	3	8	very scattered	115
26	S	3	4	4	11	new	198
27	S	3	4	4	11	new	199
28	S	3	4	4	11	new	200
29	S	3	4	4	11	new	201
30	S	2	4	4	10	new	203

APPENDIX B

ZEBRA MUSSEL SUBSTRATE SAMPLING REPORTS – 2010

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HYDR	O NAME:					
	Caldron Falls	[] John	son Falls	🗌 Potat	o Rapids	Grand Rapids
Πŀ	igh Falls	Sand	stone Rapids	s 🗌 Pesht	igo	
	Inspect	ion Type	No Zebra	Zebra		
Date	Monthly	During Drawdown	Muscles Present	Muscles Present	Operator	Comments
4/21/10	~		V		MN	
5/10/10	\checkmark		~		MU	
6/22/10	~				MN	
7/8/10	\checkmark		\checkmark		MA	
8/3/10	\mathcal{L}				MN	
9/9/0	1.				MU	3
	2		€			7
				5		
				×.		

2010

X F	High Falls	Sand	stone Rapids	B 🗌 Pesht	igo	
-	Inspect	ion Type	No Zebra	Zebra		
Date	Monthly	During Drawdown	Muscles Present	Muscles Present	Operator	Comments
4/20/10	\checkmark		~		MN	
5/1/10	/		~		MN	
6/0/10			/		NN	
7/8/10	~		\checkmark		MN	
8/3/10			~		ma	
9/9/10	1.				MN	Q
				v		

2010

	Caldron Falls		son Falls		o Rapids	Grand Rapids
F	High Falls	Sand	stone Rapids	B Pesht	igo	
-	Inspect	ion Type	No Zebra	Zebra		
Date	Monthly	During Drawdown	Muscles Present	Muscles Present	Operator	Comments
4/20/10	~		~		MN	
5/7/10	_				MN	
6/23/10	/		_		MN	
7/8/10	\checkmark		/		MN	
8/3/10			/		Ma	
9/9/10					MN	
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			a sa ang ang ang ang ang ang ang ang ang an			
		100 ·		ay		

2010

HYDR	O NAME:								
	Caldron Falls	🗌 Johns	son Falls	Potate	o Rapids	Grand Rapids			
🗌 High Falls 🛛 Sandstone Rapids 🗌 Peshtigo									
	Inspecti	on Type	No Zebra	Zebra					
Date	Monthly	During Drawdown	Muscles Present	Muscles Present	Operator	Comments			
4/19/10					MN				
5/7	-				MN				
6/22/10				С	MN				
778/10	~		/		NN				
\$13			/		MN				
9/9					MN				
			-		-	т			
				v					

HYDRO NAME:

Caldron Falls

Johnson Falls

Τ



Grand Rapids

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High Falls

Sandstone Rapids

🗌 Peshtigo

	Inspect	ion Type	No.7.	Zahar		
Date	Monthly	During Drawdown	No Zebra Muscles Present	Zebra Muscles Present	Operator	Comments
3-5			4		MO	
4-9	1				mcD	
5-13	\mathcal{C}_{q}				MCD	
(-22			~		MCD	
1-23	~		N	i.	MCP	
3-19	\checkmark	a			mad	т.
9-11	\checkmark				T.F.N	1
					1	
						1
				v		

HYDR	O NAME:					
	Caldron Falls	🗌 John	son Falls	Detate	o Rapids	Grand Rapids
[]]	High Falls	Sand	stone Rapids	s Pesht	igo	
	Inspecti	ion Type	No Zebra	Zebra		
Date	Monthly	During Drawdown	Muscles Present	Muscles Present	Operator	Comments
3/5/10	\times	5	\times		Map	
4/9/10	X		\times		MI	, , ,
5-13-10	$\sim \times$		\times		MO	med to replice
6-21-10	X		×		MCD	
7-14-10	X		\times	24	Mil	
7-14-10 8-16-10	×		X		MCD	mad to replace
9-11-10	ila K	x X		r	T.F.N	
					<u>9</u> .	
						2
				v		5

APPENDIX C

DOCUMENTATION OF SUBMITTAL – 2010



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

September 14, 2010

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:

FERC Project No. 2525, No. 2595, No. 2522, No. 2546, No. 2560, and No. 2581

As per the Order Approving the Updated Comprehensive Land and Wildlife Management Plan for the Caldron Falls Project (FERC Project No. 2525), High Falls Project (FERC Project 2595), Johnson Falls Project (FERC Project 2522), Sandstone Rapids Project (FERC Project No. 2546) and Potato Rapids Project (FERC Project No. 2560) issued on March 29, 2006, Wisconsin Public Service Corporation (WPS) is submitting the survey results for purple loosestrife and zebra mussels.

Additionally, as per the Order Approving Supplement to Comprehensive Land and Wildlife Management Plan for the Peshtigo Project (FERC Project No. 2581) issued on July 30, 2009, WPS is submitting year two of a five year purple loosestrife biological control and monitoring effort.

A survey for purple loosestrife was completed for the Caldron Falls, High Falls, Johnson Falls, Sandstone Rapids and Potato Rapids projects on July 19, 2010. No purple loosestrife was identified at any of the above mentioned projects. Purple loosestrife was again observed at the Peshtigo River Hydroelectric Project.

WPS released *Galerucella sp.* beetles (beetles) at the Peshtigo River Hydroelectric Project on July 6, 2010. WPS estimates that the total numbers of beetles released was approximately 10,000 beetles.

WPS completed a survey of the Peshtigo Project on July 19, 2010. The survey results indicated there remained a total of 25 purple loosestrife communities; however this included the addition of five new small colonies and the subtraction of five previously existing colonies as compared to the 2009 survey results.

Additionally, when compared to the 2009 survey results, the 2010 survey results showed several new areas where beetle feeding was observed. Only one site had beetle feeding in 2009, compared to eight in 2010. Also, heavy beetle feeding was observed at Site 6, where the beetles where released in 2010. Site 6 had a colony plant vigor rating of 12 in 2009 compared to 8 in 2010.

In addition, the overall plant vigor average for each colony was reduced from 11.32 in 2009 to 10.6 in 2010.

The 2010 Peshtigo Project purple loosestrife location map including colony location and identification number and the general plant vigor survey form are included in Appendix A.

Eurasian Water Milfoil surveys are completed every third year with the next survey scheduled for 2011.

Monthly inspections of substrate samplers for the presence of zebra mussels were conducted for all six projects for the months of May through September. Zebra mussels were not found on any of the substrate samples during any of the monthly 2010 inspections.

However, zebra mussels were observed during drawdown activities at the Peshtigo River Hydroelectric Project in September of 2010. During drawdown conditions in 2009, zebra mussels were also identified at the Potato Rapids Hydroelectric Project. Appendix B provides a copy of the monthly substrate sampling reports for each hydroelectric project.

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

Sincerely,

-Maria

James Nuthals Environmental Services-Natural Resource Management

Enc.

- cc: Ms. Joan Johanek, WPS D-2 Mr. Bruce Crocker, WPS – D-2 Mr. Bill Bosacki, WPS –CRI
- Mr. Greg Sevener, WDNR Mr. Michael Donofrio, WDNR Mr. Ed Brandt, WPS-CRI



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

September 14, 2010

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

Dear Mr. Utrup:

FERC Project No. 2525, No. 2595, No. 2522, No. 2546, No. 2560, and No. 2581

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

September 14, 2010

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

Dear Mr. Moy:

FERC Project No. 2525, No. 2595, No. 2522, No. 2546, No. 2560, and No. 2581

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