

20% CEC -7 P 7:58

Wisconsin River Power Company

(owners of the Petenwell & Castle Rock Hydroelectric Plants)

P.O. Box 19001

Green Bay, WI 54307-9001

FERC Project No. 1984-076

134

December 7, 2006

Ms. Magalie R. Salas, Secretary

Federal Energy Regulatory Commission

Mail Code: DTCA, HL 21.3

888 First Street, N.E. Washington, DC 20426

ORIGINAL

Dear Secretary Salas:

Invasive Species Monitoring for Petenwell-Castle Rock Project, FERC Project No. 1984-078

and the second second

As per the revised order approving the purple loosestrife and Eurasian watermilfoil monitoring plan pursuant to the license Article 408 for the Petenwell-Castle Rock Project (FERC Project No. 1984-078) issued on July 13, 2005. Wisconsin River Power Company (WRPCO) is submitting the purple loosestrife, Eurasian watermilfoil and zebra mussel survey results.

The Petenwell and Castle Rock Flowages were surveyed for purple loosestrife from July 10, 2006 through July 13, 2006. The presence of purple loosestrife was identified on the Petenwell Flowage, mainly on the north end. Ten colonies were also identified on the southeast end of the flowage and ten colonies were discovered between the north and south end of the flowage. When small colonies and edge colonies were discovered, WRPCO sprayed and/or cut the identified colonies where possible. Three purple loosestrife colonies were identified on the Castle Rock Flowage. All three colonies were sprayed and/or cut.

Per the June 2, 2006 FERC issued 2005 purple loosestrife monitoring report letter, WRPCO is to document if removal methods have been conducted on the identified purple loosestrife colonies and if so, what type of removal methods were conducted. The Petenwell and Castle Rock Flowage 2006 purple loosestrife results and figures, including removal methods, are attached in Appendix A.

Eurasian watermilfoil surveys were also conducted on the Petenwell and Castle Rock Flowages from July 10, 2006 through July 13, 2006. Eurasian watermilfoil were identified at each of the five transect locations where samples were collected. The 2006 Eurasian watermilfoil survey results are similar to the results of the 2003 survey. The Petenwell and Castle Rock Flowage 2006 Eurasian watermilfoil results and figures are attached in Appendix B.

Zebra mussel surveys were conducted on a monthly basis from May to September. A zebra mussel survey was also conducted during the winter drawdown period. No zebra mussels were observed during the surveys. The results of the monthly surveys are attached as Appendix C.

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

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

Sincerely.

Terry P. Jensky

Assistant Vice President - Energy Supply Operations

for Wisconsin Public Service Corporation

Telephone: (715) 355-2047

syx

Enc.

cc: Ms. Joan Johanek, WPSC - D2

Mr. Virgil Schlorke - WRPCO

Mr. Bruce Crocker, WPSC - D2

Ms. Peggy Harding, FERC - Chicago

Mr. Gil Snyder, WPSC, D2

Ms. Carlisa Linton, FERC - DC

Unofficial FERC-Generated PDF of 20061219-0007 Received by FERC OSEC 12/07/2006 in Docket#: P-1984-134

# APPENDIX A 2006 PURPLE LOOSESTRIFE SURVEY

Unofficial FERC-Generated PDF of 20061219-0007 Received by FERC OSEC 12/07/2006 in Docket#: P-1984-134

	Purple Loostrife Survey - 2006				
	Castle	Rock			
Number	Lattude	Longitude	Amount	Removal Method	
1	N 43 58 53.1	W 89 59 00.0	6-50 Plants	Cut and Sprayed	
2	N 43 57 59.1	W 89 56 16.4	50 + Plents	Sprayed	
3	N 44 00 53.9	W 90 00 19.5	8-50 Plents	Cut and Sprayed	

Received by FERC OSEC 12/07/2006

	זקטר	Peterweil		
Number	Lattude	Longfrude	Amount	Removal Methode
-	N 44 05 30.7	W 89 57 35.4	50+ Plants	Cut and Sprayed
~	N 44 05 33.4	W 89 57 40.2	50 + Plants	Cut and Sprayed
3	N 44 05 33.4 to N 44 05 32.5	W 89 57 59.5 to W 89 58 02.3	SO+ Plents	ΑN
4	N 44 05 33 0	W 89 58 05.5	50+ Plants	NA
5	N 44 05 55 2	W 89 58 37.8	6-50 Plants	Cut and Sprayed
20	N 44 05 59 1	W 89 58 45.8	50+ Plants	NA
-	N 44 06 59.0	W 89 58 49.7	S0+ Plants	NA
	N 44 08 08:9	W 89 58 50.1	50+ Plants	ΑN
60	N 44 09 53.7	W 89 54 12.7	50+ Plants	Sprayed
5	N 44 10 06 1	W 89 54 00.0	50+ Plants	Sprayed
=	N 44 10 34.0	0.85 85 88 W	6-50 Planta	Cut and Sprayed
12	N 44 10 12.6	W 89 5a 10.6	50+ Plants	Cut and Sprayed
13	N 44 10 15 8	W87 57 28.5	6-50 Plants	Sprayed
ž	N 44 10 15.7	W 89 57 28.1	6-50 Plants	Sprayed
55	N 44 10 14.8	W 89 57 32.9	6-50 Planta	Sprayed
92	N 44 09 44.5	W 89 58 33.1	6-50 Plants	Sprayed
1:	W 44 08 35.6	W89 58 10.5	1-5 Plants	Cut and Sprayed
<u>≈</u>	N 44 07 55.8	W 90 00 02.8	6-50 Plants	Sprayed
Ģ	N 44 04 16 3	W 90 02 00.3	SO+ Plants	Sprayed
8	N 44 15 00 7	W 89 52 53.1	SO+ Plams	NA
2	N 44 14 27.1	W 89 52 52.1	50+ Plants	NA
22	N 44 15 07 1 to N 44 15 14.4	W 89 54 04.2 to W 89 53 56.3	6-50 Plants	Cut and Sprayed
g	N 44 15 23 1	89 53 42.0	50+ Plants	NA
22	N 44 15 24.0	W 89 53 42.0	50+ Plants	Α¥
ន	N44 15 27.9 to N 15 32.7	W89 53 37 2	50+ Plants	ΑN
8	N 44 17 05.1	W 69 53 05.9	6-50 Plants	NA.
27	N 44 17 20.8	W 89 53 06.5	50+ Plants	ΨN
23	N 44 17 58 9	W 89 53 30.0	50+ Plants	NA
R	N 44 17 51.3	W 89 53 32.8	6-50 Plants	Cut and Sprayed
R	N 44 17 48.8	W 89 53 32 1	1-5 Plants	Cut and Sprayed
150	N 44 16 49 0 to N 44 18 49 4	W 89 53 53.4 to W 89 53 58.4	SO+ Plants	NA.
8	N 44 16 50.3	W 89 54 15.1	50+ Plants	NA
8	N 44 16 45 0	W 89 54 32.0	1-5 Plants	Cut and Sprayed
ᅔ	N 44 16 38.7	W89 54 41.7	50+ Plants throughout channel	NA
S	N 44 16 08.5	W B9 54 41.3	0-5 Plants	Cut and Sprayed
8	N 44 18 09.6	W89 54 15.4	50+ Plants	AN
~	N 44 16 09.3 to N 44 16 06 9	W BS 54 06.2 to W BS 54 05.3	50+ Plants	NA
8	N 44 16 08.1	W 89 54 02 1	50+ Plants	NA.
æ	N 44 15 54.2	W88 53 55.8	50+ Plants (Island)	Ϋ́
\$	N 44 14 39 4	W89 54 17.4	50+ Plants	¥2
¥	N 44 13 07 3	W 89 53 44.5	50+ Plants BIG Island Stretches 200 ft	¥
	0 37 67 77 14	C 30 C3 C4 C4		~ ·

Received by FERC OSEC 12/07/2006

## APPENDIX B 2006 EURASIAN WATERMILFOIL SURVEY

## Eurasian Milfoil Surveys - 2006 Castle Rock

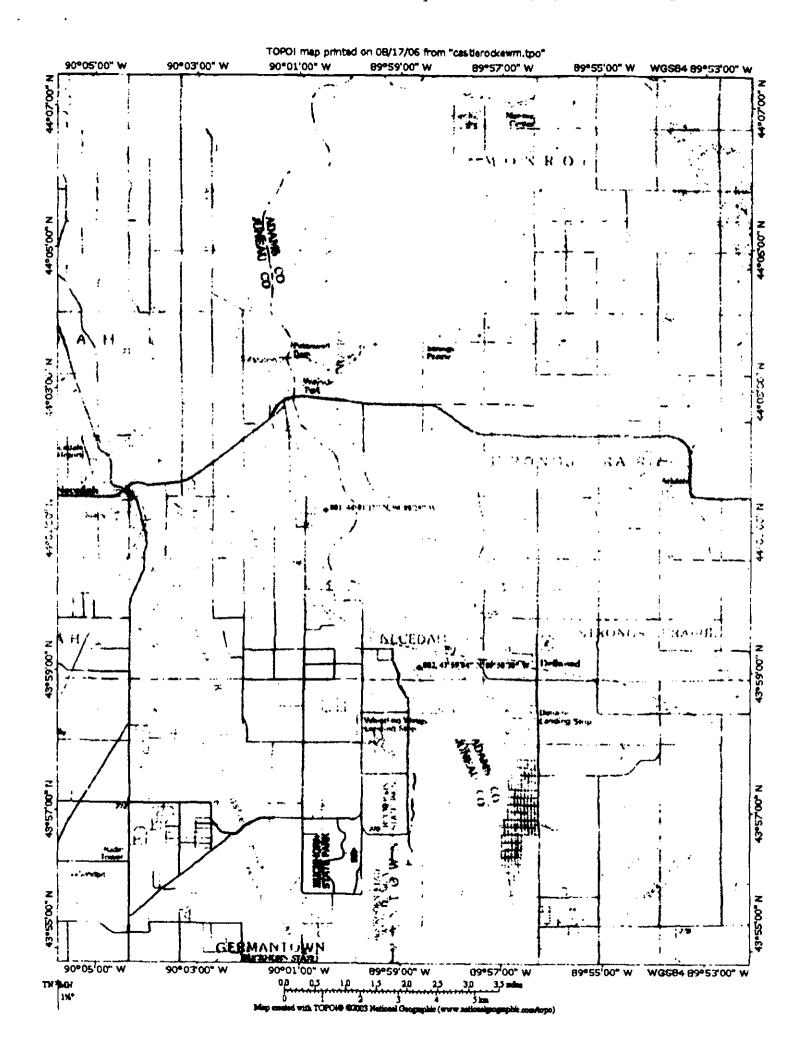
Transect #	0 - 0.5 M	0.5 - 1.5 M	1.5 - 3.0 M	> 3.0 M	Origin
1A	0	0	NA NA	NA	N 44 01 17.1 W 90 00 28.5
1B	0	1	NA	NA NA	
1C	1	2	NA NA	NA.	
2A	0	0	NA NA	NA	N 43 59 04.0 W 89 58 58.1
28	_ 1	1	NA NA	NA	
2C	1	2	NA NA	NA.	

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 transacts are 40 feet in length and proceed in an easterly direction from their origin.



## Eurasian Milfoil Surveys - 2006 Petenwell

Transect #	0 - 0.5 M	0.5 - 1.5 M	1.5 - 3.0 M	> 3.0 M	Origin
1A	0	1	NA NA	NA	N 4 13 44.9 W 89 35 27.8
1B	0	1	NA .	NA	
1C	0	1	NA NA	NA	
2A	4	4	NA NA	NA	N 44 13 55.0 W 89 54 18.8
2B	4	4	NA .	NA.	
2C	4	4	NA .	NA	
3A	1	NA	NA NA	NA	N 44 15 55.4 W 89 53 22.4
3B	1	NA NA	NA	NA NA	
3C	1	NA	NA NA	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 in an easterly direction from their origin.

FERC-Generated PDF of 20061219-0007 Received by FERC OSEC 12/07/2006

Unofficial FERC-Generated PDF of 20061219-0007 Received by FERC OSEC 12/07/2006 in Docket#: P-1984-134-

## APPENDIX C 2006 ZEBRA MUSSEL SURVEYS

Unofficial FERC-Generated PDF of 20061219-0007 Received by FERC OSEC 12/07/2006 in Docket#: P-1984-134

### ZEBRA MUSSEL INSPECTION RESULTS WRPCO HYDROELECTRIC PROJECTS

#### **HYDRO NAME**

Peterwell Flowage

Castle Rock Flowage

INSPECTION TYPE: IN MONTHLY INSP DATE: 5/17/06	ECTION INSPECTION DURING DRAWDOWN
COMMENTS/RESULTS: 1/2 Zel	na Mussel. found
	·
INSPECTION TYPE: A MONTHLY INSP	PECTION INSPECTION DURING DRAWDOWN
DATE: 6-15-06	
COMMENTS/RESULTS: No Zeb	ra Mussele found
INSPECTION TYPE: MONTHLY INSP	PECTION I INSPECTION DURING DRAWDOWN
DATE: 7-17-06	E EMILETION DORMO DRAW DOWN
COMMENTS/RESULTS: No Zel	ra Mussels fund
COMMENTS/RESULTS. 100 ZEBY	ra mussels bund
INSPECTION TYPE: # MONTHLY INSP	PECTION INSPECTION DURING DRAWDOWN
DATE: 8-21-06	
COMMENTS/RESULTS: NO Z.L.	bea Mussels foresal
INSPECTION TYPE:   MONTHLY INSP	ECTION DURING DRAWDOWN
DATE: 7-21-06	·
COMMENTS/RESULTS: NO ZE	BRA MUSSELS FOUND
INSPECTION TYPE: I MONTHLY INSP	ECTION INSPECTION DURING DRAWDOWN
DATE:	
COMMENTS/RESULTS:	
<u> </u>	

Sep 28 06 07 39a Gerry Ganther

608-565-2355

ρ1

### ZEBRA MUSSEL INSPECTION RESULTS WRPCO HYDROELECTRIC PROJECTS

HYDRO NAME		
Petenwell Flowage  Castle Rock Flowage	THETALLE &	4/28/25
	CHECK	UNIT W MONTH
INSPECTION TYPE:	MONTHLY INSPECTION	☐ INSPECTION DURING DRAWDOWN
DATE: 5-17-06	1	
COMMENTS/RESULTS:	NO Mussels	
INSPECTION TYPE:	MONTHLY INSPECTION	I INSPECTION DURING DRAWDOWN
DATE: 6-15-06		
COMMENTS/RESULTS:	NO ZERRA MU	ssels found
INSPECTION TYPE:	MONTHLY INSPECTION	☐ INSPECTION DURING DRAWDOWN
DATE: 7-17.06		
COMMENTS/RESULTS:	No Zebra Muss	els found
INSPECTION TYPE: S	MONTHLY INSPECTION	D INSPECTION DURING DRAWDOWN
DATE: 8-16-06		_
COMMENTS/RESULTS:	NOZEBRA	Mussels found
	MONTHLY INSPECTION	☐ INSPECTION DURING DRAWDOWN
DATE: 9-22-0 6	<del></del>	
COMMENTS/RESULTS:	NO ZEBRA	Mussels found
INSPECTION TYPE: D	MONTHLY INSPECTION	INSPECTION DURING DRAWDOWN
DATE		
COMMENTS/RESTITES		

## APPENDIX D 2006 DOCUMENTATION OF SUBMITTAL



September 29, 2006

#### Wisconsin River Power Company

towners of the Ferenwell & Castle Rock mydroelectic Frantsi PO Box 19001

Green Bay, W: 54307 900 i.

Mr. Robert Martini Wisconsin Department of Natural Resources 107 Sutliff Ave. Rhinelander, WI 54501

Dear Mr. Martini:

### Exotic Species Monitoring for FERC Project No. 1984-078

As per the Federal Energy Regulatory Commission (FERC) order approving Purple Loosestrife and Eurasian Water Milfoil Monitoring Plan for the Petenwell-Castle Rock Project (FERC Project No. 1984-078) issued on January 22, 2003. Wisconsin River Power Company (WRPCO) is submitting the survey results for purple loosestrife, Eurasian watermilfoil and zebra mussels.

The Petenwell and Castle Rock Flowages were surveyed for purple loosestrife from July 10, 2006 through July 13, 2006. The presence of purple loosestrife was identified on the Petenwell Flowage, mainly on the north end. Ten colonies were also identified on the southeast end of the flowage and ten colonies were discovered between the north and south end of the flowage. When small colonies and edge colonies were discovered, WRPCO sprayed and/or cut the identified colonies, where possible. Three purple loosestrife colonies were identified on the Castle Rock Flowage. All three colonies were sprayed and/or cut.

Per the June 2, 2006, FERC issued 2005 purple loosestrife monitoring report letter, WRPCO is to report if removal methods have been conducted on the identified purple loosestrife colonies and if so, what type of removal methods were conducted. This information is to be reported in the annual invasive species monitoring reports.

The Petenwell and Castle Rock Flowage 2006 purple loosestrife results and figures, including removal methods, are attached in Appendix A

Eurasian watermilfoil surveys were also conducted on the Petenwell and Castle Rock Flowages from July 10, 2006 through July 13, 2006. Eurasian watermilfoil was identified at each of the five transect locations where samples were collected. The 2006 Eurasian watermilfoil survey results are similar to the survey conducted in 2003. The

Mr. Robert Martini September 29, 2006 Page 2 of 2

Petenwell and Castle Rock Flowage 2006 Eurasian watermilfoil results and figures are attached in Appendix B.

Per the FERC correspondence to WRPCO, dated June 5, 2006, WRPCO is required to conduct monthly inspections for zebra mussels on the Petenwell and Castle Rock Flowages. The inspections are to be conducted once each month from May to September on an annual basis. The surveys will also be conducted during the winter drawdown period and for any maintenance related drawdown. The results of the monthly surveys are attached as Appendix C.

No maintenance related drawdown has been conducted in 2006. Results of the winter drawdown zebra mussel survey will be conducted after the filing of this report. If any zebra mussels are identified during winter drawdown or during an unexpected maintenance related drawdown, WRPCO will notify the Wisconsin Department of Natural Resources (WDNR) and the U.S. Fish & Wildlife Service (FWS) of such findings.

Should you have any questions or require additional information, please do not hesitate to contact me at your earliest convenience.

Sincerely

James D. Nuthals

Environmental Consultant Telephone: (920) 433-1460

syx

Enc.

cc: Ms. Joan Johanek, WPSC - D2

Mr. Virgil Schlorke, WRPCO



September 29, 2006

#### Wisconsin River Power Company

lowner: of the Peteriwal: & Castle Rock Hydroelectric Paints/

PC 80: 1900!

Green Bay, Wi 54307 9001

Ms. Louise Clemency
U.S. Fish & Wildlife Service
Department of the Interior
2661 Scott Tower Drive
New Franken, WI 54229-9565

Dear Ms. Clemency:

Exotic Species Monitoring for FERC Project No. 1984-078

As per the Federal Energy Regulatory Commission (FERC) order approving Purple Loosestrife and Eurasian Water Milfoil Monitoring Plan for the Petenwell-Castle Rock Project (FERC Project No. 1984-078) issued on January 22, 2003. Wisconsin River Power Company (WRPCO) is submitting the survey results for purple loosestrife, Eurasian watermilfoil and zebra mussels.

The Petenwell and Castle Rock Flowages were surveyed for purple loosestrife from July 10, 2006 through July 13, 2006. The presence of purple loosestrife was identified on the Petenwell Flowage, mainly on the north end. Ten colonies were also identified on the southeast end of the flowage and ten colonies were discovered between the north and south end of the flowage. When small colonies and edge colonies were discovered, WRPCO sprayed and/or cut the identified colonies, where possible. Three purple loosestrife colonies were identified on the Castle Rock Flowage. All three colonies were sprayed and/or cut.

Per the June 2, 2006, FERC issued 2005 purple loosestrife monitoring report letter, WRPCO is to report if removal methods have been conducted on the identified purple loosestrife colonies and if so, what type of removal methods were conducted. This information is to be reported in the annual invasive species monitoring reports.

The Petenwell and Castle Rock Flowage 2006 purple loosestrife results and figures, including removal methods, are attached in Appendix A

Eurasian watermilfoil surveys were also conducted on the Petenwell and Castle Rock Flowages from July 10, 2006 through July 13, 2006. Eurasian watermilfoil was identified at each of the five transect locations where samples were collected. The 2006 Eurasian watermilfoil survey results are similar to the survey conducted in 2003. The

Ms. Louise Clemency September 29, 2006 Page 2 of 2

Petenwell and Castle Rock Flowage 2006 Eurasian watermilfoil results and figures are attached in Appendix B.

Per the FERC correspondence to WRPCO, dated June 5, 2006, WRPCO is required to conduct monthly inspections for zebra mussels on the Petenwell and Castle Rock Flowages. The inspections are to be conducted once each month from May to September on an annual basis. The surveys will also be conducted during the winter drawdown period and for any maintenance related drawdown. The results of the monthly surveys are attached as Appendix C.

No maintenance related drawdown has been conducted in 2006. Results of the winter drawdown zebra mussel survey will be conducted after the filing of this report. If any zebra mussels are identified during winter drawdown or during an unexpected maintenance related drawdown, WRPCO will notify the Wisconsin Department of Natural Resources (WDNR) and the U.S. Fish & Wildlife Service (FWS) of such findings.

Should you have any questions or require additional information, please do not hesitate to contact me at your earliest convenience.

Sincerely,

James D. Nuthals

Environmental Consultant Telephone: (920) 433-1460

SYX

Enc.

cc: Ms. Joan Johanek, WPSC - D2

Mr. Virgil Schlorke, WRPCO