



Wisconsin Public Service Corporation

700 North Adams Street

P.O. Box 19001

Green Bay, WI 54307-9001

October 21, 2011

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, Eurasian water milfoil (EWM) and zebra mussels.

Additionally, as per the Order Approving Supplement to Comprehensive Land and Wildlife Management Plan for the Peshtigo Hydroelectric Project (FERC Project No. 2581) issued on July 30, 2009, WPS is submitting an update on the 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 Hydroelectric Projects from July 17<sup>th</sup> through July 27<sup>th</sup>, 2011. No purple loosestrife was identified at Caldron Falls, High Falls, Johnson Falls or Sandstone Rapids projects. One small colony of purple loosestrife was observed at Potato Rapids. That colony was hand pulled. Appendix A includes a figure of the purple loosestrife colony located at Potato Rapids.

Purple loosestrife was observed at the Peshtigo Hydroelectric Project. WPS again released *Galerucella* sp. beetles (beetles) at the Peshtigo Hydroelectric Project on July 12, 2011. WPS estimates that the total released was approximately 10,000 beetles.

WPS completed a survey of the Peshtigo Project on August 4, 2011. The survey results indicated that the purple loosestrife colonies have been reduced from 25 colonies in 2010 to 20 colonies observed in 2011. In addition 6 of the 20 colonies observed in 2011 were hand pulled leaving a total of 14 colonies remaining on the project. Only one of the colonies recorded was a new colony.

Additionally, an increase in beetle feeding was observed from the 2010 to the 2011 survey results. In 2010, feeding was observed at only 8 of the 25 sites. In 2011, feeding was observed at all 14 colonies. The success of the beetle feeding is even more significant when compared to the first year of beetle release in 2009, results from the 2009 survey indicated beetle feeding on only one site.

In addition, the overall plant vigor average for the purple loosestrife colonies was reduced from 10.6 in 2010 to 7.3 in 2011.

WPS anticipates a continuing trend in the reduction of purple loosestrife colonies, colony size and overall plant vigor at the Peshtigo Hydroelectric Project.

Ms. Kimberly D. Bose

October 21, 2011

Page 2 of 2

The 2011 Peshtigo Hydroelectric Project purple loosestrife location map including colony location, identification number and the general plant vigor survey form are included in Appendix A.

A survey for EWM was completed for the Caldron Falls, High Falls, Johnson Falls, Sandstone Rapids and Potato Rapids Hydroelectric Projects from July 17<sup>th</sup> through July 27<sup>th</sup>, 2011 and for the Peshtigo Hydroelectric Project on August 4, 2011. EWM was identified as present in small populations (<1 acre) at the Peshtigo and Potato Rapids Projects. EWM populations at the Sandstone Rapids encompassed 21 acres scattered throughout the reservoir and 8 acres of EWM were observed at the Johnson Falls Project. Larger populations of EWM were identified at the High Falls (610 acres) and Caldron Falls Projects (148 acres). In comparison to the previous EWM survey completed in 2008, the populations have shown little change.

It is important to note that the acres included on the figures represent the boundary extent of where the EWM was identified. Within those acres are consists a variety of aquatic vegetation, in most cases EWM populations were identified at presence less than half when compared to the surrounding vegetation comprising the acreage.

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 2011 inspections. Even though zebra mussels were not observed on the substrate samplers, they have been observed and are present at the Peshtigo and Potato Hydroelectric Projects. Appendix C provides a copy of the monthly substrate sampling reports for each hydroelectric project.

The survey results were provided to the resource agencies on September 15, 2011. The resource agencies did not provide comments. Documentation of submittal of the survey results to the resource agencies is attached as Appendix D.

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

Sincerely,

A handwritten signature in black ink, appearing to read "T. Jensky for". The signature is stylized and includes a horizontal line extending to the right.

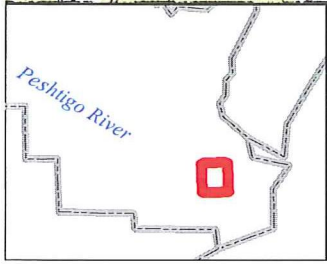
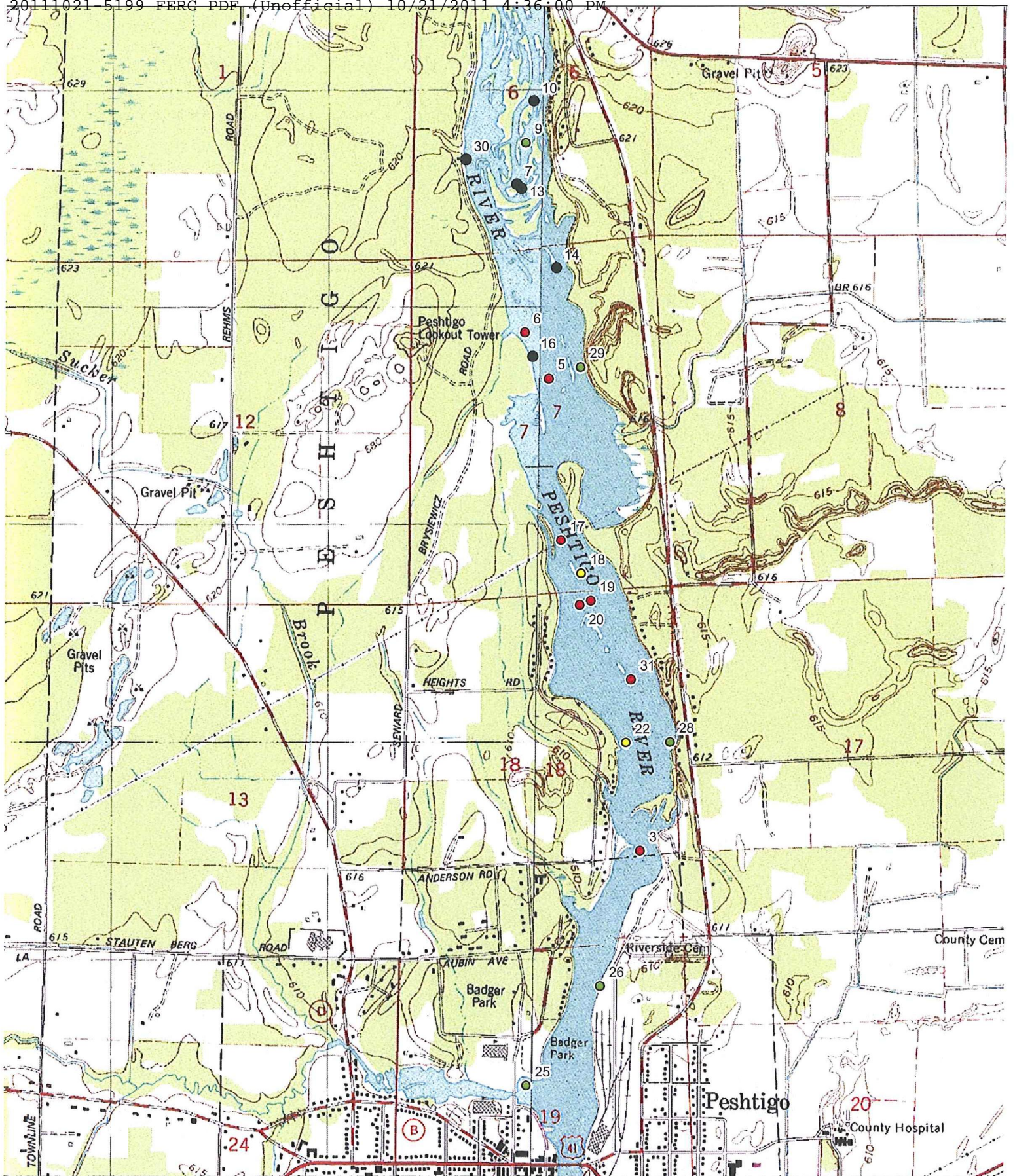
Terry P. Jensky  
Vice President - Energy Supply Operations  
for Wisconsin Public Service Corporation

Enc.

cc: Mr. Ed Brandt, WPS  
Mr. Bruce Crocker, WPS  
Mr. Howard Giesler, WPS

## APPENDIX A

### PURPLE LOOSESTRIFE SURVEY RESULTS



## Peshtigo River Purple Loosestrife Survey 2011



Legend	
● (Black)	PULLED
● (Green)	0-5 Plants
● (Yellow)	6-50 Plants
● (Red)	>50 Plants

09/08/2011

## Purple Loosestrife Survey Form

Hydroelectric Project Peshtigo Hydro Electric Project

Inspection Date 8/4/2011

### 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	2	9		93
4	NO LONGER ABLE TO IDENTIFY						
5	L	2	4	4	10		95
6	L	3	2	2	7	New Coordinates	220
7	N/A	N/A	N/A	N/A	N/A	Pulled	97
8	NO LONGER ABLE TO IDENTIFY						
9	S	1	1	1	3	release spot for 2011	99
10	N/A	N/A	N/A	N/A	N/A	Pulled	100
11	NO LONGER ABLE TO IDENTIFY						

## Purple Loosestrife Survey Form

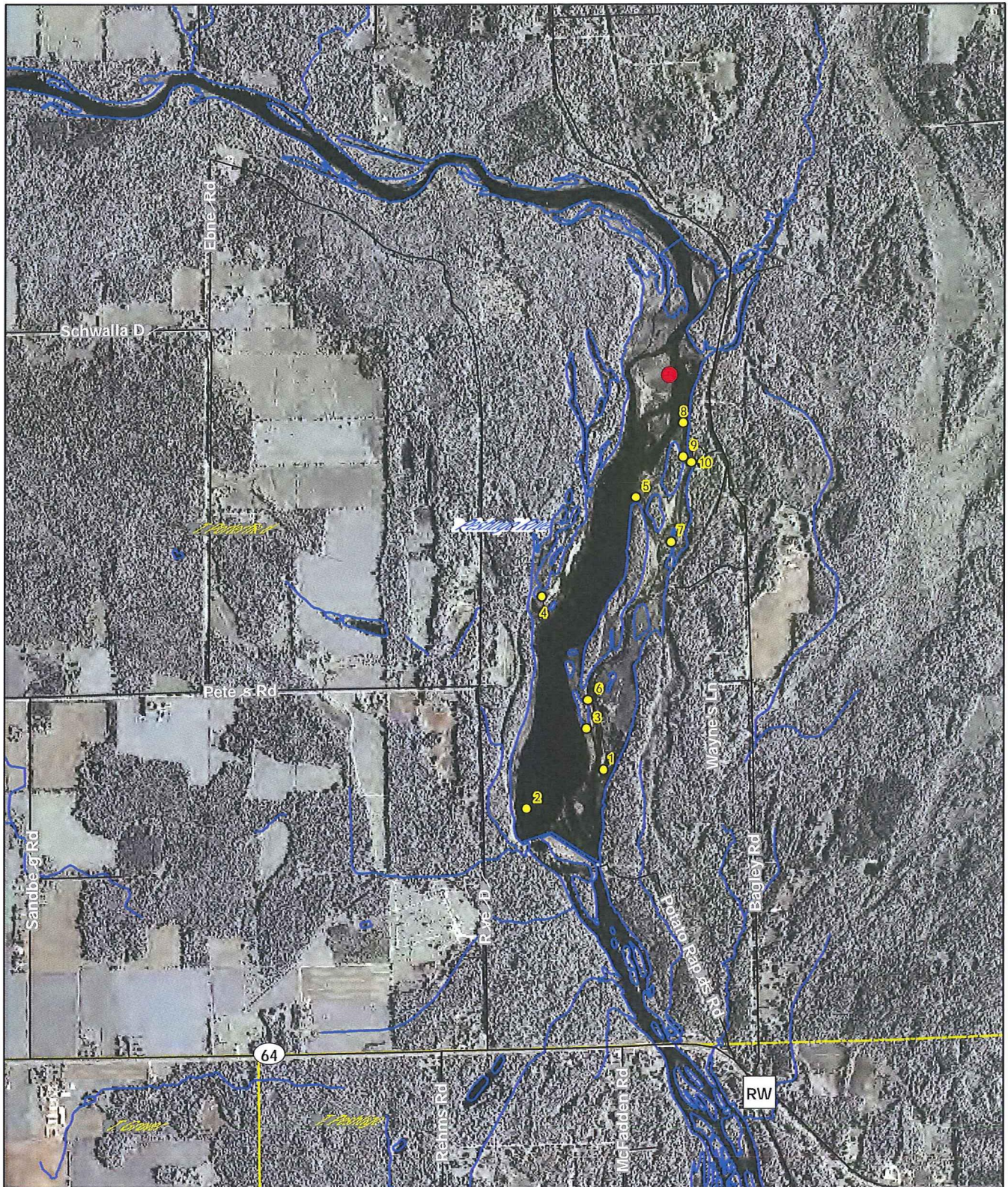
Hydroelectric Project Peshtigo Hydro Electric Project

Inspection Date 8/4/2011

### 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 #
12	NO LONGER ABLE TO IDENTIFY						
13	N/A	N/A	N/A	N /A	N/A	Pulled	103
14	N/A	N/A	N/A	N /A	N/A	Pulled	104
15	NO LONGER ABLE TO IDENTIFY						
16	N/A	N/A	N/A	N /A	N/A	Pulled	106
17	L	4	3	2	9		107
18	M	3	3	1	7	release site in 2010	108
19	L	4	2	1	7	Heavy feeding	109
20	L	4	2	1	7	Heavy feeding	110
21	NO LONGER ABLE TO IDENTIFY						
22	M	2	4	1	7		112





Transect Origin	Roadway
Purple Loosetrife	WDNR Waterway
	WDNR Waterbody
	Community Boundary

0 0.125 0.25  
 Mile

Orthophotography: NAIP, Summer 2010  
 Source: WDNR, WisDOT, NRCS, GAI, 2011.

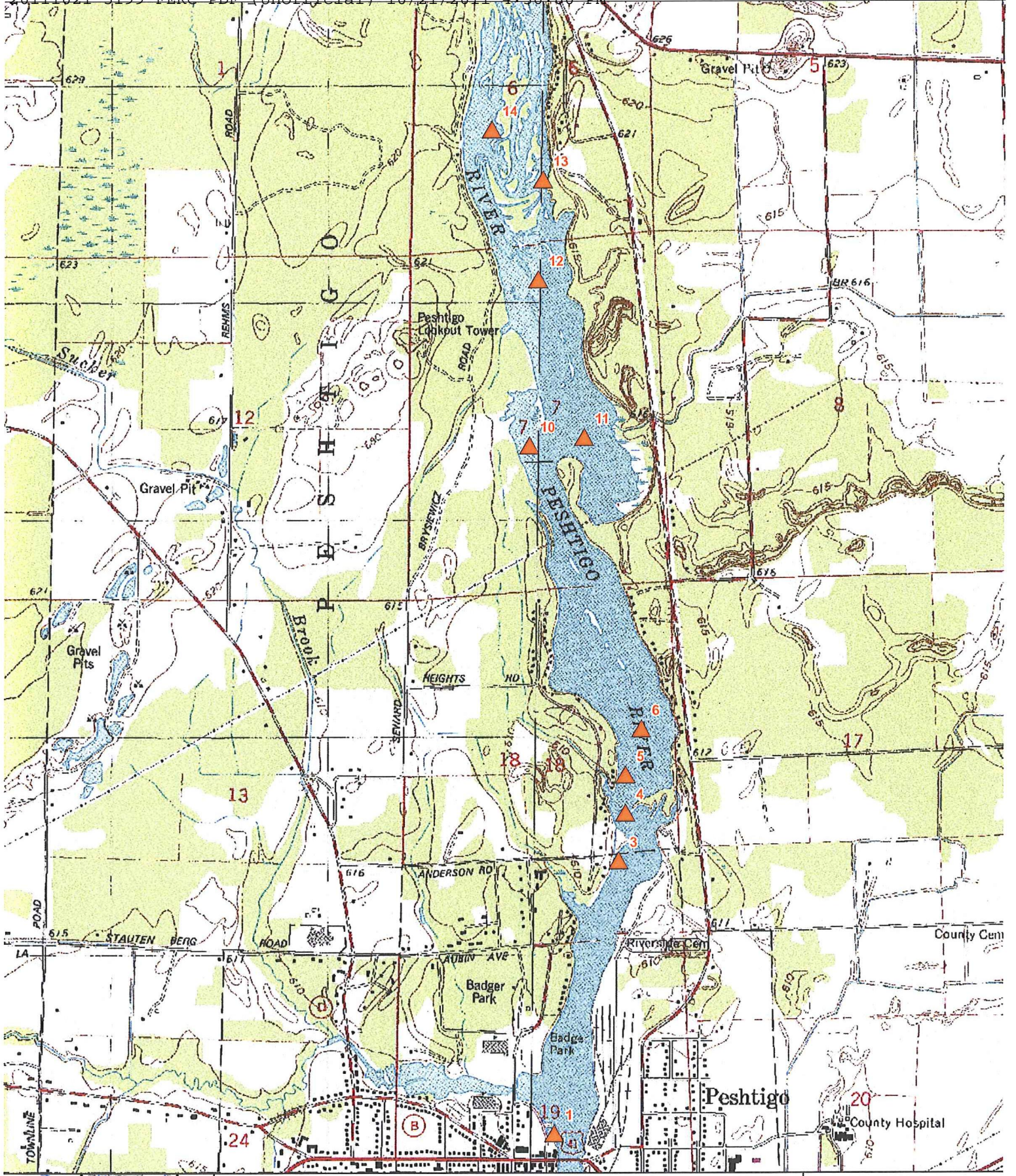
**Peshtigo River  
 Hydroelectric Project  
 Potato Rapids  
 Marinette County, WI**

**gai consultants**  
 An Energy & GAI Company

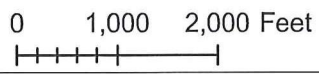


## APPENDIX B

### EWM SURVEY RESULTS



## Peshtigo River Eurasian Water Milfoil Survey 2011



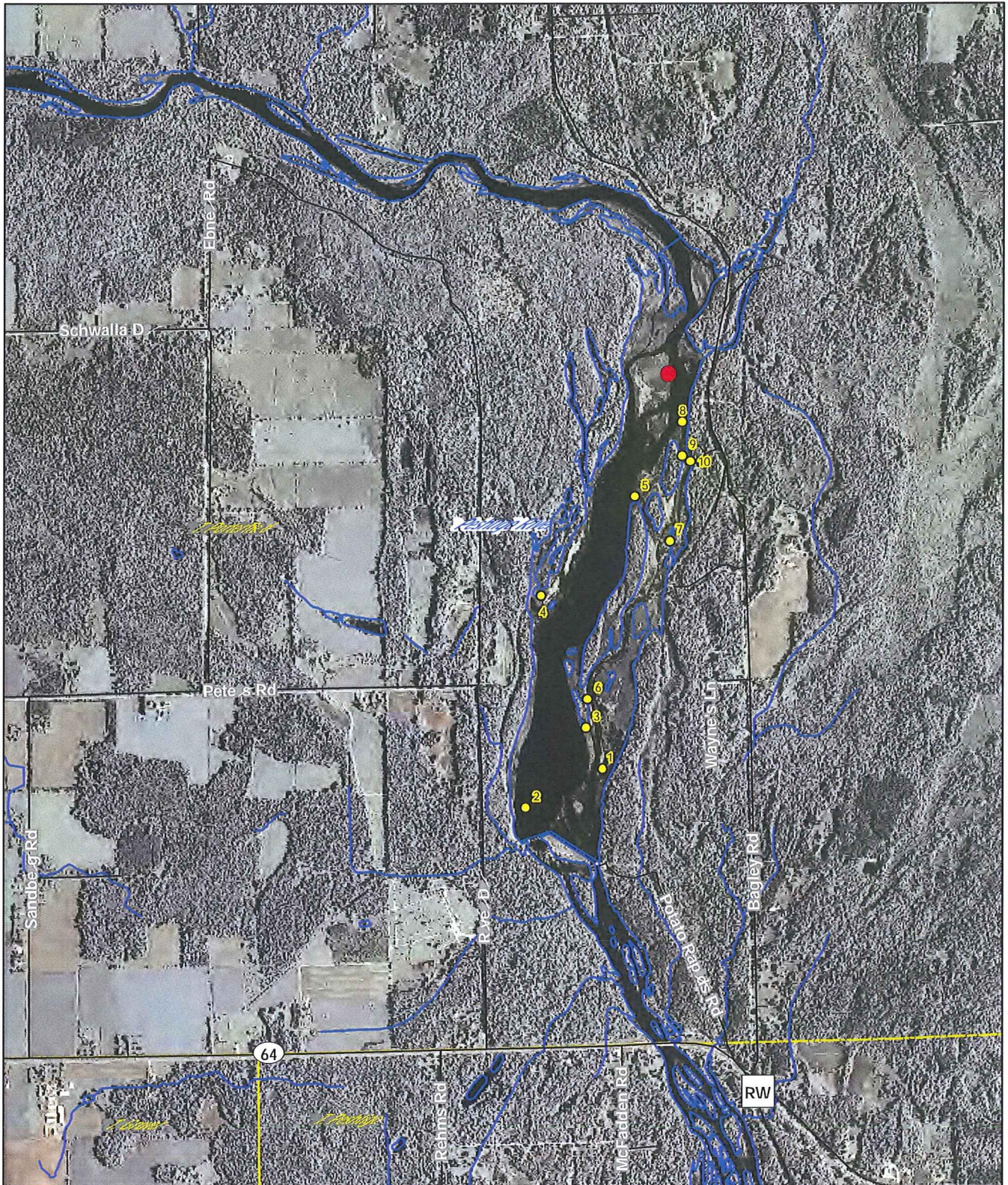
**Legend**  
 EWM Transect

## Eurasian Milfoil Surveys

## Peshtigo River Hydroelectric Project

Transect #	0 - 0.5 M	0.5 - 1.5 M	1.5 - 3.0 M	> 3.0 M	Origin
1A	0	0	N/A	N/A	45 03.332
1B	0	0	N/A	N/A	87 44.925
1C	0	0	N/A	N/A	
2A					
2B					
2C					
3A	0	0	N/A	N/A	45 04.010
3B	0	0	N/A	N/A	87 44.708
3C	0	0	N/A	N/A	
4A	0	0	N/A	N/A	45 04.129
4B	0	0	N/A	N/A	87 44.687
4C	0	0	N/A	N/A	
5A	0	0	N/A	N/A	45 04.223
5B	0	1	N/A	N/A	87 44.687
5C	0	1	N/A	N/A	
6A	0	1	N/A	N/A	45 04.338
6B	0	0	N/A	N/A	87 44.634
6C	0	0	N/A	N/A	
7A					
7B					
7C					
8A					
8B					
8C					
9A					
9B					
9C					
10A	0	1	N/A	N/A	45 05.038
10B	0	1	N/A	N/A	87 45.039
10C	0	0	N/A	N/A	
11A	0	0	0	N/A	45 05.060
11B	0	0	0	N/A	87 44.846
11C	0	0	N/A	N/A	
12A	0	0	N/A	N/A	45 05.450
12B	0	0	N/A	N/A	87 45.015
12C	0	0	N/A	N/A	
13A	N/A	N/A	N/A	N/A	45 05.699
13B	N/A	N/A	0	N/A	87 45.002
13C	N/A	N/A	0	N/A	
14A	0	0	N/A	N/A	45 05.822
14B	0	0	N/A	N/A	87 45.184
14C	0	0	N/A	N/A	
15A					
15B					
15C					

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



	Transect Origin		Roadway
	Purple Loosestrife		WDNR Waterway
			WDNR Waterbody
			Community Boundary

0 0.125 0.25  
  
 Mile

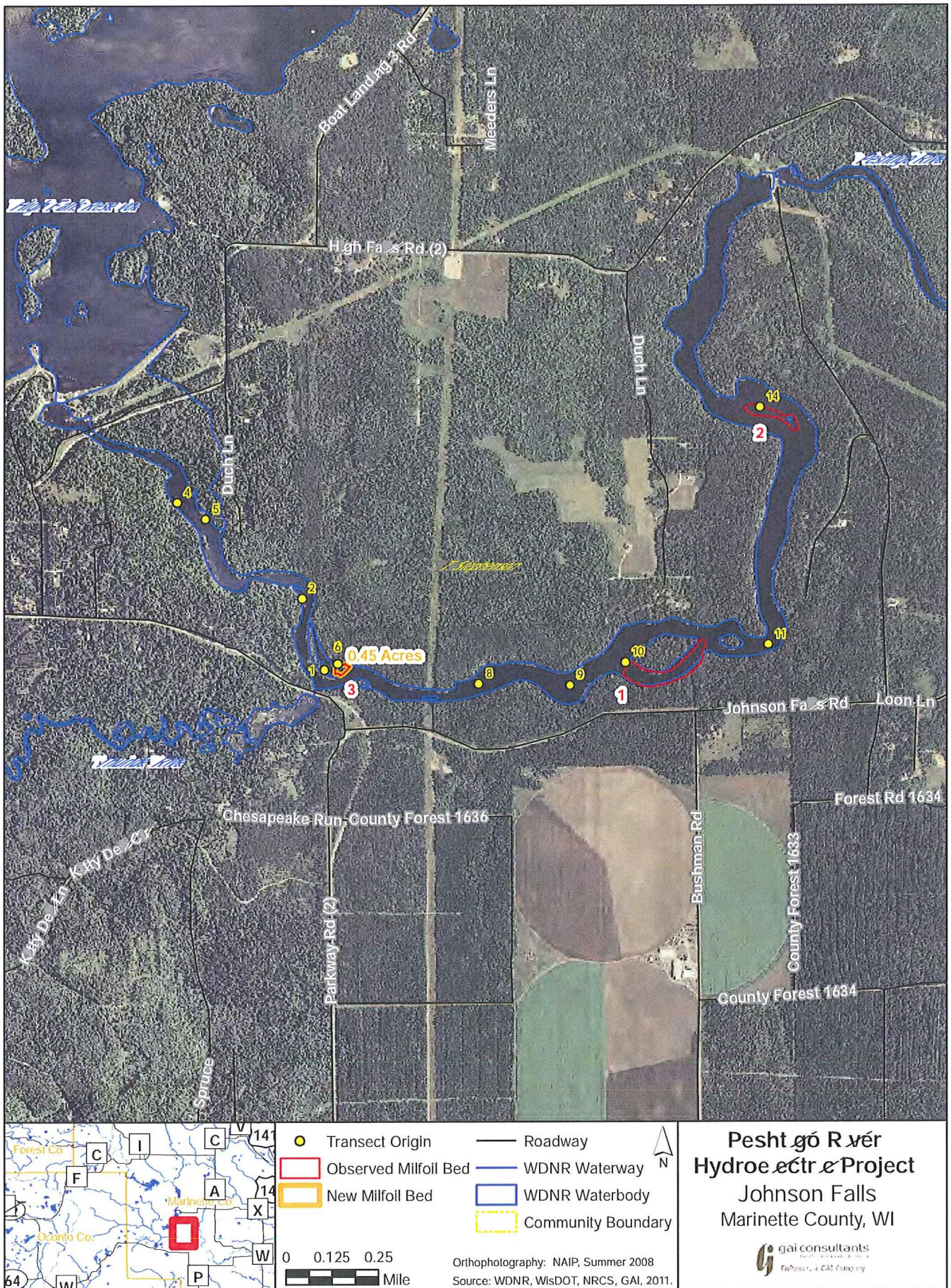
Orthophotography: NAIP, Summer 2010  
 Source: WDNR, WisDOT, NRCS, GAI, 2011.

**Peshtigo River  
 Hydroelectric Project  
 Potato Rapids  
 Marinette County, WI**

**gai consultants**  
 Environmental & Civil Engineering

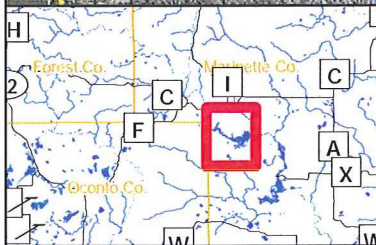
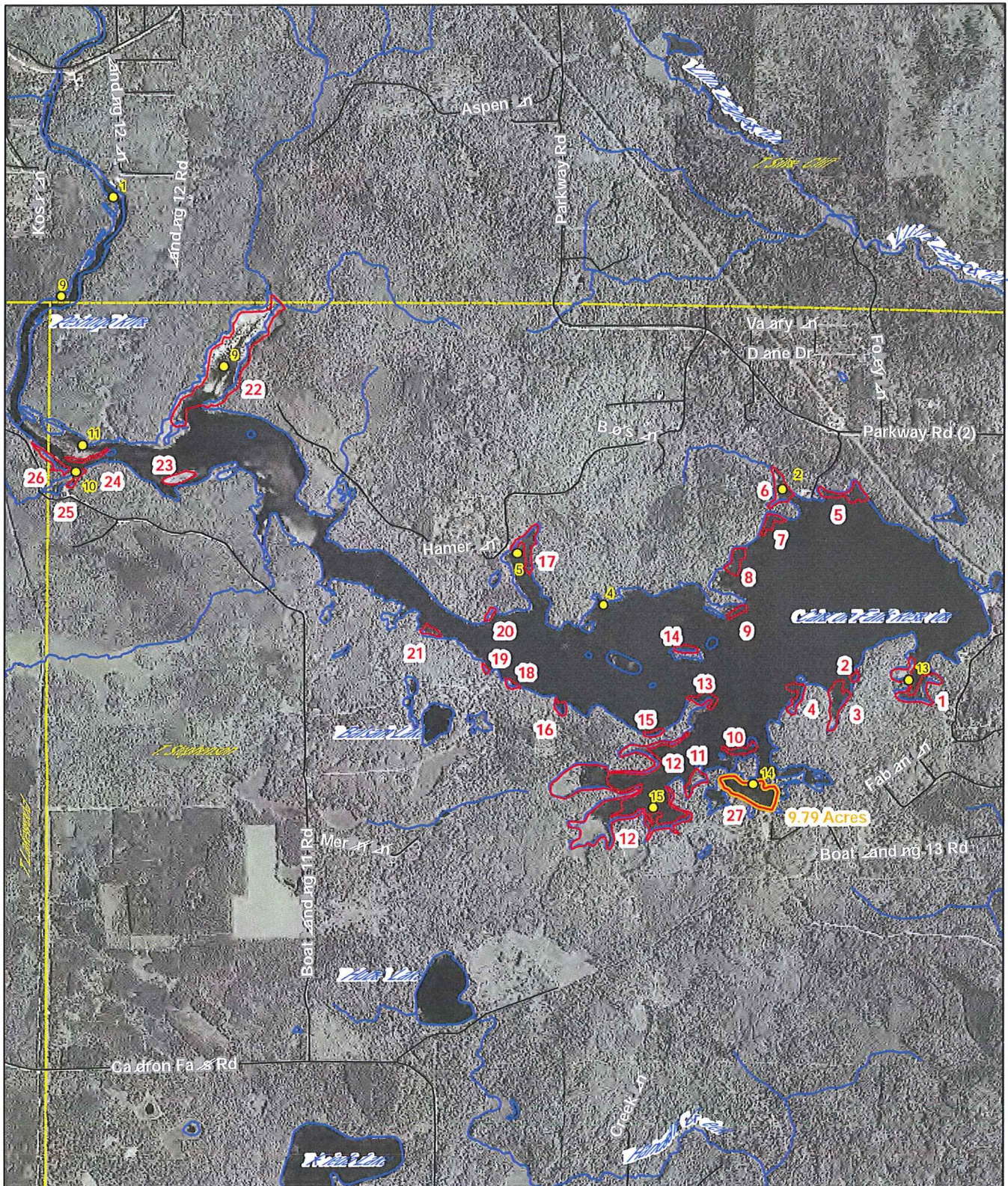
Eurasian Milfoil Survey - July 21, 2011				
Potato Rapids, Marinette County, Wisconsin				
Transect #	0 - 0.5 M	0.5 - 1.5 M	1.5 - 3.0 M	> 3.0 M
1A	0	1	NA	NA
1B	1	2	NA	NA
1C	1	1	NA	NA
2A	NA	0	0	NA
2B	NA	0	0	NA
2C	NA	0	0	NA
3A	0	0	NA	NA
3B	2	2	NA	NA
3C	1	0	0	NA
4A	0	0	NA	NA
4B	1	1	NA	NA
4C	1	1	NA	NA
5A	0	0	0	NA
5B	1	1	0	NA
5C	1	0	0	NA
6A	1	0	NA	NA
6B	1	1	NA	NA
6C	0	1	NA	NA
7A	0	0	NA	NA
7B	1	0	NA	NA
7C	1	0	NA	NA
8A	0	0	NA	NA
8B	0	0	NA	NA
8C	1	0	NA	NA
9A	1	0	NA	NA
9B	0	0	NA	NA
9C	0	0	NA	NA
10A	1	1	NA	NA
10B	0	0	NA	NA
10C	0	0	NA	NA

Abundance Scale	
0	Absent
1	Present
2	Abundance Less than Half
3	Equal Presence Compared to Other Species
4	Dominant Species
5	Total Infestation



Eurasian Milfoil Survey - July 19, 2011				
Johnson Falls, Marinette County, Wisconsin				
Transect #	0 - 0.5 M	0.5 - 1.5 M	1.5 - 3.0 M	> 3.0 M
1A	1	NA	NA	NA
1B	0	NA	NA	NA
1C	1	NA	NA	NA
2A	0	NA	NA	NA
2B	0	NA	NA	NA
2C	0	0	NA	NA
4A	0	NA	NA	NA
4B	0	0	NA	NA
4C	0	0	NA	NA
5A	0	NA	NA	NA
5B	0	NA	NA	NA
5C	1	NA	NA	NA
6A	1	NA	NA	NA
6B	0	NA	NA	NA
6C	0	NA	NA	NA
8A	0	0	0	NA
8B	0	0	0	NA
8C	0	0	0	NA
9A	0	0	0	NA
9B	0	0	0	NA
9C	0	0	0	NA
10A	1	0	NA	NA
10B	1	0	NA	NA
10C	1	0	NA	NA
11A	0	0	NA	NA
11B	0	0	NA	NA
11C	0	0	0	NA
14A	0	0	NA	NA
14B	0	0	NA	NA
14C	0	0	NA	NA

Abundance Scale	
0	Absent
1	Present
2	Abundance Less than Half
3	Equal Presence Compared to Other Species
4	Dominant Species
5	Total Infestation



Transect Origin	Roadway
Observed Milfoil Bed	WDNR Waterway
New Milfoil Bed	WDNR Waterbody
	Community Boundary

0 0.25 0.5  
Mile

Orthophotography: NAIP, Summer 2010  
Source: WDNR, WisDOT, NRCS, GAI, 2011.

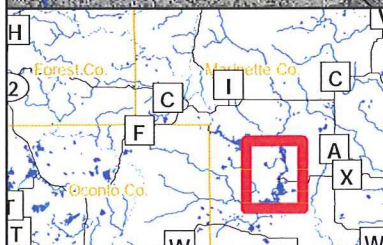
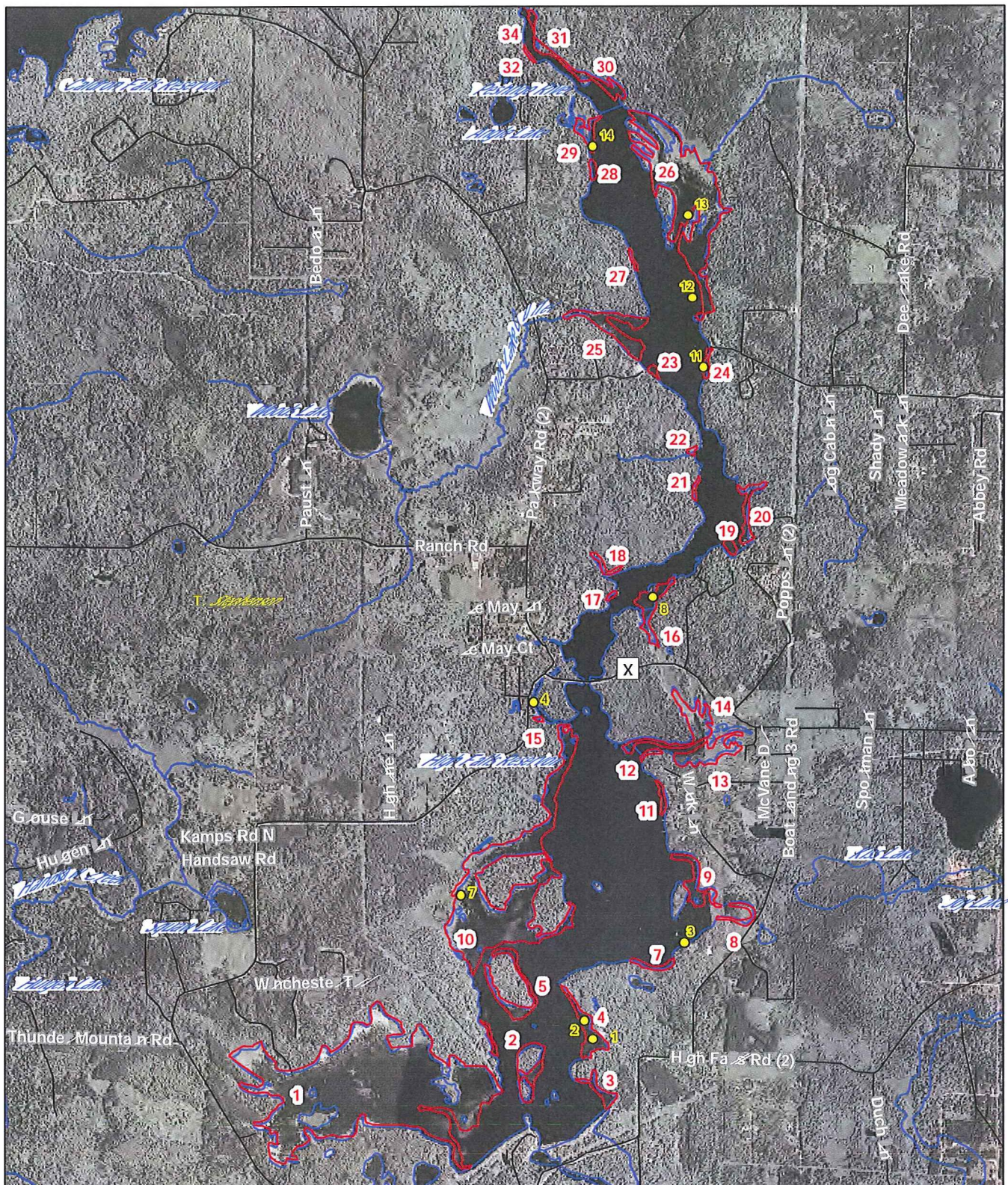
**Peshigo River Hydroelectric Project**  
Caldron Falls  
Marinette County, WI

gai consultants  
a GAI Company



Eurasian Milfoil Survey - July 27, 2011				
Caldron Falls, Marinette County, Wisconsin				
Transect #	0 - 0.5 M	0.5 - 1.5 M	1.5 - 3.0 M	> 3.0 M
1A	0	0	NA	NA
1B	0	0	NA	NA
1C	0	0	NA	NA
2A	3	3	NA	NA
2B	3	2	12	NA
2C	3	2	12	NA
4A	1	0	NA	NA
4B	1	0	NA	NA
4C	2	1	1	NA
5A	1	1	NA	NA
5B	1	0	NA	NA
5C	1	1	NA	NA
8A	2	2	NA	NA
8B	2	1	NA	NA
8C	2	2	NA	NA
9A	0	0	NA	NA
9B	0	0	NA	NA
9C	0	0	NA	NA
10A	1	0	NA	NA
10B	3	3	0	NA
10C	1	1	1	NA
11A	1	1	1	NA
11B	0	1	1	NA
11C	0	0	1	NA
13A	2	2	2	NA
13B	1	1	3	NA
13C	2	3	2	NA
14A	1	2	3	NA
14B	1	2	3	NA
14C	3	4	4	NA
15A	0	0	NA	NA
15B	0	0	NA	NA
15C	1	1	NA	NA

Abundance Scale	
0	Absent
1	Present
2	Abundance Less than Half
3	Equal Presence Compared to Other Species
4	Dominant Species
5	Total Infestation



Transect Origin	Roadway
Observed Milfoil Bed	WDNR Waterway
	WDNR Waterbody
	Community Boundary

0 0.25 0.5  
Mile

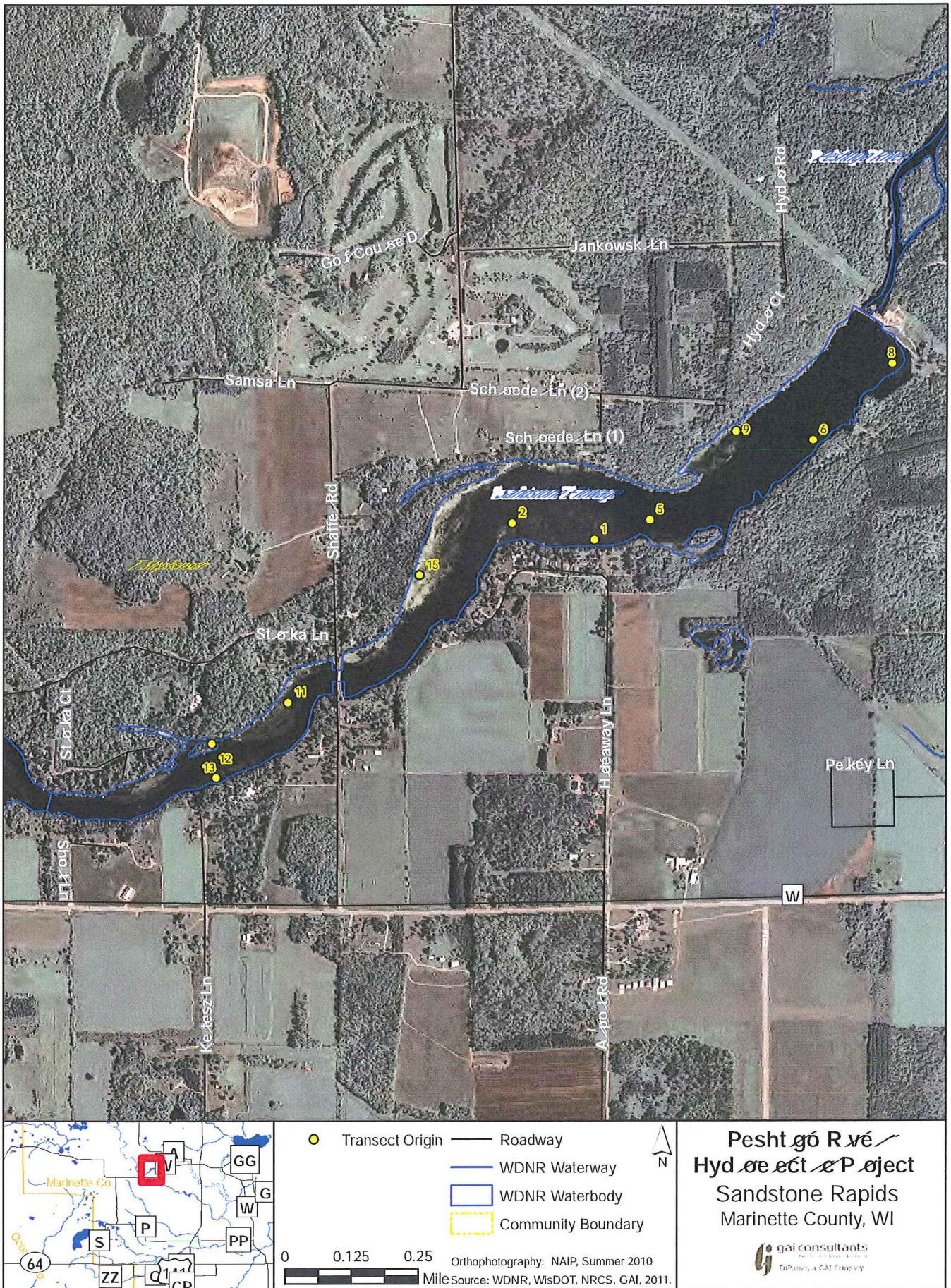
Orthophotography: NAIP, Summer 2010  
Source: WDNR, WisDOT, NRCS, GAI, 2011.

**Peshtigo River  
Hydroecological Project**  
High Falls  
Marinette County, WI

**gai consultants**  
Environmental & Construction  
Engineering & Construction

Eurasian Milfoil Survey - July 20, 2011				
High Falls, Marinette County, Wisconsin				
Transect #	0 - 0.5 M	0.5 - 1.5 M	1.5 - 3.0 M	> 3.0 M
1A	2	1	NA	NA
1B	2	2	NA	NA
1C	2	3	NA	NA
2A	1	1	NA	NA
2B	1	1	NA	NA
2C	1	1	NA	NA
3A	0	NA	NA	NA
3B	0	NA	NA	NA
3C	0	0	NA	NA
4A	2	NA	NA	NA
4B	2	2	NA	NA
4C	2	2	NA	NA
7A	3	3	3	NA
7B	3	3	3	NA
7C	3	3	3	NA
8A	0	0	NA	NA
8B	0	0	NA	NA
8C	0	0	0	NA
11A	0	0	NA	NA
11B	1	0	NA	NA
11C	0	1	NA	NA
12A	0	1	NA	NA
12B	1	0	NA	NA
12C	1	0	NA	NA
13A	1	1	NA	NA
13B	2	2	NA	NA
13C	2	2	NA	NA
14A	1	NA	NA	NA
14B	1	0	NA	NA
14C	0	0	NA	NA

Abundance Scale	
0	Absent
1	Present
2	Abundance Less than Half
3	Equal Presence Compared to Other Species
4	Dominant Species
5	Total Infestation



Eurasian Milfoil Survey - July 18, 2011				
Sandstone Flowage, Marinette County, Wisconsin				
Transect #	0 - 0.5 M	0.5 - 1.5 M	1.5 - 3.0 M	> 3.0 M
1A	0	0	NA	NA
1B	1	0	NA	NA
1C	1	0	0	NA
2A	NA	0	NA	NA
2B	NA	0	NA	NA
2C	NA	0	0	NA
5A	0	1	NA	NA
5B	2	0	NA	NA
5C	1	0	0	NA
6A	0	NA	NA	NA
6B	1	0	NA	NA
6C	1	0	0	NA
8A	0	NA	NA	NA
8B	1	NA	NA	NA
8C	1	2	NA	NA
9A	1	1	NA	NA
9B	1	2	NA	NA
9C	0	1	NA	NA
11A	0	0	NA	NA
11B	1	0	NA	NA
11C	1	0	NA	NA
12A	0	NA	NA	NA
12B	0	NA	NA	NA
12C	1	0	NA	NA
13A	1	NA	NA	NA
13B	0	1	NA	NA
13C	0	0	NA	NA
15A	1	0	NA	NA
15B	0	0	NA	NA
15C	0	1	NA	NA

Abundance Scale	
0	Absent
1	Present
2	Abundance Less than Half
3	Equal Presence Compared to Other Species
4	Dominant Species
5	Total Infestation

## APPENDIX C

# ZEBRA MUSSEL SURVEY RESULTS















## APPENDIX D

# DOCUMENTATION OF CONSULTATION



Wisconsin Public Service Corporation

700 North Adams Street

P.O. Box 19001

Green Bay, WI 54307-9001

September 15, 2011

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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Purple loosestrife was observed at the Peshtigo Hydroelectric Project. WPS again released *Galerucella* sp. beetles (beetles) at the Peshtigo Hydroelectric Project on July 12, 2011. WPS estimates that the total released was approximately 10,000 beetles.

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Additionally, an increase in beetle feeding was observed from the 2010 to the 2011 survey results. In 2010, feeding was observed at only 8 of the 25 sites. In 2011, feeding was observed at all 14 colonies. The success of the beetle feeding is even more significant when compared to the first year of beetle release in 2009, results from the 2009 survey indicated beetle feeding on only one site.

In addition, the overall plant vigor average for the purple loosestrife colonies was reduced from 10.6 in 2010 to 7.3 in 2011.

Mr. Utrup  
Page 2 of 2

WPS anticipates a continuing trend in the reduction of purple loosestrife colonies, colony size and overall plant vigor at the Peshtigo Hydroelectric Project.

The 2011 Peshtigo Hydroelectric Project purple loosestrife location map including colony location, identification number and the general plant vigor survey form are included in Appendix A.

A survey for EWM was completed for the Caldron Falls, High Falls, Johnson Falls, Sandstone Rapids and Potato Rapids Hydroelectric Projects from July 17<sup>th</sup> through July 27<sup>th</sup>, 2011 and for the Peshtigo Hydroelectric Project on August 4, 2011. EWM was identified as present in small populations (<1 acre) at the Peshtigo and Potato Rapids Projects. EWM populations at the Sandstone Rapids encompassed 21 acres scattered throughout the reservoir and 8 acres of EWM were observed at the Johnson Falls Project. Larger populations of EWM were identified at the High Falls (610 acres) and Caldron Falls Projects (148 acres). In comparison to the previous EWM survey completed in 2008, the populations have shown little change.

It is important to note that the acres included on the figures represent the boundary extent of where the EWM was identified. Within those acres are consists a variety of aquatic vegetation, in most cases EWM populations were identified at presence less than half when compared to the surrounding vegetation comprising the acreage.

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 2011 inspections. Even through zebra mussels where not observed on the substrate samplers, they have been observed and are present at the Peshtigo and Potato Hydroelectric Projects. Appendix C 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,



James Nuthals  
Environmental Services-  
Natural Resource Management

Enc.



Wisconsin Public Service Corporation

700 North Adams Street

P.O. Box 19001

Green Bay, WI 54307-9001

September 15, 2011

Mr. Michael Donofrio  
Wisconsin Department of Natural Resources  
Department of the Interior  
101 N Ogden Road  
Peshtigo WI 54157

Dear Mr. Donofrio:

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, Eurasian water milfoil (EWM) and zebra mussels.

Additionally, as per the Order Approving Supplement to Comprehensive Land and Wildlife Management Plan for the Peshtigo Hydroelectric Project (FERC Project No. 2581) issued on July 30, 2009, WPS is submitting an update on the 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 Hydroelectric Projects from July 17<sup>th</sup> through July 27<sup>th</sup>, 2011. No purple loosestrife was identified at Caldron Falls, High Falls, Johnson Falls or Sandstone Rapids projects. One small colony of purple loosestrife was observed at Potato Rapids. That colony was hand pulled. Appendix A includes a figure of the purple loosestrife colony located at Potato Rapids.

Purple loosestrife was observed at the Peshtigo Hydroelectric Project. WPS again released *Galerucella* sp. beetles (beetles) at the Peshtigo Hydroelectric Project on July 12, 2011. WPS estimates that the total released was approximately 10,000 beetles.

WPS completed a survey of the Peshtigo Project on August 4, 2011. The survey results indicated that the purple loosestrife colonies have been reduced from 25 colonies in 2010 to 20 colonies observed in 2011. In addition 6 of the 20 colonies observed in 2011 were hand pulled leaving a total of 14 colonies remaining on the project. Only one of the colonies recorded was a new colony.

Additionally, an increase in beetle feeding was observed from the 2010 to the 2011 survey results. In 2010, feeding was observed at only 8 of the 25 sites. In 2011, feeding was observed at all 14 colonies. The success of the beetle feeding is even more significant when compared to the first year of beetle release in 2009, results from the 2009 survey indicated beetle feeding on only one site.

In addition, the overall plant vigor average for the purple loosestrife colonies was reduced from 10.6 in 2010 to 7.3 in 2011.



Mr. Donofrio

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WPS anticipates a continuing trend in the reduction of purple loosestrife colonies, colony size and overall plant vigor at the Peshtigo Hydroelectric Project.

The 2011 Peshtigo Hydroelectric Project purple loosestrife location map including colony location, identification number and the general plant vigor survey form are included in Appendix A.

A survey for EWM was completed for the Caldron Falls, High Falls, Johnson Falls, Sandstone Rapids and Potato Rapids Hydroelectric Projects from July 17<sup>th</sup> through July 27<sup>th</sup>, 2011 and for the Peshtigo Hydroelectric Project on August 4, 2011. EWM was identified as present in small populations (<1 acre) at the Peshtigo and Potato Rapids Projects. EWM populations at the Sandstone Rapids encompassed 21 acres scattered throughout the reservoir and 8 acres of EWM were observed at the Johnson Falls Project. Larger populations of EWM were identified at the High Falls (610 acres) and Caldron Falls Projects (148 acres). In comparison to the previous EWM survey completed in 2008, the populations have shown little change.

It is important to note that the acres included on the figures represent the boundary extent of where the EWM was identified. Within those acres are consists a variety of aquatic vegetation, in most cases EWM populations were identified at presence less than half when compared to the surrounding vegetation comprising the acreage.

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 2011 inspections. Even through zebra mussels where not observed on the substrate samplers, they have been observed and are present at the Peshtigo and Potato Hydroelectric Projects. Appendix C 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,



James Nuthals  
Environmental Services-  
Natural Resource Management

Enc.

Appendix A, B & C were sent to the resource agencies, as included in this FERC report. In an effort to reduce document size, the appendices have not been included.

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