



**Wisconsin River Power Company**  
 (owners of the Petenwell & Castle Rock Hydroelectric Plants)  
 P.O. Box 19001  
 Green Bay, WI 54307-9001

December 20, 2019

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

Dear Ms. Bose:

**SUBJECT: Invasive Species Monitoring Plan – Purple Loosestrife and Eurasian Water Milfoil Report**

| <u>Hydro</u> | <u>FERC Project No.</u> | <u>NATDAM No.</u> | <u>License Article</u> |
|--------------|-------------------------|-------------------|------------------------|
| Petenwell    | 1984                    | WI00740           | 408                    |
| Castle Rock  | 1984                    | WI00724           | 408                    |

In accordance with the Federal Energy Regulatory Commission (FERC) Order Revising Order Approving Purple Loosestrife and Eurasian Watermilfoil Monitoring issued on July 13, 2005 and the Order Amending Purple Loosestrife Control Measures issued on July 9, 2009 for the Petenwell and Castle Rock Hydroelectric Projects, Wisconsin River Power Company (WRPCO) is to provide monitoring reports of the purple loosestrife (PL) and Eurasian water milfoil (EWM) surveys to FERC by December 31, each year a survey has been completed.

2019 Purple Loosestrife Survey Results

A survey for PL was completed on August 8 and 9, 2019. Thirty-three colonies of PL were identified at the Petenwell and Castle Rock Hydroelectric Projects. Of the thirty-three colonies, eight were small or medium sized colonies. The eight small to medium sized colonies were hand pulled and disposed of offsite. Appendix A includes the 2019 PL survey results.

In 2019, WPS released approximately 8,000 *Galerucella species* beetles in two different locations to supplement existing beetle populations. WRPCO observed beetle feeding on seventeen of the thirty-three colonies.

WRPCO will continue monitoring for PL and continue to release a minimum of 4,000 beetles in at least two separate locations as outlined in the Order Amending Purple Loosestrife Control Measures. The next PL survey is scheduled for 2020.

2019 Eurasian Water Milfoil Survey Results

As per the Plan, Eurasian Watermilfoil surveys are completed once every three years, with the next survey scheduled for 2021.

A copy of this report was submitted to the Wisconsin Department of Natural Resources (WDNR) and the US Fish and Wildlife Service (FWS) on October 29, 2019. The WDNR and FWS did not provide any comments. Appendix B includes the 2019 documentation of consultation.

Ms. Kimberly D. Bose  
December 20, 2019  
Page 2 of 2

Should you have any questions relative to this material, please do not hesitate to contact Jes Roloff at (920) 433-5558 or [Jessica.Roloff@WECEnergyGroup.com](mailto:Jessica.Roloff@WECEnergyGroup.com).

Sincerely,

A handwritten signature in blue ink that reads "Todd P. Jastremski". The signature is written in a cursive style with a long horizontal stroke at the beginning.

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

JRR/ace

Enc: Appendix A – 2019 Purple Loosestrife Survey Results – 8 pages  
Appendix B – 2019 Documentation of Consultation – 9 pages

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

**APPENDIX A**

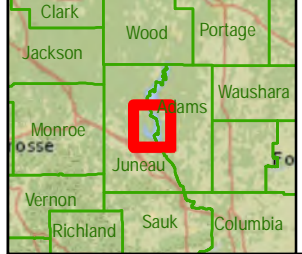
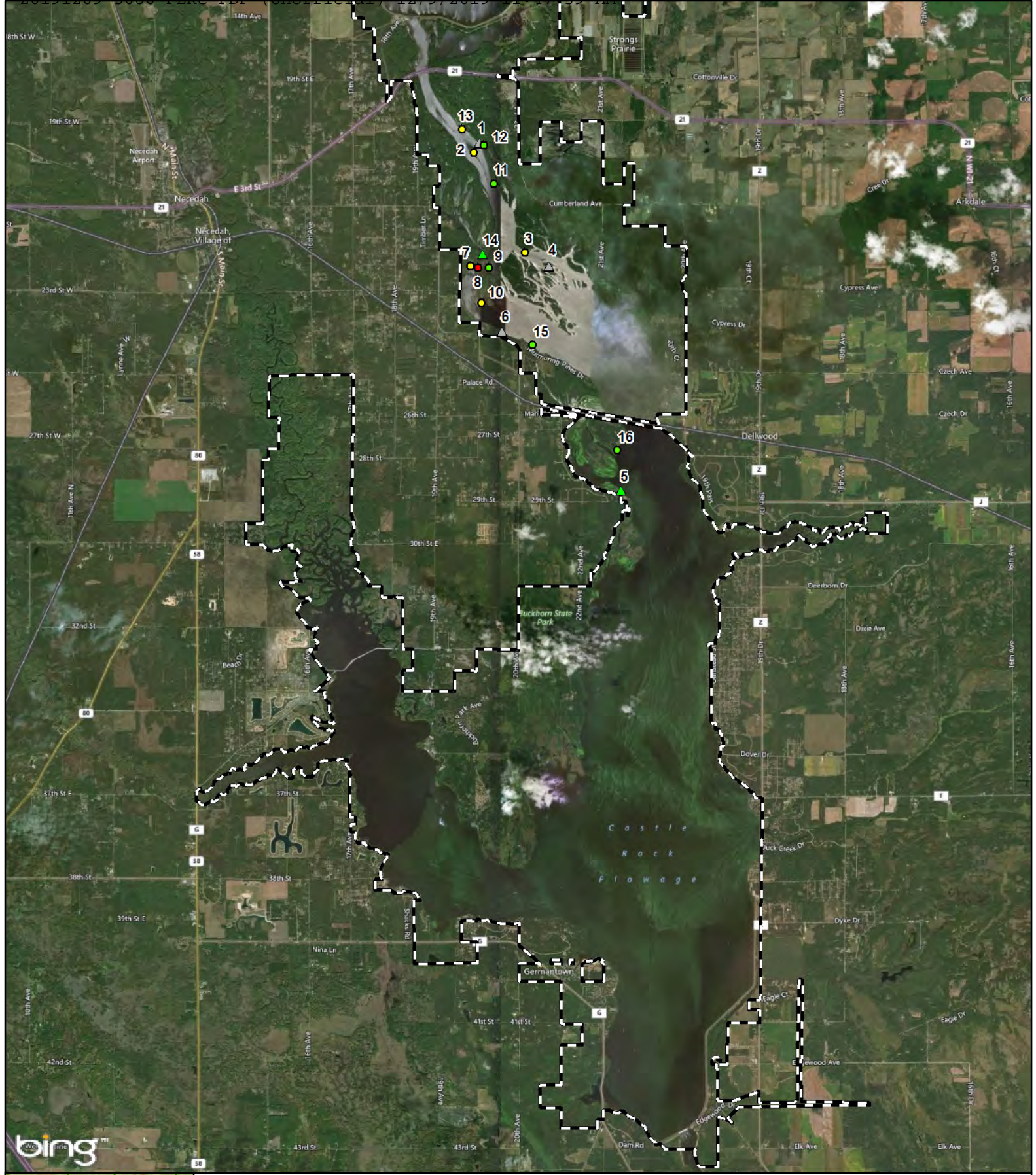
**2019 PURPLE LOOSESTRIFE SURVEY RESULTS**

## 2019 Purple Loosestrife Survey Form

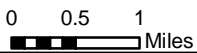
Hydroelectric project: Castle Rock Hydroelectric Project

Castle Rock Inspection date: August 8, 2019

| General Plant Vigor |   |  |   |   |  |                                  |           |
|---------------------|---|--|---|---|--|----------------------------------|-----------|
| Colony ID #         | Colony Size<br>S 0-5<br>M 6-50<br>L >50 | Plant Height<br>4 = >4ft<br>3 = 2-4ft<br>2 = 1-2ft<br>1 = <1ft | Plant Flowering<br>4 = 100% of plants<br>3 = 51-99% of plants<br>2 = 26-50% of plants<br>1 = <25% of plants | Beetle Feeding<br>5 = 0% feeding<br>4 = 1 - 25% feeding<br>3 = 26-50% feeding<br>2 = 51-75% feeding<br>1 = >76% feeding | Total Plant Vigor<br>10-12 = good<br>7-9 = fair<br>4-6 = poor<br>0-3 = very poor | Notes                            | GPS Point |
| 1                   | No Longer Able To Identify              |  |   |   |  |                                  |           |
| 2                   | M 6-50                                  | 4  | 2   | 5   | 11   |                                  | 1876      |
| 3                   | M 6-50                                  | 3  | 3   | 5   | 11   |                                  | 1906      |
| 4                   | No Longer Able To Identify              |  |   |   |  |                                  |           |
| 5                   | S 0-5                                   | 3  | 3   | 5   | 11   | Came back.<br>Picked all plants. | 1994      |
| 6                   | No Longer Able To Identify              |  |   |   |  |                                  |           |
| 7                   | M 6-50                                  | 3  | 3   | 5   | 11   |                                  | 1907      |
| 8                   | L >50                                   | 4  | 3   | 4   | 11   |                                  | 1874      |
| 9                   | S 0-5                                   | 2  | 2   | 4   | 8  |                                  |           |
| 10                  | M 6-50                                  | 3  | 3   | 5   | 11   | NEW.                             | 1987      |
| 11                  | S 0-5                                   | 2  | 3   | 5   | 10   | NEW.                             | 1988      |
| 12                  | S 0-5                                   | 2  | 2   | 5   | 9  | NEW. Picked all<br>plants.       | 1989      |
| 13                  | M 6-50                                  | 3  | 3   | 5   | 11   | NEW.                             | 1990      |
| 14                  | S 0-5                                   | 2  | 2   | 4   | 8  | NEW. Picked all<br>plants.       | 1991      |
| 15                  | S 0-5                                   | 3  | 3   | 5   | 11   | NEW.                             | 1992      |
| 16                  | S 0-5                                   | 3  | 3   | 4   | 10   | NEW.                             | 1993      |



## WRPCO Castle Rock Hydroelectric Project Purple Loosestrife Survey 2019



- |                           |                            |
|---------------------------|----------------------------|
| Project Boundary          | Medium                     |
| <b>Purple Loosestrife</b> | Large                      |
| Small                     | No Longer Able To Identify |
| Small/Pulled              |                            |

## 2019 Purple Loosestrife Survey Form

Hydroelectric project: Petenwell Hydroelectric Project

Beetle Release Date: July 3, 2019

Petenwell Inspection date: August 9, 2019

| General Plant Vigor |   |  |   |   |  |                         |                         |
|---------------------|---|--|---|---|--|-------------------------|-------------------------|
| Colony ID #         | Colony Size<br>S 0-5<br>M 6-50<br>L >50 | Plant Height<br>4 = >4ft<br>3 = 2-4ft<br>2 = 1-2ft<br>1 = <1ft | Plant Flowering<br>4 = 100% of plants<br>3 = 51-99% of plants<br>2 = 26-50% of plants<br>1 = <25% of plants | Beetle Feeding<br>5 = 0% feeding<br>4 = 1 - 25% feeding<br>3 = 26-50% feeding<br>2 = 51-75% feeding<br>1 = >76% feeding | Total Plant Vigor<br>10-12 = good<br>7-9 = fair<br>4-6 = poor<br>0-3 = very poor | Notes                   | GPS Point               |
| 1                   | No Longer Able To Identify              |  |   |   |  |                         | 1092 (old point)        |
| 2                   | L >50                                   | 4  | 3   | 4   | 11   | Released 4,000 beetles. | 1649                    |
| 3                   | No Longer Able To Identify              |  |   |   |  |                         | 1109 & 1091 (old point) |
| 4                   | S 0-5                                   | 4  | 3   | 5   | 12   | Pulled all plants.      | 1980                    |
| 5                   | No Longer Able To Identify              |  |   |   |  |                         | 930 (old point)         |
| 6                   | M 6-50                                  | 3  | 2   | 4   | 9  |                         | 1644                    |
| 7                   | No Longer Able To Identify              |  |   |   |  |                         | 1096 (old point)        |
| 8                   | S 0-5                                   | 2  | 3   | 2   | 7  | Released 4,000 beetles. | 1643                    |
| 9                   | M 6-50                                  | 2  | 2   | 4   | 8  |                         | Did not GPS             |
| 10                  | No Longer Able To Identify              |  |   |   |  |                         | 924 (old point)         |
| 11                  | M 6-50                                  | 3  | 2   | 2   | 7  |                         | 1640                    |
| 12                  | L >50                                   | 4  | 3   | 4   | 11   |                         | 1641                    |
| 13                  | L >50                                   | 3  | 3   | 4   | 10   |                         | 1638                    |
| 14                  | No Longer Able To Identify              |  |   |   |  |                         | 1099 (old point)        |
| 15                  | No Longer Able To Identify              |  |   |   |  |                         | 1637                    |
| 16                  | S 0-5                                   | 3  | 3   | 4   | 10   | Pulled all plants.      | 1648                    |

## 2019 Purple Loosestrife Survey Form

Hydroelectric project: Petenwell Hydroelectric Project

Beetle Release Date: July 3, 2019

Petenwell Inspection date: August 9, 2019

| General Plant Vigor |   |  |   |   |  |                    |           |
|---------------------|---|--|---|---|--|--------------------|-----------|
| Colony ID #         | Colony Size<br>S 0-5<br>M 6-50<br>L >50 | Plant Height<br>4 = >4ft<br>3 = 2-4ft<br>2 = 1-2ft<br>1 = <1ft | Plant Flowering<br>4 = 100% of plants<br>3 = 51-99% of plants<br>2 = 26-50% of plants<br>1 = <25% of plants | Beetle Feeding<br>5 = 0% feeding<br>4 = 1 - 25% feeding<br>3 = 26-50% feeding<br>2 = 51-75% feeding<br>1 = >76% feeding | Total Plant Vigor<br>10-12 = good<br>7-9 = fair<br>4-6 = poor<br>0-3 = very poor | Notes              | GPS Point |
| 17                  | S 0-5                                   | 4  | 3   | 5   | 12   | Pulled all plants. | 1647      |
| 18                  | S 0-5                                   | 4  | 2   | 4   | 10   | Pulled all plants. | 1646      |
| 19                  | No Longer Able to Identify              |  |   |   |  |                    | 1645      |
| 20                  | S 0-5                                   | 3  | 3   | 4   | 10   | Pulled all plants. | 1642      |
| 21                  | No Longer Able to Identify              |  |   |   |  |                    | 1639      |
| 22                  | No Longer Able to Identify              |  |   |   |  |                    | 1636      |
| 23                  | M 6-50                                  | 3  | 3   | 4   | 10   |                    | 1635      |
| 24                  | No Longer Able to Identify              |  |   |   |  |                    | 1634      |
| 25                  | No Longer Able to Identify              |  |   |   |  |                    | 1633      |
| 26                  | No Longer Able to Identify              |  |   |   |  |                    | 1632      |
| 27                  | No Longer Able to Identify              |  |   |   |  |                    | 1631      |
| 28                  | No Longer Able to Identify              |  |   |   |  |                    | 1629      |
| 29                  | No Longer Able to Identify              |  |   |   |  |                    | 1650      |
| 30                  | No Longer Able to Identify              |  |   |   |  |                    | 1955      |
| 31                  | No Longer Able to Identify              |  |   |   |  |                    | 1956      |
| 32                  | No Longer Able to Identify              |  |   |   |  |                    | 1957      |

## 2019 Purple Loosestrife Survey Form

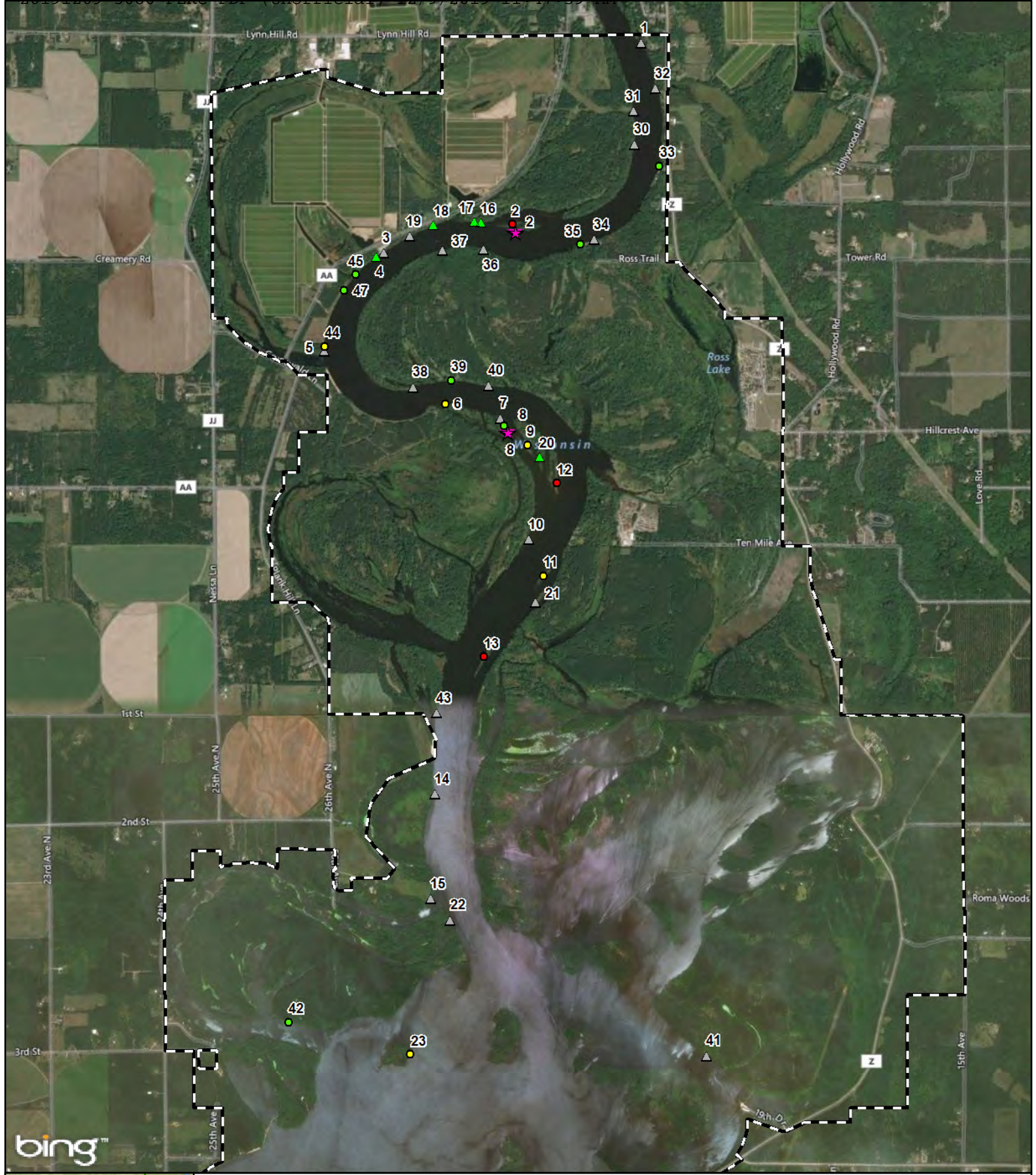
Hydroelectric project: Petenwell Hydroelectric Project

Beetle Release Date: July 3, 2019

Petenwell Inspection date: August 9, 2019

| General Plant Vigor |   |  |   |   |  |               |           |
|---------------------|---|--|---|---|--|---------------|-----------|
| Colony ID #         | Colony Size<br>S 0-5<br>M 6-50<br>L >50 | Plant Height<br>4 = >4ft<br>3 = 2-4ft<br>2 = 1-2ft<br>1 = <1ft | Plant Flowering<br>4 = 100% of plants<br>3 = 51-99% of plants<br>2 = 26-50% of plants<br>1 = <25% of plants | Beetle Feeding<br>5 = 0% feeding<br>4 = 1 - 25% feeding<br>3 = 26-50% feeding<br>2 = 51-75% feeding<br>1 = >76% feeding | Total Plant Vigor<br>10-12 = good<br>7-9 = fair<br>4-6 = poor<br>0-3 = very poor | Notes         | GPS Point |
| 33                  | S 0-5                                   | 3  | 3   | 5   | 11   | Private Prop. | 1958      |
| 34                  | No Longer Able to Identify              |  |   |   |  |               | 1959      |
| 35                  | S 0-5                                   | 3  | 3   | 5   | 11   | Private Prop. | 1960      |
| 36                  | No Longer Able to Identify              |  |   |   |  |               | 1961      |
| 37                  | No Longer Able to Identify              |  |   |   |  |               | 1962      |
| 38                  | No Longer Able to Identify              |  |   |   |  |               | 1963      |
| 39                  | S 0-5                                   | 4  | 3   | 5   | 12   |               | 1964      |
| 40                  | No Longer Able to Identify              |  |   |   |  |               | 1965      |
| 41                  | No Longer Able to Identify              |  |   |   |  |               | 1971      |
| 42                  | S 0-5                                   | 3  | 3   | 5   | 11   |               | 1974      |
| 43                  | No Longer Able to Identify              |  |   |   |  |               | 1976      |
| 44                  | M 6-50                                  | 4  | 2   | 3   | 9  |               | 1978      |
| 45                  | M 6-50                                  | 4  | 3   | 4   | 11   |               | 1979      |
| 46                  | Combined with colony #4                 |  |   |   |  |               | 1980      |
| 47                  | S 0-5                                   | 3  | 3   | 5   | 11   | NEW.          | 1997      |

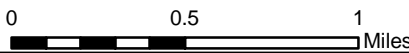




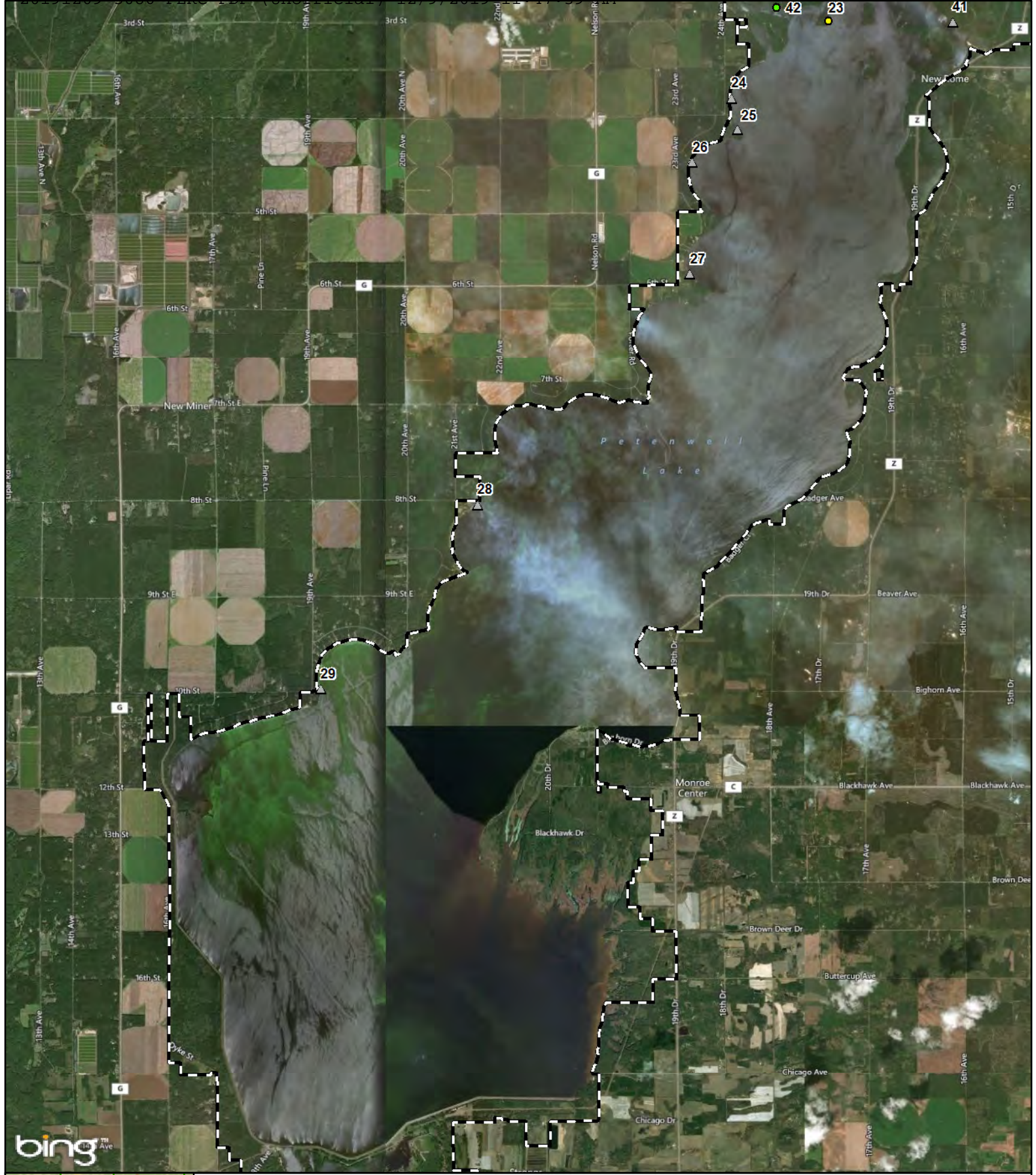
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### WRPCO North Petenwell Hydroelectric Project Purple Loosestrife Survey 2019

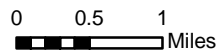
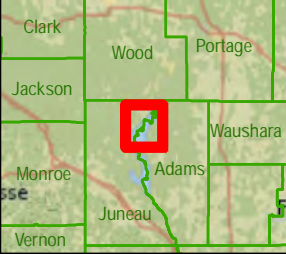


- Project Boundary
- Medium
- Large
- Small
- Small/Pulled
- No Longer Able To Identify
- Beetle Release Site



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# WRPCO South Petenwell Hydroelectric Project Purple Loosestrife Survey 2019



- Project Boundary
- Medium
- Small
- No Longer Able To Identify

**APPENDIX B**

**2019 DOCUMENTATION OF CONSULTATION**



**Wisconsin River Power Company**  
 (owners of the Petenwell & Castle Rock Hydroelectric Plants)  
 P.O. Box 19001  
 Green Bay, WI 54307-9001

October 29, 2019

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

Dear Ms. Laatsch:

**SUBJECT: Invasive Species Monitoring Plan – Purple Loosestrife and Eurasian Water Milfoil Report**

| <u>Hydro</u> | <u>FERC Project No.</u> | <u>NATDAM No.</u> | <u>License Article</u> |
|--------------|-------------------------|-------------------|------------------------|
| Petenwell    | 1984                    | WI00740           | 408                    |
| Castle Rock  | 1984                    | WI00724           | 408                    |

In accordance with the Federal Energy Regulatory Commission (FERC) Order Revising Order Approving Purple Loosestrife and Eurasian Watermilfoil Monitoring issued on July 13, 2005 and the Order Amending Purple Loosestrife Control Measures issued on July 9, 2009 for the Petenwell and Castle Rock Hydroelectric Projects, Wisconsin River Power Company (WRPCO) is to provide monitoring reports of the purple loosestrife (PL) and Eurasian water milfoil (EWM) 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.

2019 Purple Loosestrife Survey Results

A survey for PL was completed on August 8 and 9, 2019. Thirty-three colonies of PL were identified at the Petenwell and Castle Rock Hydroelectric Projects. Of the thirty-three colonies, eight were small or medium sized colonies. The eight small to medium sized colonies were hand pulled and disposed of offsite. Appendix A includes the 2019 PL survey results.

In 2019, WPS released approximately 8,000 *Galerucella species* beetles in two different locations to supplement existing beetle populations. WRPCO observed beetle feeding on seventeen of the thirty-three colonies.

WRPCO will continue monitoring for PL and continue to release a minimum of 4,000 beetles in at least two separate locations as outlined in the Order Amending Purple Loosestrife Control Measures. The next PL survey is scheduled for 2020.

2019 Eurasian Water Milfoil Survey Results

As per the Plan, Eurasian Watermilfoil surveys are completed once every three years, with the next survey scheduled for 2021.

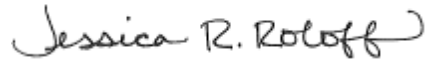
Ms. Cheryl Laatsch

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Page 2 of 2

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 [Jessica.Roloff@WECEnergyGroup.com](mailto:Jessica.Roloff@WECEnergyGroup.com).

Sincerely,

A handwritten signature in black ink that reads "Jessica R. Roloff". The signature is written in a cursive style with a large, sweeping initial "J".

Jes Roloff

Environmental Consultant

Wisconsin River Power Company

700 North Adams Street

Green Bay, WI 54301

Enc: Appendix A – 2019 Purple Loosestrife Survey Results

Cc: Mr. Nicholas Utrup, USFWS

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

**NO COMMENTS RECEIVED BY THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES**



Wisconsin River Power Company  
 (owners of the Petenwell & Castle Rock Hydroelectric Plants)  
 P.O. Box 19001  
 Green Bay, WI 54307-9001

October 29, 2019

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

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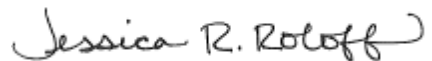
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Mr. Utrup  
October 29, 2019  
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Jes Roloff  
Environmental Consultant  
Wisconsin River Power Company  
700 North Adams Street  
Green Bay, WI 54301

Enc: Appendix A – 2019 Purple Loosestrife Survey Results

Cc: Ms. Cheryl Laatsch, WDNR

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

**NO COMMENTS RECEIVED BY THE US FISH AND WILDLIFE SERVICE**

Document Content(s)

|          |       |      |                     |       |
|----------|-------|------|---------------------|-------|
| 20191220 | WRPCO | FERC | PLEWM.PDF.....      | 1-2   |
| 20191220 | WRPCO | FERC | Appendix A.PDF..... | 3-10  |
| 20191220 | WRPCO | FERC | Appendix B.PDF..... | 11-19 |