



January 31, 2019

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, DC 20426

**RE: Flambeau Upper FERC Project Number 2640
Flambeau Hydro LLC
Final Report 2018 Purple Loosestrife Inventory Report**

Dear Ms. Bose:

On behalf of Flambeau Hydro LLC, "Flambeau" (Licensee), Renewable World Energies, LLC (RWE) is submitting a copy of the *Final Report 2018 Purple Loosestrife Inventory Report* for the Flambeau Upper Hydroelectric Project. The report is a requirement of Flambeau's Federal license pursuant to article 412. Monitoring was conducted on August 21, 2018. No out of the ordinary issues were encountered. The draft report was sent to the agencies by an attachment to an e-mail on November 30, 2018 for review and comment. We did receive comments from Cheryl Laatsch of the DNR about standardizing the Purple Loosestrife reporting with a form created by the DNR, characterizing site conditions and observing for other AIS. A conference call was attempted to be set up, but schedules have not allowed time for it yet. No comments have been received from the USFWS. The next scheduled monitoring event will be conducted in 2019.

If you have any questions concerning this submittal, please contact Brian Kreuzscher at the Renewable World Energies, LLC offices @ 855-994-9376 Ext 230. He can also be reached by e-mail at bkreuscher@rwehydro.com.

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P.O. Box 264
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Sincerely,
Renewable World Energies, LLC
Agent for Licensee

A handwritten signature in black ink, appearing to read "Jason Kreuzscher".

For
Mr. Jason Kreuzscher
Vice President

Attachment: Flambeau Upper Final Purple Loosestrife Inventory Report
Correspondence

Cc: Ms. Cheryl Laatsch, WDNR
Mr. Nick Utrup, USFWS
RWE, Corporate

2018 Purple Loosestrife Inventory
for
Flambeau Upper Hydroelectric Project
FERC Project #2640
Flambeau Hydro, LLC
Price County, Wisconsin

Submitted by:



429 River Lane, P.O. Box 27
Amasa, Michigan 49903
Phone: 906-822-7889

Summary of Purple Loosestrife Inventory for Flambeau Upper Hydroelectric Project, FERC #2640

On August 21, 2018, White Water Associates, Inc. performed an inventory of purple loosestrife at the Flambeau Upper Project. The method of inventory approved and modified by a Federal Energy Regulatory Commission (FERC) Order (June 18, 2003) was defined as follows:

While purple loosestrife is blooming in mid-July to early August, the inventory should be conducted using a boat to survey the impoundment above the dam within the Project Boundary and on foot or by boat below the dam within the Project Boundary. County wetland maps may be used to determine other areas where Purple Loosestrife could be found on lands owned by Flambeau Hydro, LLC (FHLLC) within the Project Boundary. Lands owned by FHLLC within the Project Boundary will be surveyed on foot. A pair of binoculars should be used to search for the purple flowered spikes of the plant. When plants are located, the person(s) inventorying should get close enough to make a positive identification without disturbing the plants or the immediate area around the plants as this could cause them to spread. A GPS will be used to establish a GPS coordinate for the location of the plants. If it is not possible to get close enough to establish an accurate location, an approximate location will be established with reference to an established GPS coordinate. The plants should be inventoried by marking and numbering the location on a project map along with notes approximating size of plants, stand area, percent cover, stem density, plant density, and location with reference to established GPS coordinates. Photos and/or videotape will be taken of the largest occurrences.

2018 Observations

The Flambeau Upper Project boundary was divided into three different areas; *the impoundment* (from just downstream to the last rapids before the impoundment to the dam), *the power canal/bypassed reach* (the power canal from the dam to the powerhouse, and the bypassed reach area from the dam to the single lane service bridge just upstream of the HWY 182 bridge), and *the tailrace* (from the single lane service bridge just upstream of the HWY 182 bridge to the HWY 182 bridge).

The impoundment was surveyed by boat and no purple loosestrife plants were found.

The power canal/bypassed reach was surveyed on foot no purple loosestrife plant was found.

The tailrace was surveyed by boat and no purple loosestrife plants were observed.

Appendix A provides tables of historical purple loosestrife data as well as observations made in 2018. Appendix B provides scans of field data sheets.

Appendix A

Tables

Table 1. GPS points for purple loosestrife inventory at Flambeau Upper, FERC#2640.					
<i>GPS Point</i>	<i>Latitude</i>	<i>Longitude</i>	<i>Plant Height</i>	<i>Stand Area</i>	<i>Comments</i>
FLUPPL001	45.94678	-90.43405	N/A	N/A	2002-first observed. 15-25 plants. 2003-discovered plants were not purple loosestrife but winged loosestrife. 2004-plants removed. 2007-reoccurrence of plants. 2008-2015- no plants observed. 2016-no plants observed. 2017-no plants observed. 2018-no plants observed
FLUPPL002	45.93593	-90.44344	N/A	N/A	2006-first observed. 2007-plants observed. 2008-2015-no plants observed. 2016-no plants observed. 2017-no plants observed. 2018-no plants observed.
FLUPPL003 (FLUP PLA)	45.93397	-90.44525	3'	1'x1'	2016-first observed. 1 plant was observed and pulled 2017-1 plant observed and removed. 2018- no plant observed.

Appendix B

Data Sheets

Purple Loosestrife Survey

Upper Flambeau Hydroelectric Project – FERC #2640

Page 1 of 2

Date 8-21-18 Conducted By Stine A. R. Warmboe

HWL 148.6 TWL 167.0 CFS 582 Equipment Used: Binoculars, GPS, Camera

Air Temp: 58° Wind Speed: 17 mph Barometer: 30 Sky Conditions: _____

Time Survey Started 8:05 Time Survey Ended 9:40 Boat (14ft) and/or Foot

Latitude Start BL Longitude End _____

Location of Survey Area: Tailrace _____ Bypass Reach _____ Impoundment X FHLIC Property _____

Description of Location _____

Historic Info: _____

Purple Loosestrife Found: Yes or (No)

Information					
Site					
Time					
Photo ID					
Location					
Single or Multi-stem					
# of Plants					
Acreage est.					
Stand Area Density					
Size Colony					
S=0-5, M=6-50, L=>50~					
Plant Height ~ Ft					
Flowering %					
Beetle Feeding?					
Plant Vigor (Very poor to good)					
Plant Removed (explain)					

Information					
Site					
Time					
Photo ID					
Location					
Single or Multi-stem					
# of Plants					
Acreage est.					
Stand Area Density					
Size Colony					
S=0-5, M=6-50, L=>50~					
Plant Height ~ Ft					
Flowering %					
Beetle Feeding?					
Plant Vigor (Very poor to good)					
Plant Removed (explain)					

Other Species Observed:

Purple Loosestrife Survey

Hambrae Upper Hydroelectric Project – FERC # 2440 Page 2 of 2

Date 8-2-18 Conducted By Stine Wambor

HWL 146.9 TWL 147.0 CFS 582 Equipment Used: Binoculars, GPS camera

Air Temp: _____ °C Wind Speed: _____ Barometer: _____ Sky Conditions: 100% clouds

Time Survey Started 7:15 Time Survey Ended 9:35 Boat (14ft or Canoe) and/or (Foot)

Latitude Start: _____ Longitude End: _____

Location of Survey Area: Tailrace Bypass Reach Impoundment _____ FHLLC Property

Description of Location _____

Historic Info: _____

Purple Loosestrife Found: Yes or No

Information					
Site					
Time					
Photo ID					
Location					
Single or Multi-stem					
# of Plants					
Acreage est.					
Stand Area Density					
Size Colony S=0-5, M=6-50, L=>50~					
Plant Height ~ Ft					
Flowering %					
Beetle Feeding?					
Plant Vigor (Very poor to good)					
Plant Removed (explain)					

Information					
Site					
Time					
Photo ID					
Location					
Single or Multi-stem					
# of Plants					
Acreage est.					
Stand Area Density					
Size Colony S=0-5, M=6-50, L=>50~					
Plant Height ~ Ft					
Flowering %					
Beetle Feeding?					
Plant Vigor (Very poor to good)					
Plant Removed (explain)					

Plants Observed:

Brian Kreuscher

From: Laatsch, Cheryl - DNR <Cheryl.Laatsch@wisconsin.gov>
Sent: Monday, December 03, 2018 11:59 AM
To: Brian Kreuscher; Nick Utrup
Cc: Wirt, Alan W - DNR; Mushel, Joelle A - DNR
Subject: RE: Crowley (P-2473) Pixley (P-2395) Upper (P-2640) Lower (P-2421) 2017 Purple Loosestrife Draft Reports

Hi Brian – Thanks for the AIS Reports. Staff have reviewed the reports and we offer the following comments. We would like to have a conf call with you and Whitewater to go over a few things in the report, and offer suggestions to streamline the reporting process/forms.

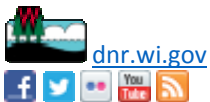
1. In review of all 4 project areas, we noticed some inconsistent approaches to PL management. We would like to discuss a more consistent approach to PL mgt.
2. Some of the comments (ex. Out or reach) are very subjective and difficult to interpret. Lets discuss options to better characterize site conditions.
3. We would like to discuss using a standard DNR form for the PL reporting. It is very user friendly, and would simplify your reporting requirements.
4. Other AIS reporting – we would like to ask that other obvious AIS observations be reported to the DNR, using the standard forms. We ask that this effort be outside of the FERC license process, as a partner on early detection of AIS species. We can discuss more during our conf call.

Please provide me with some dates and times that we can discuss your reports. Thanks

We are committed to service excellence.

Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

Cheryl Laatsch
Statewide FERC Coordinator
Bureau of Environmental Analysis and Sustainability
Wisconsin Dept of Natural Resources
N7725 Hwy 28
Horicon WI 53032
(T) 920-387-7869 (Fax) 920-387-7888
Cheryl.laatsch@wisconsin.gov



From: Brian Kreuscher <bkreuscher@rwehydro.com>
Sent: Friday, November 30, 2018 6:06 PM
To: Laatsch, Cheryl - DNR <Cheryl.Laatsch@wisconsin.gov>; Nick Utrup <nick_utrup@fws.gov>
Subject: Crowley (P-2473) Pixley (P-2395) Upper (P-2640) Lower (P-2421) 2017 Purple Loosestrife Draft Reports

Cheryl and Nick,

Attached are copies of the Purple Loosestrife Draft Reports for the surveys conducted at Flambeau Upper (P-2640), Flambeau Lower (P-2421), Flambeau Pixley (P-2395) and Flambeau Crowley (P-2473).

Please return any comments on the draft reports to me within 30 days.

Thanks

Brian Kreuzscher

Renewable World Energies
Regulatory & Compliance
855-994-9376 x230

Brian Kreuscher

From: Brian Kreuscher
Sent: Thursday, December 06, 2018 3:58 PM
To: Laatsch, Cheryl - DNR
Subject: Re: Flambeau Upper (P-2640) Flambeau Lower (P-2421) Pixley (P-2395) Crowley (P-2473) Water Quality Draft Reports

Cheryl,

We are open next week Dec 12th 9AM to 2PM, or December 17th through the 20th 9AM to 3PM, December 18th only open until 2PM. Do any of these work?

Thanks
Brian Kreuscher

From: Laatsch, Cheryl - DNR <Cheryl.Laatsch@wisconsin.gov>
Sent: Tuesday, December 4, 2018 11:34 AM
To: Brian Kreuscher
Subject: RE: Flambeau Upper (P-2640) Flambeau Lower (P-2421) Pixley (P-2395) Crowley (P-2473) Water Quality Draft Reports

Yes. I think we can make things simpler and more effective for you and the DNR.

We are committed to service excellence.

Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

Cheryl Laatsch
Statewide FERC Coordinator
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Wisconsin Dept of Natural Resources
N7725 Hwy 28
Horicon WI 53032
(T) 920-387-7869 (Fax) 920-387-7888
Cheryl.laatsch@wisconsin.gov



From: Brian Kreuscher <bkreuscher@rwehydro.com>
Sent: Tuesday, December 04, 2018 9:30 AM
To: Laatsch, Cheryl - DNR <Cheryl.Laatsch@wisconsin.gov>
Subject: Re: Flambeau Upper (P-2640) Flambeau Lower (P-2421) Pixley (P-2395) Crowley (P-2473) Water Quality Draft Reports

Cheryl,

Yes we can. I have asked Angie Stine of White Water Associates for her free time regarding the AIS. Is this something you want to cover during the same conference call? Personally I am free this whole month.

Thanks
Brian Kreuzscher

From: Laatsch, Cheryl - DNR <Cheryl.Laatsch@wisconsin.gov>
Sent: Tuesday, December 4, 2018 9:06 AM
To: Brian Kreuzscher
Subject: RE: Flambeau Upper (P-2640) Flambeau Lower (P-2421) Pixley (P-2395) Crowley (P-2473) Water Quality Draft Reports

Can we get a date on the calendar to go over the report and help streamline a few things?

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Cheryl Laatsch
Statewide FERC Coordinator
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From: Brian Kreuzscher <bkreuscher@rwehydro.com>
Sent: Tuesday, December 04, 2018 9:00 AM
To: Laatsch, Cheryl - DNR <Cheryl.Laatsch@wisconsin.gov>
Cc: Mushel, Joelle A - DNR <Joelle.Mushel@wisconsin.gov>
Subject: Re: Flambeau Upper (P-2640) Flambeau Lower (P-2421) Pixley (P-2395) Crowley (P-2473) Water Quality Draft Reports

Cheryl,
Here you are.

Thanks
Brian Kreuzscher

From: Laatsch, Cheryl - DNR <Cheryl.Laatsch@wisconsin.gov>
Sent: Monday, December 3, 2018 9:49 AM

To: Brian Kreuscher

Cc: Mushel, Joelle A - DNR

Subject: RE: Flambeau Upper (P-2640) Flambeau Lower (P-2421) Pixley (P-2395) Crowley (P-2473) Water Quality Draft Reports

May I please have the excel spreadsheets for this data?

We are committed to service excellence.

Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

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Cheryl.laatsch@wisconsin.gov



From: Brian Kreuscher <bkreuscher@rwehydro.com>

Sent: Friday, November 30, 2018 6:10 PM

To: Laatsch, Cheryl - DNR <Cheryl.Laatsch@wisconsin.gov>; Nick Utrup <nick_utrup@fws.gov>

Subject: Flambeau Upper (P-2640) Flambeau Lower (P-2421) Pixley (P-2395) Crowley (P-2473) Water Quality Draft Reports

All,

Attached are the Draft Water Quality Reports. Please review and provide any comments you may have to me within 30 days for FERC submittal.

Thanks

Brian Kreuscher
Renewable World Energies
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855-994-9376 x230