

February 4, 2019

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

**RE: Flambeau Crowley FERC Project Number 2473
Flambeau Hydro LLC
Final Report 2019 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 2019 Purple Loosestrife Inventory Report* for the Flambeau Crowley Hydroelectric Project. The report is a requirement of Flambeau's Federal license pursuant to article 410.

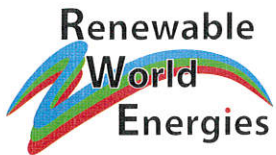
Monitoring was conducted on August 14, 2019. No out of the ordinary issues were encountered. The impoundment was surveyed by boat and no purple loosestrife was found. On the south side of HWY 70 at 6 Mile Creek there were 4 sites that had purple loosestrife. Sites FLCR PL008 (10 plants) 10 plants pulled, FLCR PL009 (2 plants) 2 plants pulled, FLCR PL010 (4 plants) 4 plants pulled, FLCR PL012 (2 plants) 2 plants pulled. The draft report was sent to the agencies by an attachment to an e-mail on November 26, 2019 for review and comment. No comment was received pertaining to the Crowley report from the DNR, though a comment did reference the Flambeau Lower (P-2421) report. No comments have been received from the USFWS. The next scheduled monitoring event will be conducted in 2020.

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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Sincerely,
Renewable World Energies, LLC
Agent for Licensee

A handwritten signature in black ink, appearing to read "B-14".

 Mr. Jason Kreuzscher
Vice President

Attachment: Flambeau Crowley Final Purple Loosestrife Inventory Report
Correspondence

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

2019 Purple Loosestrife Inventory
for
Flambeau Crowley Hydroelectric Project
FERC Project #2473
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 Crowley Hydroelectric Project, FERC #2473

On August 14, 2019, White Water Associates, Inc. performed an inventory of purple loosestrife at the Flambeau Crowley 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.

2019 Observations

The Flambeau Crowley Project boundary was divided into three different areas; *the impoundment* (from approximately 500 feet downstream of the Pixley Dam to the Crowley Dam), *FHLLC-owned property within the project boundary* (FHLLC-owned property adjacent to the dam and powerhouse), and *the tailrace* (from the dam and powerhouse to approximately 500 feet downstream of the dam).

The impoundment was surveyed by boat and no purple loosestrifes were found. On the south side of HWY 70 at 6 Mile Creek there were four sites that had purple loosestrife plants. These sites were observed on foot.

The FHLLC-owned property within the project boundary was surveyed on foot and no purple loosestrife plants were found.

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

Site FLCRPL008 had ten purple loosestrife plants observed and the plants were pulled. Site FLCRPL009 had two plants and they were hand pulled. Site FLCRPL010 had four plants and they were removed. Site FLCRPL012 had two plants and they were removed.

A map of purple loosestrife locations observed in 2019 is available in Appendix A. Appendix B provides tables of historical purple loosestrife data as well as observations made in 2019. Appendix C provides scans of field data sheets. Appendix D provides photos taken at the project area.

Appendix A

Maps



Map 1. Locations of purple loosestrife at Flambeau Crowley in 2019.

Appendix B

Tables

Table 1. GPS points for purple loosestrife inventory at Flambeau Crowley, FERC#2473.

<i>GPS Point</i>	<i>Latitude</i>	<i>Longitude</i>	<i>Plant Height</i>	<i>Stand Area</i>	<i>Comments</i>
FLCRPL001	45.86360	-90.54765	1'-4'	~180'x25'	<p>2002-first observed. 11 plants observed. 2003-2008-treated with herbicide. 2009-area of purple loosestrife had declined by 50% 2010-area of purple loosestrife similar, but number of plants increased. Treated with herbicide. 2011-number of plants decreased. Treated with herbicide. 2012-number of plants increased. Treated with herbicide. 2013, 2014, & 2015-plants were hand pulled. 2016-14 plants observed and pulled. 2017-1 plant observed no treatment. 2018- Multi-stem out of reach no treatment.</p>
FLCRPL002	45.86417	-90.54643	1'-3'	~180'x25'	<p>2002-first observed. 11 plants observed. 2003-2008-treated with herbicide. 2009-area of purple loosestrife had declined by 50% 2010-area of purple loosestrife similar, but number of plants increased. Treated with herbicide. 2011-number of plants decreased. Treated with herbicide. 2012-number of plants increased. Treated with herbicide. 2013, 2014, & 2015-plants were hand pulled. 2016-14 plants observed and pulled.</p>
FLCRPL003	45.86429	-90.54673	N/A	N/A	<p>2002-first observed. Flowering heads clipped 2003-treated with herbicide. 2004-no plants observed. 2005-1 plant observed and pulled. 2006-some plants observed. Treated with herbicide. 2007, 2008, & 2009-no plants observed. 2010-1 plant observed. Treated with herbicide. 2011-1 plant observed and pulled. 2012, 2013, 2014, & 2015-no plants observed. 2016-no plants observed.</p>

<i>GPS Point</i>	<i>Latitude</i>	<i>Longitude</i>	<i>Plant Height</i>	<i>Stand Area</i>	<i>Comments</i>
FLCRPL004	45.86421	-90.54690	N/A	N/A	2002-first observed. Flowering heads clipped 2003-treated with herbicide. 2004-no plants observed. 2005-1 plant observed and pulled. 2006-some plants observed. Treated with herbicide. 2007, 2008, & 2009-no plants observed. 2010-1 plant observed. Treated with herbicide. 2011-1 plant observed and pulled. 2012, 2013, 2014, & 2015-no plants observed. 2016-no plants observed.
FLCRPL005	45.86544	-90.54646	N/A	N/A	2002-first observed. Flowering heads clipped. 2003-2015-no plants observed. 2016-no plants observed
FLCRPL006	45.86356	-90.54909	N/A	N/A	2008-first observed. Plants pulled. 2009-plants observed. Plants pulled. 2010-2015-No plants observed. 2016-no plants observed.
FLCRPL007	45.86385	-90.54592	1'-3'	2'x2'	2015-first observed. No treatment. 2016-no plants observed. 2018- no treatment.
FLCRPL008 (CR PLA)	45.86396	-90.54697	3'	1'x1'	2016-first observed. 55 plants observed. No treatment. 2017-4 plants observed. No treatment. 2018-ten plants observed and pulled. 2019 – multi-stemmed pulled.
FLCRPL009	45.86377	-90.54746	3'	1'x1'	2017-first observed. Three plants observed. No treatment. 2018- Multi-stemmed plant three by edge pulled – two plants across water no treatment. 2019-Multi-stemmed plant –two pulled.
FLCRPL010	45.86410	-90.54667	3'	2'x2'	2017-first observed. Ten plants observed. No treatment. 2018- ~ 12 plants pulled. 2019~Mulit-stemmed pulled.
FLCRPL011	45.86431	-90.54614	3'	1'x1'	2017-first observed. Three plants observed. No treatment. 2018- Two plants pulled.
FLCRPL012	45.86440	-90.54594	4'	1' x 2'	2019 – First observed. Muti-stemmed. Hand pulled.

Appendix B

Appendix C

Scans of Datasheets

Purple Loosestrife Survey

Crowley

Hydroelectric Project – FERC # 2473

Page 1 of 2

Date 8-14-18 Conducted By Angie Schaefer

HWL 147.2 TWL 146.7 CFS 865 Equipment Used: binocular, camera 9/8

Air Temp: 67 °F Wind Speed NE 10 mph Barometer: 30.09 Sky Conditions: 50% clouds

Time Survey Started 14:25 Time Survey Ended 16:30 Boat (14ft or Canoe) and/or Foot

Latitude Start BL Crowley Longitude End BL Crowley

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)					

Other Species Observed:

Purple Loosestrife Survey

Crandley

Hydroelectric Project - FERC # 2473

Page 2 of 2

Date 8-14-19 Conducted By Angie Shive

HWL 142.21 TWL 146.7 CFS 845 Equipment Used: Binoculars, GPS, Camera

Air Temp: 67°F Wind Speed: NE 10 mph Barometer: 30.09 Sky Conditions: 90% Clouds

Time Survey Started 14:00 Time Survey Ended 14:10 Boat (14ft or Canoe) and/or Foot

Latitude Start _____ Longitude End 3

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

Description of Location By road

Historic Info: _____ Purple loosestrife found historically across road

Purple Loosestrife Found: Yes or No

45,86440
W 090,54594

Information	PL009	PL008	PL010	PLCR02
Site				
Time	<u>14:02</u>	<u>14:05</u>	<u>14:09</u>	<u>14:11</u>
Photo ID				
Location				
Single or Multi-stem	<u>Multi</u>	<u>Multi</u>	<u>Multi</u>	<u>Multi</u>
# of Plants	<u>2</u>	<u>8-10</u>	<u>4</u>	<u>2</u>
Acreage est.				
Stand Area Density				<u>2x2'</u>
Size Colony				
S=0-5, M=6-50, L=>50~	<u>S</u>	<u>M</u>	<u>S</u>	<u>S</u>
Plant Height ~ Ft	<u>3-4'</u>	<u>4'</u>	<u>4'</u>	<u>4'</u>
Flowering %	<u>100%</u>	<u>70%</u>	<u>60%</u>	<u>100%</u>
Beetle Feeding?				
Plant Vigor (Very poor to good)		<u>Good</u>	<u>Good</u>	<u>Good</u>
Plant Removed (explain)	<u>yes</u>	<u>yes</u>	<u>yes</u>	<u>yes</u>

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:

Appendix D

Photos



Photo 1. Purple loosestrife growing along roadside.



Photo 3. Purple loosestrife grown on water's edge.

FW: Crowley (P-2473) Pixley (P-2395) Upper (P-2640) Lower (P-2421) 2017 Purple Loosestrife Draft Reports

Laatsch, Cheryl - DNR <Cheryl.Laatsch@wisconsin.gov>

Thu 12/5/2019 11:23 AM

To: Brian Kreuzscher <bkreuscher@rwehydro.com>

Cc: Mushel, Joelle A - DNR <Joelle.Mushel@wisconsin.gov>

Hi Brian -

FERC 2421 Flambeau Lower has a single location of PL (Data Point FLLWPL004.) This seems like this is the second year where it was too big to hand pull. We are asking that you go plan ahead of time to have proper tools and clippers to cut the plant and prevent the seeds from spreading. Small stands of plants should be removed.

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: Wirt, Alan W - DNR <Alan.Wirt@wisconsin.gov>

Sent: Monday, December 02, 2019 10:04 AM

To: Laatsch, Cheryl - DNR <Cheryl.Laatsch@wisconsin.gov>; Mushel, Joelle A - DNR <Joelle.Mushel@wisconsin.gov>

Subject: RE: Crowley (P-2473) Pixley (P-2395) Upper (P-2640) Lower (P-2421) 2017 Purple Loosestrife Draft Reports

Cheryl

Thank you for your time in this matter.

We are committed to service excellence.

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

Alan W. Wirt
Water Resource Management Specialist
Wisconsin Department of Natural Resources

Rhineland, Wisconsin 54501
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Email: Alan.Wirt@wisconsin.gov



From: Laatsch, Cheryl - DNR <Cheryl.Laatsch@wisconsin.gov>
Sent: Friday, November 29, 2019 9:57 AM
To: Wirt, Alan W - DNR <Alan.Wirt@wisconsin.gov>; Mushel, Joelle A - DNR <Joelle.Mushel@wisconsin.gov>
Subject: FW: Crowley (P-2473) Pixley (P-2395) Upper (P-2640) Lower (P-2421) 2017 Purple Loosestrife Draft Reports

Hi Al – Please see the email below and the various attachments for the PL reports. Please let me know if you have any concerns or comments or changes. I can have Joelle work with RWE on using the forms to report PL. Comments due Dec 10th.

We are committed to service excellence.

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

Cheryl Laatsch
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Cheryl.laatsch@wisconsin.gov



From: Brian Kreuzscher <bkreuscher@rwehydro.com>
Sent: Tuesday, November 26, 2019 8:10 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).

Last year there were comments about using a standard reporting form. We didn't get around to discussing using that going forward. This year there were no subjective comments regarding Purple Loosestrife that wasn't pulled. All instances that were found were pulled except a single observance at the Lower project which was too large to pull.

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

Thanks

Brian Kreuzer

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

Document Content(s)

20-02-04 BRK CRLY Final P L Rpt To FERC ALL.PDF.....1-19