

November 14, 2013

Mr. Peter Fasbender Field Supervisor U.S. Fish and Wildlife Service 2661 Scott Tower Drive New Franken, WI 54229

Ms. Cheryl Laatsch Statewide FERC Coordinator Wisconsin Department of Natural Resources N7725 Hwy 28 Horicon, WI 53032

Re: Flambeau Crowley Project

FERC # 2473

Flambeau Hydro, LLC

Article 410, 2013 DRAFT Purple Loosestrife Inventory

Dear Ms. Laatsch, and Mr. Fasbender:

Attached you will find a copy of the Flambeau Hydro, LLC "Purple Loosestrife Inventory" for 2013. This annual report has been prepared to comply with the federal hydropower license of the project and article named above and is being filed with the Federal Energy Regulatory Commission.

If you have any questions regarding this submission, please contact Mr. Gary Rast at Renewable World Energies Neshkoro office @ (855)994-9376, ext 105 or Aneta Rietveld at Renewable World Energies Norway office @ (855)994-9376, ext 108. They can also be reached via email at grast@rwchydro.com or arietveld@rwehydro.com.

Sincerely,

Renewable World Energies, LLC

Agent for the Licensee

Cot Mr. Jason Kreuscher

Vice President Operations

CC: RWE Hydro, Corporate

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Flambeau Crowley Project Purple Loosestrife Inventory August 14, 2013 FERC Project # 2473 Article 410

Flambeau Hydro LLC 100 S. State St. Neshkoro, WI 54960

Purple Loosestrife

On August 14, 2013, Flambeau Hydro, LLC (FHLLC) performed an inventory of purple loosestrife plants at the Flambeau Lower Project in Price County, Wisconsin. The method of inventory as approved and modified by Federal Energy Regulatory Commission (FERC) Order of 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 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 receiver 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.

Example:

#1) 6' tall plants; 4' x 20'; 30% cover; 4-5 stems per plant; 4 plants; on shoreline N45 56.183' W90 26.748'; no photo

#2) 5'-7' tall plants; 10' x 10'; 25% cover; 4-5 stems per plant; 10 plants; in marsh ~50 feet Bearing 25 degrees from N45 56.256' W90 26.710'; photo No. 1

The area to be inventoried shall be the shoreline of the impoundment to elevation 1428 feet NGVD and lands owned by FHLLC within the Project Boundary as indicated on the Project Map 1, dated November 1991, included in Exhibit G of Flambeau Paper Corp. Application for a Subsequent License for the Crowley Hydroelectric Project FERC Project #2473.

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

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

The impoundment was surveyed by boat and one occurrence of purple loosestrife plants was observed.

The only site where purple loosestrife was found was FLCR PL001- FLCR PL002. This is along the south side of the Highway 70 causeway at 6-Mile Creek. From 2003 until 2012, this site has been treated with a Glyphosate solution. In 2010 there were 21 purple loosestrife plants observed in this location. In 2011 that number was down to 3. In 2012 there were 11 multi-stem plants between 1-3 feet tall. In 2013 there were again 10 plants along the causeway. They showed no signs of Galerucella beetles feeding on the plants and were between 2-3 feet tall with flowering spikes. This year all were hand pulled with the root ball and properly disposed of.

None of the other occurrences of purple loosestrife were observed during this year's survey.

Purple Loosestrife Survey

Project: Flambeau Crowley #2473

Datum:

WGS 84

Date:

August 14, 2013

Page:

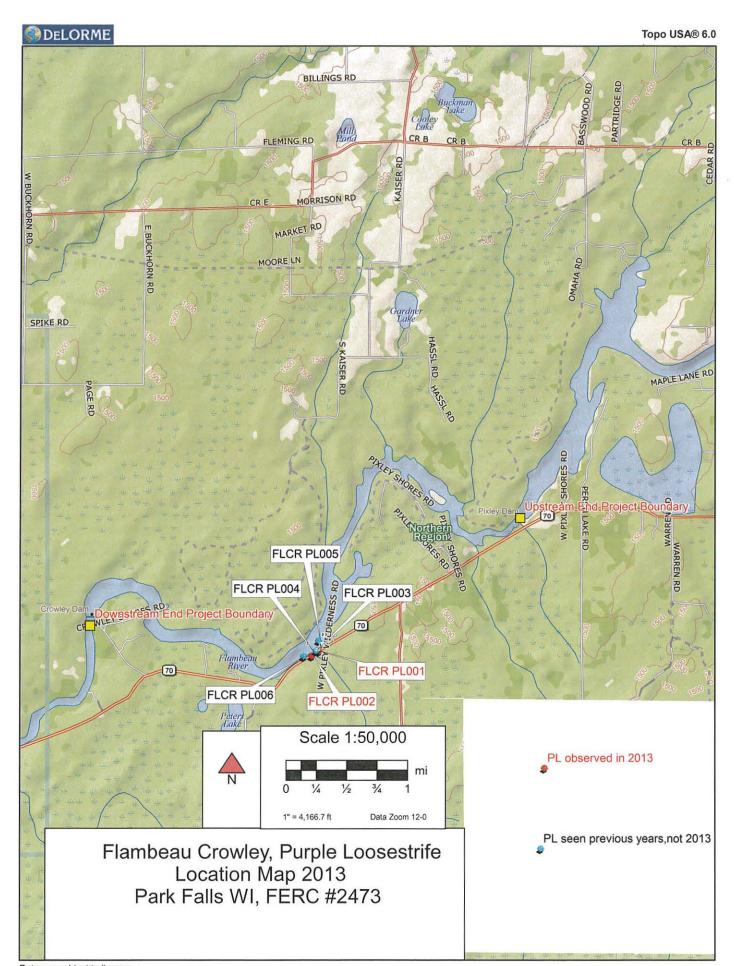
1 of 2

Crew:

GGR and AKR

The stand area had declined in size by 50% in 2009. In 2010 the stand area remained the same but experienced an increase in the number of plants without blooms. In 2011 the number of plants decreased again. The 3 plants found were treated with herbicide. In 2012 the plant population went back up in number and was again treated with herbicide. This occurrence recorded on	Sighting #	GPS Point	Latitude	Longitude	Plant Height	Stand Area	Comments
digital photos and/or video tape from 2002-2008. In 2013 there were 10 plants along the causeway- they were hand pulled to the roots and properly disposed of.	1	FLCR PL001	William Committee Committe		1'-3'	11 multi-stem	PL001) and 215 (FLCR PL002) on the south side of the causeway formed by HWY 70 just east of the 6-Mile boat landing. First located in 2002 when 11 plants were observed over a 375 foot long area. All plants have been treated yearly with herbicide starting in 2003 through 2012 with the exception of 2005, when 1 immature single stem plant was pulled and the rest appeared to have been spot treated with an herbicide by other person(s) before the licensee survey crew arrived. The stand area had declined in size by 50% in 2009. In 2010 the stand area remained the same but experienced an increase in the number of plants growing at this site. Plants were small in size and most without blooms. In 2011 the number of plants decreased again. The 3 plants found were treated with herbicide. In 2012 the plant population went back up in number and was again treated with herbicide. This occurrence recorded on digital photos and/or video tape from 2002-2008. In 2013 there were 10 plants along the causeway- they were hand pulled to the roots

2	216-217 FLCR PL003 - FLCR PL004	N45 51.857' N45 51.853	W90 32.806' W90 32.814'	N/A	N/A	Located between GPS points 216 (FLCR PL003) and 217 (FLCR PL004) on the north side of the causeway formed by HWY 70 just east of the 6-Mile boat landing. First observed in 2002. All seed heads at this occurrence were harvested in August 2002 to prevent propagation. All plants were treated with herbicide in 2003. No purple loosestrife plants were observed at this location in 2004. The only plant found in 2005 was pulled. All plants were treated with herbicide in 2006. No plants were found at this location in 2007, 2008, and 2009. In 2010 one large plant was located at this site and treated with herbicide. The one plant found at this site in 2011 was pulled. This occurrence recorded on digital photos and/or video tape in 2002, 2003, 2005,& 2006. No plants found at this site in 2012 or 2013.
3	FLCR PL005	N45 51.926'	W90 32.788'	N/A	N/A	Located at GPS point on a bog in a stump field in the river east of the 6-Mile boat landing. All seed heads were harvested in August 2002 to prevent propagation. This site has not reoccurred since 2002.
4	FLCR PL006	N45 51.814'	W90 32.9445'	N/A	N/A	Located at GPS point on the east side of the 6-Mile boat landing. First observed in 2008. All plants pulled in 2008 and 2009. No plants observed in 2010, 2011, 2012, or 2013. Photos in 2008.



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CRLY 2013 Purple Loosestrife by Causeway

Year 2013 Purple Loosestrife Survey

Flambeau Crowley Hydroelectric Project – FERC # 2640

Date: 8-19-13		ducted By:A		
HWL: 1427,24	TWI	L: _1405,°	7	CFS-792
Time Survey Started: 910	0	_ Time Survey E	nded:	9:30
Weather Conditions:		o partle	a cloud	Ly
)	0
ocation of Survey Area: Tail	lrace	dance pat Bypass Reach	arl X	Impoundment
ime of Sighting(s):				
ocation of Sighting(s) (GPS C	Coordinates):			
		\	(Attac	ch Photos & Map if Applicable)
Purple Loosestrife:	_ none	observed		
Other Species Observed:	black	berries		
	Other Pertin	nent Survey Infori	mation	
		-		

Year 2013 Purple Loosestrife Survey

Flambeau Crowley Hydroelectric Project – FERC # 2640

Date: 8-19-1	<u>3</u> c	onducted By:	_AK K	GGR	
Date: 8-19-1 HWL: 1427.7 Time Survey Started:		wl: 14	05.9	CFS-	792
Time Survey Started:	8:00 am	Time Su	1:30 -	11-30	
Weather Conditions: _	sunny	480		Paille	g cloudy
Location of Survey Are	ea: Tailrace	Bypass	Reach	Impound	nent
Time of Sighting(s): Location of Sighting(s)	8am	- by	bmlo	boat la	unch along
Location of Sighting(s)	(GPS Coordinates):		highu	vay- not	on our
			pupe	My - PI	alled this
			(Attach Photos & Ma	p if Applicable)
Purple Loosestrife:	X				
Other Species Observe	d: <u>2</u> 0	Hero			
pulled	·		y Information	le pu	1 In-
			-		