



February 26, 2019

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

**Re: Clam River Hydroelectric Project FERC #9185
Flambeau Hydro, LLC
Article 401 (b) (M) – Final 2018 Purple Loosetrife Inventory Report**

Dear Ms. Bose:

On behalf of Flambeau Hydro, LLC (Licensee), Renewable World Energies LLC is submitting the *Final 2018 Purple Loosetrife Inventory Report* for the Clam River Hydroelectric Project. It is a requirement of Article 401 (b) (M) amended April 23, 2013 of the License issued to Flambeau Hydro LLC by the Federal Energy Regulatory Commission on July 24, 2006 which was amended May 12, 2014. The 401 (b) (M) amendment changes the monitoring schedule from every year to every other year as well as Galerucella Beetles being placed at documented Purple Loosetrife sites in the non-survey year.

The report was sent to the agencies as an attachment to an e-mail on December 13, 2018. The letter and e-mail asked for comment if they had any to offer. No comment has been received to date from either Mr. Utrup (USFWS) or Ms. Laatsch (WDNR). The survey was conducted on August 20, 2018. The Impoundment Survey noted (21) sites with observed Purple Loosetrife. Two (2) of the sites observed with Purple Loosetrife for the first time. The FHLLC – Owned Property, Bypass Reach, and Tailrace Surveys were conducted but no Purple Loosetrife was observed during this survey. Galerucella Beetles are scheduled to be released in 2019. The next survey and report will be due in 2020.

If you have any questions concerning the report, please contact Brian Kreuzer at the Renewable World Energy LLC offices @ 855-994-9376 Ext. 230. He can also be reached by e-mail at bkreuzer@rwehydro.com.

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Sincerely,
Renewable World Energies, LLC
Agent for Licensee

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

Handwritten initials "For" in black ink, positioned to the left of the typed name.

Mr. Jason Kreuzscher
Vice President, Operation

Attachment: Final Clam River 2018 Purple Loosestrife Inventory Report
Agency Correspondence

Cc: Ms. Cheryl Laatsch, WDNR – Attachment to E-Mail
Mr. Nick Utrup, USFWS – Attachment to E-Mail
Mr. Paul Cook, Burnett County – Attachment to E-Mail
RWE

2018 Purple Loosestrife Inventory
for
Clam River Hydroelectric Project
FERC Project #9185
Flambeau Hydro, LLC
Burnett County, Wisconsin

Submitted by:



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

Summary of Purple Loosestrife Inventory for Clam River Hydroelectric Project, FERC #9185

On August 20, 2018, White Water Associates, Inc. performed an inventory of purple loosestrife at the Clam River Hydroelectric Project. This is a requirement of Article 401 (b) (M) amended April 23, 2013 of the License issued to Flambeau Hydro LLC by the Federal Energy Regulatory Commission (FERC) (July 24, 2006; amended May 12, 2014). This amendment changes the monitoring schedule from every year to every other year as well as *Galerucella* beetles being placed at documented purple loosestrife sites in the non-survey year.

2018 Observations

The Clam River Hydroelectric Project boundary was divided into four different areas; *the impoundment* (from approximately 3.1 miles upstream of the Clam River powerhouse downstream to the Clam River powerhouse), *FHLLC-owned property within the project boundary* (FHLLC-owned property adjacent to the dam and powerhouse), *the tailrace* (from the powerhouse to a point approximately 900 feet downstream), and *the bypass reach* (from the spillway to a point approximately 800 feet downstream).

The impoundment was surveyed by boat and twenty-one sites had purple loosestrife plants. More description of these sites is provided below.

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

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

The bypass reach was surveyed on foot and no purple loosestrife plants were observed.

Twenty-one sites within the project area had purple loosestrife plants present in 2018.

Site CLRVPL003 had 20+ plants with no treatment. Site CLRVPL004 had 50+ plants with only 1 removed. Site CLRVPL005 had 4 plants and no treatment. Site CLRVPL006 had 20 plus plants and no treatment. Site CLRVPL007 had 3 multi-stemmed plants observed and no treatment. CLRVPL008 had 20+ plants with no treatment. CLRVPL009 had 3 multi-stem plants and no treatment. Site CLRVPL5A had 1 plant and no treatment. CLRVPL5B had 3 plants and no treatment. Site CLRVPL8A had 3 plants observed and no treatment. Site CLRVPL8B had 20+ plants observed and were not treated. Site CLRVPL10A had 1 plant and no treatment. Site CLRVPL013 had 10 multi-stemmed plants with no treatment. Site CLRVPL014 had 1 multi-stem plant and it was pulled.

The following sites were observed with purple loosestrife for the first time in 2018. Site CLRVPL017 had 2 plants and no treatment. Site CLRVPL018 had 3 multi-stemmed plants and no treatment. Site

CLRVPL021 had 8 plants observed and was not treated. Site CLRVPL022 had 20+ plants observed and were not treated. Site CLRVPL023 had 50+ plants and no treatment. Site CLRVPL024 had 3 plants and no treatment.

Beatles Released

Renewable World Energies has been working with the Grantsberg High school biology teacher, Mathew S. Berg, and students to release *Galerucella* beetles at the Clam River Flowage. In 2017, 3,000 beetles were released at one location and another 3,000 beetles were released in a different location.

A map of purple loosestrife locations observed in 2018 is available in Appendix A. Appendix B provides tables of historical purple loosestrife data as well as observations made in 2018. Appendix C provides scans of field data sheets. Appendix D provides photos taken at the project area. Appendix E provides beetle release documents.

Appendix A

Maps

Appendix B

Tables

Table 1. GPS points for purple loosestrife inventory at Clam River, FERC#2640.

<i>GPS Point</i>	<i>Latitude</i>	<i>Longitude</i>	<i>Plant Height</i>	<i>Stand Area</i>	<i>Beetle Activity</i>	<i>Comments</i>
CLRVPL001	45.90821	-92.51880	5'-6'	12'x3'	2014-no damage	2007-first observed. All plants pulled. 2008 & 2009-no plants observed. 2010, 2011 & 2012-site inaccessible due to silting. 2013-no plants observed. 2014-2 plants observed and pulled. 2016-no plants observed.
CLRVPL002	45.91354	-92.51691	3'	1'x1'	N/A	2007-first observed. No treatment. 2008-no plants observed. 2009-some plants observed. No beetle damage. No treatment. 2010 & 2011-no plants observed. 2012-site inaccessible. 2013 & 2014-no plants observed. 2016-no plants observed.
CLRVPL003	45.91664	-92.51582	3'	1'x2'	2014-beetle damage in 10% of plants	2007-first observed. No treatment. 2009 & 2010-fewer plants observed. No treatment. 2011-considerable increase in plants observed. No beetle damage. No treatment. 2012-site inaccessible. 2013 & 2014-plants observed. 2016-no plants observed. 2018-20 plus plants observed. No treatment.
CLRVPL004	45.92067	-92.51714	3'-4'	30'x10'	2014-beetle damage in 10% of plants	2007-first observed. No treatment. 2009 & 2010-fewer plants observed. No treatment. 2011-considerable increase in plants observed. No beetle damage. No treatment. 2012-site inaccessible. 2013 & 2014-plants observed. 2016-1 plant observed. No treatment. 2018-50 plus multi-stem plants observed. 1 plant removed.

<i>GPS Point</i>	<i>Latitude</i>	<i>Longitude</i>	<i>Plant Height</i>	<i>Stand Area</i>	<i>Beetle Activity</i>	<i>Comments</i>
CLRVPL005	45.92141	-92.51259	4'	10'x15'	N/A	2007-first observed. 2012-no beetle damage. Plants blooming. No treatment. 2013-no beetle damage. 2014-no plants observed. 2016-no plants observed. 2018-4 plants observed and pulled.
CLRVPL006	45.92549	-92.50841	4' to 5'	20'x 20'	2013-no damage 2014-no damage 2018-no damage	2007-first observed. No beetle damage. All plants pulled. 2008-no beetle damage. All plants pulled. 2009-seed heads clipped. 2010-no treatment. 2011-same number of plants as previous years. 2012-no plants observed. 2013-1 plant observed. No treatment. 2014-22 plants observed. 2016-25 plants observed and pulled. 2018-20 plus plants observed. No treatment.
CLRVPL007	45.92569	-92.51010	4'	10'x10'	2013-no damage	2007-first observed. No beetle damage. No treatment. 2008 & 2009-same as 2007. No treatment. 2010, 2011 & 2012- no plants observed. 2013-1 plant observed. No beetle damage. 2014-no plants observed. 2016-2 plants observed. No treatment. 2018-3 plants observed. No treatment.
CLRVPL008	45.91955	-92.51429	4'	10'x10'	2013-some plants are damaged 2014-20% of plants with damage	2008-first observed. No treatment. 2009 & 2010-plants observed. No treatment. 2011-number of plants increased. No treatment. 2012-site inaccessible. 2013-beetles released. 2014-similar number of plants as 2013. 2016-20 plants observed. Flowering heads clipped off. 2018-20 plus. No treatment.

<i>GPS Point</i>	<i>Latitude</i>	<i>Longitude</i>	<i>Plant Height</i>	<i>Stand Area</i>	<i>Beetle Activity</i>	<i>Comments</i>
CLRVPL009	45.92154	-92.51162	3'-4'	2'x1'	N/A	2009-first observed. No treatment. 2010 through 2014-no plants observed. 2016-20 plants observed. No treatment. 2018-3 multi-stem plants observed. No treatment.
CLRVPL010	45.92055	-92.51439	N/A	N/A	N/A	2009-first observed. No beetle damage. No treatment. 2010-plants observed. No treatment. 2011-3 plants observed. 2012, 2013 & 2014-no plants observed. 2016-10 plants observed. No treatment.
CLRVPL011	45.92613	-92.50824	N/A	N/A	N/A	2010-first observed. No treatment. 2011-50 plants observed. No treatment. 2012-No plants observed. 2013-2 plants observed. No beetle damage. 2014-no plants observed. 2016-no plants observed.
CLRVPL012	45.92808	-92.51457	N/A	N/A	N/A	2010-first observed. 2011-3 plants observed. No treatment. 2012-site inaccessible. 2013-site inaccessible. 2014-no plants observed. 2016-2 plants observed. No treatment.
CLRVPL013	45.91452	-92.51613	N/A	N/A	N/A	2010-first observed. 2011-1 plant observed. No beetle damage. No treatment. 2012-site inaccessible. 2013 & 2014-no plants observed. 2016-no plants observed. 2018-10 plus multi-stem plants. No treatment.
CLRVPL014	45.92286	-92.50993	2'-4'	2'x2'	N/A	2012-first observed. No treatment. 2013 & 2014-no plants observed. 2016-2 plants observed. No treatment. 2018-1 plant observed. Pulled.

<i>GPS Point</i>	<i>Latitude</i>	<i>Longitude</i>	<i>Plant Height</i>	<i>Stand Area</i>	<i>Beetle Activity</i>	<i>Comments</i>
CLRVPL015	45.93168	-92.5261	3'	1'x1'	2014-no damage	2014-first observed. 1 plant pulled. 2016-no plants observed.
CLRVPL016	45.88423	-92.50117	4'	2'x2'	2014-no damage	2014-first observed. Not on RWE property. 2016-no plants observed.
CLRVPL017	45.92486	-92.50861	4'	10'x10'	N/A	2018-first observed. 2 plants observed. No treatment.
CLRVPL018	45.92374	-92.50897	4'	2'x2'	N/A	2018-first observed. 3 plants observed. No treatment.
CLRVPL021	45.91943	-92.51471	4'	2'x6'	N/A	2018-first observed. 8 multi-stem plants observed. No treatment.
CLRVPL022	45.91798	-92.51588	4'	200'x50'	N/A	2018-first observed. 20+ plants observed. No treatment.
CLRVPL023	45.91903	-92.51642	4'	~1 acre	N/A	2018-first observed. 50+ plants observed. No treatment.
CLRVPL024	45.91822	-92.51496	3'	2'x2'	N/A	2018-first observed. 3 multi-stem plants observed. No treatment.
CLRVPL4A	45.92041	-92.51787	4'	2'x10'		2016-first observed. 15 plants observed. Heads clipped. 2017-10+ plants observed. No treatment.
CLRVPL4B	45.91872	-92.51866	3'	4'x4'		2016-first observed. 3 plants observed. Heads clipped off. 2017-8 plants observed. No treatment.
CLRVPL5A	45.92251	-92.51325	4'	2'x2'		2016-first observed. 1 plant observed. No treatment. 2018-1 plant observed. No treatment.
CLRVPL5B	45.92212	-92.51618	3'	1'x1'		2016-first observed. 1 plant observed. No treatment. 2018-3 multi-stem plants. No treatment.
CLRVPL8A	45.91866	-92.51450	4'	10'x20' 2'x2'		2016-first observed. 1 plant observed. No treatment. 2018-3 multi-stem plants observed. No treatment.
CLRVPL8B	45.91754	-92.51584	3'	10'x10'		2016-first observed. 20 plants observed. No treatment.
CLRVPL10A	45.92126	-92.51410	4'	20'x20' 1'x1'		2016-first observed. 21 plants observed and pulled. 2018-1 multi-stem. No treatment.
CLRVPL16A	45.93745	-92.52584	4'	2'x2'		2016-first observed. 15 plants observed and pulled.

Appendix B

Table 2. GPS points for <i>Galerucella</i> beetle release at Clam River, FERC#2640.				
<i>GPS Point</i>	<i>Latitude</i>	<i>Longitude</i>	<i>Number of beetles released</i>	<i>Comments</i>
CLRVGC001	45.93193	-92.50852	2000-3000	2013-released in July.
	45.92033	-92.51709	3,000	2017-released in July
	45.91969	-92.51687	3,000	2017-released in July

Appendix C

Scans of Datasheets

Purple Loosestrife Survey

Clam River

Hydroelectric Project – FERC # 9185

Page 1 of 3

Date: 8-20-18 Conducted By Steve Warmboe

HWL 898.66 TWL 863.10 CFS 156 Equipment Used: Binocular, GPS, Camera, Clippers

Air Temp: 68 °C Wind Speed: 15 mph Barometer: 30 Sky Conditions: 100 Clouds

Time Survey Started 8:00 Time Survey Ended _____ Boat (14ft or Canoe) and/or Foot

Latitude Start BL Longitude End BL

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

Description of Location _____

Historic Info: Loss of PL found historically beetles released 2017

Purple Loosestrife Found: Yes or No

Information					
Site	PL0006*	PL017	PL007	PL018	019
Time	8:15	8:20	8:40	10:27	10:28
Photo ID	7693	7694	760 fun	760 fun	PP
Location	BL				
Single or Multi-stem	Multi	Multi	Multi	Multi	Multi
# of Plants	20+	2	3	3	1
Acreage est.	4				
Stand Area Density	120x20	2x2	2x2'	2x2'	2x2'
Size Colony S=0-5, M=6-50, L=>50~	M	S	diff. loc. S	S	S
Plant Height ~ Ft	3-4'	3-4'	3-4'	3-4'	3-4'
Flowering %	50%	50%	50%	50%	50%
Beetle Feeding?	NO	?	?	?	?
Plant Vigor (Very poor to good)	good	good	good	good	good
Plant Removed (explain)	too many	out of reach	out of reach	out of reach	PPilled

Information					
Site	PL009	PL005	PL054	PL05B	PL10A
Time	10:32				10:58
Photo ID	7695	7696	NA	7697	NA
Location	Mud Slats	Edge	wild Rice		
Single or Multi-stem	Multi	0	Multi	Multi	Multi
# of Plants	3	4	1	5	1
Acreage est.					
Stand Area Density	2x1'	2x1'	2x2	2x2	1x1
Size Colony S=0-5, M=6-50, L=>50~	S	S	S	S	S
Plant Height ~ Ft	3-4'	"	"	3-4'	3'
Flowering %	75%	75%	75%	75%	75%
Beetle Feeding?	?	?	?	?	?
Plant Vigor (Very poor to good)	good	good	good	good	good
Plant Removed (explain)	NO	PPilled	Shallow	water	water

Other Species Observed: _____

Purple Loosestrife Survey

Clam River

Hydroelectric Project - FERC # 9185

Page 2 of 2

Date: 8-20-18 Conducted By _____

HWL _____ TWL _____ CFS _____ Equipment Used: _____

Air Temp: _____ °C Wind Speed: _____ Barometer: _____ Sky Conditions: _____

Time Survey Started _____ Time Survey Ended _____ 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	PL008	L021	024	PL8A	024 ^{soon}
Time					
Photo ID	7698	7699	7700	7701	7702
Location					
Single or Multi-stem	Multi	Multi	Multi	Multi	Multi
# of Plants	20+	8	3	3	3
Acreage est.					
Stand Area Density	10x15		2x6	2x2	2x2 2x2
Size Colony S=0-5, M=6-50, L=>50~	M	S-M	S	S	S
Plant Height ~ Ft					
Flowering %	yes	yes	yes	yes	yes
Beetle Feeding?	yes?	yes	yes	yes	yes
Plant Vigor (Very poor to good)	Good	Good	Good	Good	Good
Plant Removed (explain)	out reach	entry reach	loc without	wetland	wetland

Information					
Site	022	PL8B	PL003	PL013	PL023
Time	11:14	11:16	11:20	11:29	
Photo ID		7704	7705	7706	7707 + 7708
Location					
Single or Multi-stem	Multi	Multi	Multi	Multi	Multi
# of Plants	20+	20+	20+	10+	
Acreage est.					1 acre
Stand Area Density	200x50	2x8	50x50	15x15	
Size Colony S=0-5, M=6-50, L=>50~	L	M	M	M	L
Plant Height ~ Ft	3-4'	4'	4'	4'	4'
Flowering %	70%	70%	70%	70%	70%
Beetle Feeding?					
Plant Vigor (Very poor to good)	Good	Good	Good	Good	Good
Plant Removed (explain)	NO	Too many	Too many	Too many	Too many

extended along center wetland

Other Species Observed:

Blue Heron wood turtle Bald eagle

Remember to go earlier in August

Purple Loosestrife Survey

Clam River Hydroelectric Project – FERC # 9185 Page 3 of 3

Date: 8-2018 Conducted By Stina Warmbe

HWL _____ TWL _____ CFS _____ Equipment Used: _____

Air Temp: _____ °C Wind Speed: _____ Barometer: _____ Sky Conditions: _____

Time Survey Started _____ Time Survey Ended _____ Boat (14ft) 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	<u>PL009</u>				
Time					
Photo ID	<u>7709</u>				
Location					
Single or Multi-stem	<u>Multi</u>				
# of Plants	<u>50+</u>				
Acreage est.	<u>1/2 Acre</u>				
Stand Area Density					
Size Colony S=0-5, M=6-50, L=>50~	<u>L</u>				
Plant Height ~ Ft	<u>4'</u>				
Flowering %	<u>75%</u>				
Beetle Feeding?	<u>yes</u>				
Plant Vigor (Very poor to good)	<u>good</u>				
Plant Removed (explain)	<u>1 removed</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:

Purple Loosestrife Survey

Clam River Hydroelectric Project – FERC # 9185 Page 1 of 1

Date 8-20-18 Conducted By Stine Wernicke

HWL _____ TWL _____ CFS _____ Equipment Used: _____

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

Time Survey Started 9:00 Time Survey Ended 9:29 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)					

Other Species Observed:

Appendix D

Photos



Photo 1. Purple loosestrife growing near boat landing.



Photo 2. Purple loosestrife growing along the shoreline.



Photo 3. Purple loosestrife along wooded shoreline.

Appendix D
Beetle Information

Biology Department >!< <><
480 East James Avenue
Grantsburg, WI 54840
(715) 463-5165 ext. 112
(715) 338-7502 (cell)

From: Brian Kreuzscher [<mailto:bkreuscher@rwehydro.com>]
Sent: Tuesday, February 7, 2017 9:14 AM
To: Matt Berg <mberg@grantsburg.k12.wi.us>
Subject: Re: Galerucella Beetles

Matt,
That sounds reasonable to us. I've attached the report that White Water Associates had put together from the survey they did this last August. Appendix B has the location of all the sites. If you feel you might be underwater again this year, don't hesitate in letting us know, we might be able to help out. When do we need to get you the check?

Thanks
Brian Kreuzscher
Renewable World Energies
Regulatory Compliance
855-994-9376 x230

From: Matt Berg <mberg@grantsburg.k12.wi.us>
Sent: Tuesday, February 7, 2017 7:59 AM
To: Brian Kreuzscher
Subject: RE: Galerucella Beetles

Hi Brian – Missed your email until today as it was in the middle of 20 on-line journal submissions. We can definitely raise beetles again. In the past, we've charged \$0.10/beetle, but we came out a little underwater last time on the project so I might up it to \$400 if that sounds reasonable to you. The check would be made out to Grantsburg Science Club.

Let me know what you think, and I'll get you on my calendar.

Matt

Matthew S. Berg o
Grantsburg High School o
Biology Department >!< <><
480 East James Avenue
Grantsburg, WI 54840
(715) 463-5165 ext. 112
(715) 338-7502 (cell)

From: Brian Kreuzscher [<mailto:bkreuscher@rwehydro.com>]
Sent: Friday, February 3, 2017 1:34 PM
To: Matt Berg <mberg@grantsburg.k12.wi.us>
Subject: Galerucella Beetles

Matt,

Please let me introduce myself. My name is Brian Kreuzscher, I work with Renewable World Energies on Regulatory Compliance issues. Two years ago, in 2015, Gary Rast worked with you on raising and releasing Galerucella Beetles. I am contacting you to see if you would still be willing to raise the beetles as in the past, providing dispensing of the beetles, and small report with GPS coordinates of beetle placement? If so, RWE would like you to do it again in 2017 at the Clam Flowage as done in the past. Two years ago I see you had raised and released 4000 beetles. If you are willing, we would like you to continue with this, but reduce the amount to 3000 beetles for 2017. Please let me know if you are open to doing this for RWE, what the cost would be, and in the end who to send the check to.

Thanks

Brian Kreuzscher
Renewable World Energies
Regulatory Compliance
855-994-9376 x230

Purple Loosestrife Insect Release Field Report

Form 3200-117 (R 2011)

This form is designed to tell us where you have placed your purple loosestrife biocontrol insects, as well as give us important information about the receiving wetland. You are the only one who can give us this valuable information. And since purple loosestrife is a state-restricted plant under NR-40 regulations, reporting where you put loosestrife plants for distributing biocontrol beetles is required by law, (please report all biocontrol insect releases, even if not on potted plants). Use a GPS unit for latitude and longitude data and reading accuracy and/or describe the location completely. Estimate the numbers as best you can (e.g. a football field is ~ 1 acre). Thank you for your important contribution to the health of Wisconsin's wetlands!

Notice: Information on this voluntary form is collected under ss. 33.02 and 281.11, Wis. Stats. Personally identifiable information collected on this form will be incorporated into the DNR Surface Water Integrated Monitoring System (SWIMS) Database. It is not intended to be used for any other purposes, but may be made available to requesters under Wisconsin's Open Records laws, ss. 19.32 - 19.39, Wis. Stats.

Data Collector / Volunteer Names		
Primary Data Collector Name	Additional Data Collector Names	
Matt Berg	Grantsburg High School	
Phone Number	Email	Mailing Address
715-338-7502	saintcroixdfly@gmail.com	572 North Day Rd. (Home)/480 E. James Ave
Date and Time		
Date	Time	
7/5/17	4:13 PM	
Site Location		
County	Nearest City/Village/Town	
Burnett	Webster	
Location Description (ex. CTH K at Town Line Road)		
Clam River Flowage Inlet/Clam River Delta		
Latitude(WGS84 format)	Longitude(WGS84 format)	GPS Reading Accuracy
45.92033	-92.51709	15 meters
Landowner Name (and phone number if known):		
Land Ownership Type (circle one): private federal <u>state</u> county local government unknown		
Site Plant Data		
Acreage of Purple Loosestrife (circle one)	less than 1/4 acre	1/2-1 acre
		<u>1-10 acres</u>
		more than 10 acres
Purple Loosestrife Coverage on Large Sites (circle one)	0-25%	<u>26-50%</u>
		51-75%
		76-100%
Number of Purple Loosestrife Plants on Small Sites (circle one)	1-10	<u>50+</u>
	11-49	
Wetland location/type (circle all that apply): lake/pond edge <u>stream edge</u> roadside wooded area ditch field other _____		
Site Insect Release Details		
Was a stake or flag used to mark site? Yes <u>No</u> Type _____	Specific directions (ex. ~100 ft in from side of road)	
If returning to site, was stake or flage found? Type _____	Launch boat at Hap's Landing at Clam Flowage. Take south channel upstream to Clam River. Plants are on north side of the channel.	
Photo File Name(s):		
<u>IMG_5440</u>		
Method of Release(circle one)	# of potted plants	# of adult beetles released
<u>potted plants with beetles</u> just adult beetles	<u>30</u>	<u>3,000</u>
Weather (temp, wind, clouds)	Insect condition... (check all that apply)	
<u>Sunny, calm, 85°F</u>	<input checked="" type="checkbox"/> released in good condition? <input type="checkbox"/> released in poor condition? <input checked="" type="checkbox"/> pot placed next to field plant? <input checked="" type="checkbox"/> if releasing adults, placed directly on field plants? <input checked="" type="checkbox"/> tops of potted plants entwined with tops of field plants?	
Additional Comments:		
<u>This is the most plants we've ever found at general area. Previously couldn't access this area because the channel changed.</u>		

Please name photo files with site number and date and send to invasive.species@wi.gov. To enter data online, please visit <http://dnr.wi.gov/invasives/loosestrife>.

Send completed data sheets to Dept. Of Natural Resources - WT/4, P.O. Box 7921, Madison WI 53791-9087

Questions regarding purple loosestrife? Please call the Purple Loosestrife Program at 608-221-6349. Questions regarding data entry? Please contact 608-266-0053

Data Collector / Volunteer Names		
Primary Data Collector Name	Matt Berg	
Phone Number	Email	Additional Data Collector Names
715-338-7522	Saintcroixdfly@gmail.com	Grantsburg High School
Date and Time		Mailing Address
Date	Time	480 E James Ave, Grantsburg, WI
7-5-17	5:06 PM	54840
Site Location		
Site Name	County	Nearest City/Village/Town
Clam Flowage	Burnett	Webster
Location Description (ex. CTH K at Town Line Road)		
Clam River Flowage Inlet/Clam River Flowage Delta		
Latitude(WGS84 format)	Longitude(WGS84 format)	GPS Reading Accuracy
45.91969	-92.51687	15 meters
Landowner Name (and phone number if known):		
Land Ownership Type (circle one): private federal <u>state</u> county local government unknown		
Site Plant Data		
Acreage of Purple Loosestrife (circle one)	less than 1/4 acre	1/2-1 acre
		<u>1-10 acres</u>
		more than 10 acres
Purple Loosestrife Coverage on Large Sites (circle one)	0-25%	<u>26-50%</u>
		51-75%
		76-100%
Number of Purple Loosestrife Plants on Small Sites (circle one)	1-10	11-49
		<u>50+</u>
Wetland location/type (circle all that apply): lake/pond edge <u>stream edge</u> roadside wooded area ditch field other _____		
Site Insect Release Details		
Was a stake or flage used to mark site? Yes <u>No</u> Type _____	Specific directions (ex. ~100 ft in from side of road)	
If returning to site, was stake or flage found? Type _____	Launch boat at Hap's Landing at Clam Flowage. Take central channel upstream to Clam River. Plants are on south side of channel	
Photo File Name(s):		
Method of Release(circle one)	# of potted plants	# of adult beetles released
<u>potted plants with beetles</u> just adult beetles	<u>30</u>	<u>3,000</u>
Weather (temp, wind, clouds)	Insect condition... (check all that apply)	
Sunny, calm, 85°F	<input checked="" type="checkbox"/> released in good condition? <input type="checkbox"/> released in poor condition? <input checked="" type="checkbox"/> pot placed next to field plant? <input checked="" type="checkbox"/> if releasing adults, placed directly on field plants? <input checked="" type="checkbox"/> tops of potted plants entwined with tops of field plants?	
Additional Comments:		
This is the most plants we've ever found in this area. First time accessing this area because channel has changed.		

Please name photo files with site number and date and send to invasive.species@wi.gov. To enter data online, please visit <http://dnr.wi.gov/invasives/loosestrife>.

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Questions regarding purple loosestrife? Please call the Purple Loosestrife Program at 608-221-6349. Questions regarding data entry? Please contact 608-266-0053.



Grantsburg Schools

"Providing Excellence In Education"

Grantsburg High School Biology

Matthew S. Berg, Biology Teacher

mberg@grantsburg.k12.wi.us

480 E. James Avenue

Grantsburg, WI 54840

715-463-5165 (ext. 112) 715-338-7502 (cell)



In spring 2017, Grantsburg High School was contacted by Brian Kreuzer who works with Renewable World Energies Regulatory Compliance division. The company operates the hydroelectric dam on the Clam Flowage, and a survey performed for them in 2016 showed significant Purple Loosestrife in the Clam River upstream from the flowage. To mitigate this, RWE requested that GHS students raise and release at least 3000 beetles.

In April, GHS students travelled to a wetland just north of Poquettes Lake, gathered rootstock, and planted 60 pots of PL in a mass rearing station at the high school. Burnett County Land and Water Conservation Department delivered parent Galerucella Beetles in May, and, despite cold and wet conditions, each pot produced about 100 larvae/beetles. These approximately 6,000 larvae/beetles were transported to the Clam Flowage on July 5 (Figure 1).

The Clam River's braided channel that enters the Clam Flowage is shallow and, during previous beetle releases, has been impossible for us to navigate except for the most eastern channel. However, in 2017, we were able to enter the far western channel for the first time and found a large area of purple loosestrife that we have never released beetles in before. In this area, we released 30 pots of beetles placing them directly on the PL plants at the site. We also followed the channel until we ran out of water. In this seam, the only PL occurred at the release site (Figure 2). The middle channel, which also was historically difficult to impossible to enter during this time of year, was also accessible. In this area, we found more PL than we have ever seen anywhere in the delta (Figure 3). Because of this, we decided to divide the remaining 30 pots between the north and south sides of the bed with the north side getting 10 pots and the south side getting the remaining 20 pots.

A final Purple Loosestrife Insect Release Field Report was mailed to Brock Woods, WDNR PL coordinator on July 11, 2017. This completes our contract with RWE as outlined in our initial agreement.

Sincerely,

Matthew S. Berg

Grantsburg High School Biology

Figure 1: Boat Loaded with PL Pots



Figure 2: 2017 Release Sites

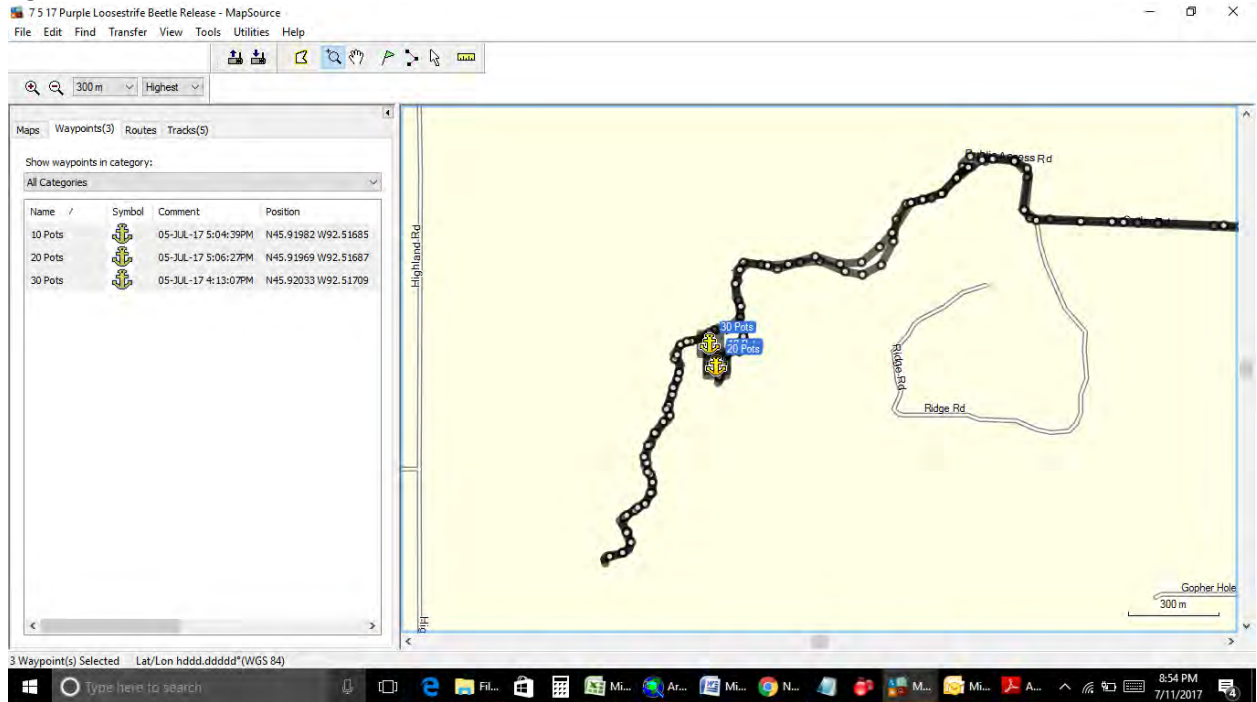


Figure 3: Significant Area of Purple Loosestrife in the central channel/site 2.



Brian Kreuscher

From: Brian Kreuscher
Sent: Thursday, December 13, 2018 4:43 PM
To: Cheryl Laatsch; Nick Utrup
Subject: Danbury (P-9184), Clam River (P-9185) Draft Purple Loosestrife Reports
Attachments: Danbury PL Report 2018_COMPLETE.pdf; Clam River PL Report 2018_COMPLETE.pdf

Cheryl and Nick,

Attached are copies of the Purple Loosestrife Reports for the surveys conducted at Danbury (P-9184) and Clam River (P-9185). Beetles were released in 2017 in the Clam Flowage, while 2018 was a survey year.

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

Thanks
Brian Kreuscher
Renewable World Energies
Regulatory & Compliance
855-994-9376 x230