



February 6, 2017

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

**Re: Danbury Hydroelectric Project FERC #9184
Flambeau Hydro, LLC
Article 401 (b) (M) – Final 2016 Purple Loosetrife Inventory Report**

Dear Ms. Bose:

On behalf of Flambeau Hydro, LLC (Licensee), Renewable World Energies LLC is submitting the *Final 2016 Purple Loosetrife Inventory Report* for the Danbury 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 September 5, 2006. 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 by attachment to an e-mail on January 5, 2016. The letter and e-mail asked for comment if the agencies 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 2, 2016. It began on the Impoundment, continued to the FHLLC – Owned Property, and ended with the Tailrace. No Purple Loosetrife was observed during the survey. However, wildlife such as Eagles and Turtles along with cattails were observed. Since no Purple Loosetrife was observed, no Galerucella Beetles are scheduled to be released in 2017. The next survey and report will be due in 2018.

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

Corporate Office
P.O. Box 264
100 S. State Street
Neshkoro, WI 54960
Fax: 920-293-4100

Phone: 855-99HYDRO
(855-994-9376)
www.renewableworldenergies.com

Administrative Office
1001 Stephenson Street
Norway, MI 49870
Fax: 906-563-9344



Corporate Office
P.O. Box 264
100 S. State Street
Neshkoro, WI 54960
Phone: 855-99HYDRO
Fax: 920-293-4100
www.renewableworldenergies.com

Sincerely,
Renewable World Energies, LLC
Agent for Licensee

A handwritten signature in black ink, appearing to read "JK", is written over a horizontal line.

Mr. Jason Kreuzscher
Vice President, Operation

Handwritten initials "FV" in black ink, positioned to the left of the signature block.

Attachment: Final Danbury 2016 Purple Loosetrife Inventory Report

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

2016 Purple Loosestrife Inventory
for
Danbury Hydroelectric Project
FERC Project #9184
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 Danbury Hydroelectric Project, FERC #9184

On August 2, 2016, White Water Associates, Inc. performed an inventory of purple loosestrife at the Danbury Hydroelectric Project. This is a requirement of Article 401 (b) amended April 23, 2013 of the License issued to Flambeau Hydro LLC by the Federal Energy Regulatory Commission (FERC) (September 5, 2006). 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.

2016 Observations

The Danbury Project boundary was divided into three different areas; *the impoundment* (from the Danbury powerhouse #2 to the County HWY U bridge approximately 6.0 miles upstream), *FHLLC-owned property within the project boundary* (FHLLC-owned property adjacent to the dams and powerhouses), and *the tailrace* (from the powerhouse #1 to a point approximately 2,500 feet downstream, including the 200 foot long tailrace area of powerhouse #2).

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

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

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

Appendix A provides tables of historical purple loosestrife data. Appendix B provides scans of field data sheets.

Appendix A

Tables

| Table 1. GPS points for purple loosestrife inventory at Danbury, FERC#9184. | | | | | |
|--|-----------------|------------------|---------------------|-------------------|--|
| <i>GPS Point</i> | <i>Latitude</i> | <i>Longitude</i> | <i>Plant Height</i> | <i>Stand Area</i> | <i>Comments</i> |
| DNBYPL001 | 45.94743 | -92.41280 | N/A | N/A | 2007-first observed. Plants cut at base. 2008-no plants observed. 2009-1 plant observed and pulled. 2010, 2011, 2012, 2013 & 2014-no plants observed. 2016-no plants observed. |

Appendix B

Scans of Datasheets

Purple Loosestrife Survey

Danbury Hydroelectric Project – FERC # 9184 Page ___ of ___

Date 8-2-16 Conducted By Stine Plummer

HWL 929.15 TWL Below gauge CFS 323 Equipment Used: _____

Air Temp: 84 °F Wind Speed: SW 2-4 Barometer: 30.10 Sky Conditions: cloudy

Time Survey Started 9:45 Time Survey Ended 1:45 pm (Boat (14ft) or Canoe) and/or Foot

Latitude Start Boat landing Longitude End Boat landing

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

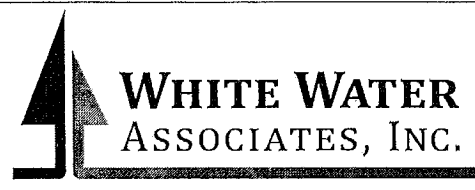
Description of Location Danbury powerhouse #2 to City Hwy A bridge approx 6 mile upstream

Purple Loosestrife Found: Yes or No Historic Info: 3hrs 45min (boat) NO PL 1 site 2007 DANBY CO1

| | | | |
|---|-------|---|---------------------|
| Site: | Time: | Latitude: | Longitude: |
| Photo ID: | | Description of location: | |
| Species Name: | | Single Plant or Multi-stem | Actual # of Plants: |
| Acreage of Infestation (circle one) less than 1/2 acre 1/2-1 acre 1-10 acres more than 10 acres | | | |
| Location type (circle all that apply): impoundment/pond edge stream edge roadside wooded area ditch field other | | | |
| Stand Area Density (feet x feet): | | Size Colony (#plants): S = 0-5 M = 6-50 L = >50 ~ _____ | |
| Plant Height: 1 = <1 ft 2 = 1-2 ft 3 = 2-4 ft 4 = >4 ft ~ _____ feet | | | |
| Plant Flowering: 1 = <25% of plants 2 = 26-50% of plants 3 = 51-99% of plants 4 = 100% of plants | | | |
| Beetle Feeding: 1 = 76-100% feeding 2 = 51-75% feeding 3 = 25-50% feeding 4 = 0-25% feeding | | | |
| Total plant vigor: 0-3 = very poor 4-6 = poor 7-9 = fair 10-12 = good | | | |
| Plant Removed: Yes No | | Description: | |

| | | | |
|--|-------|---|---------------------|
| Site: | Time: | Latitude: | Longitude: |
| Photo ID: | | Description of location: | |
| Species Name: | | Single Plant or Multi-stem | Actual # of Plants: |
| Acreage of Infestation (circle one) less than 1/2 acre 1/2-1 acre 1-10 acres more than 10 acres | | | |
| Location type (circle all that apply): impoundment /pond edge stream edge roadside wooded area ditch field other | | | |
| Stand Area Density (feet x feet): | | Size Colony: S = 0-5 M = 6-50 L = >50 ~ _____ | |
| Plant Height: 1 = <1 ft 2 = 1-2 ft 3 = 2-4 ft 4 = >4 ft ~ _____ feet | | | |
| Plant Flowering: 1 = <25% of plants 2 = 26-50% of plants 3 = 51-99% of plants 4 = 100% of plants | | | |
| Beetle Feeding: 1 = 76-100% feeding 2 = 51-75% feeding 3 = 25-50% feeding 4 = 0-25% feeding | | | |
| Total plant vigor: 0-3 = very poor 4-6 = poor 7-9 = fair 10-12 = good | | | |
| Plant Removed: Yes or No | | Description: | |

*6 feet (10) site
1200' 2.5' h
2 samples*



| | | | |
|--|-------|---|---------------------|
| Site: | Time: | Latitude: | Longitude: |
| Photo ID: | | Description of location: | |
| Species Name: | | Single Plant or Multi-stem | Actual # of Plants: |
| Acreage of Infestation (circle one) less than 1/2 acre 1/2-1 acre 1-10 acres more than 10 acres | | | |
| Location type (circle all that apply): impoundment /pond edge stream edge roadside wooded area ditch field other | | | |
| Stand Area Density (feet x feet): | | Size Colony: S = 0-5 M = 6-50 L = >50 ~ _____ | |
| Plant Height: 1 = <1 ft 2 = 1-2 ft 3 = 2-4 ft 4 = >4 ft ~ _____ feet | | | |
| Plant Flowering: 1 = <25% of plants 2 = 26-50% of plants 3 = 51-99% of plants 4 = 100% of plants | | | |
| Beetle Feeding: 1 = 76-100% feeding 2 = 51-75% feeding 3 = 25-50% feeding 4 = 0-25% feeding | | | |
| Total plant vigor: 0-3 = very poor 4-6 = poor 7-9 = fair 10-12 = good | | | |
| Plant Removed: Yes No | | Description: | |

| | | | |
|--|-------|---|---------------------|
| Site: | Time: | Latitude: | Longitude: |
| Photo ID: | | Description of location: | |
| Species Name: | | Single Plant or Multi-stem | Actual # of Plants: |
| Acreage of Infestation (circle one) less than 1/2 acre 1/2-1 acre 1-10 acres more than 10 acres | | | |
| Location type (circle all that apply): impoundment /pond edge stream edge roadside wooded area ditch field other | | | |
| Stand Area Density (feet x feet): | | Size Colony: S = 0-5 M = 6-50 L = >50 ~ _____ | |
| Plant Height: 1 = <1 ft 2 = 1-2 ft 3 = 2-4 ft 4 = >4 ft ~ _____ feet | | | |
| Plant Flowering: 1 = <25% of plants 2 = 26-50% of plants 3 = 51-99% of plants 4 = 100% of plants | | | |
| Beetle Feeding: 1 = 76-100% feeding 2 = 51-75% feeding 3 = 25-50% feeding 4 = 0-25% feeding | | | |
| Total plant vigor: 0-3 = very poor 4-6 = poor 7-9 = fair 10-12 = good | | | |
| Plant Removed: Yes or No | | Description: | |

Other Species Observed: possible narrow leaf cattail
umbrella papyrus, 1 note

Other Pertinent Survey Information: _____

Historic Purple Loosestrife: _____

Signature [Handwritten Signature]

Signature _____

* If colonies less than 20 plants are located on lands owned by RWE within the Project Boundary, RWE will take appropriate steps to eliminate plants at time of detection. For stands larger than 20 plants located on lands owned by RWE within the Project boundary, RWE will consult with the WDNR and USFWS to determine control methods.



Purple Loosestrife Survey

Danbury Hydroelectric Project – FERC # 9184 Page ___ of ___

Date 8-21-16 Conducted By Steve Plummer

HWL 929.15 TWL Below CFS 323 Equipment Used: _____

Air Temp: 89 °C Wind Speed: 3500 mph Barometer: 30.0 Sky Conditions: Cloudy

Time Survey Started 2:00 P.M. Time Survey Ended 3:00 Boat (14ft or Canoe) and/or Foot

Latitude Start _____ Longitude End _____

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

Description of Location Powerhouse #1 to a point ~ 2500 feet downstream including the 200 foot long tailrace of powerhouse #2.

Purple Loosestrife Found: Yes or No Historic Info: first 2014 no PL

| | | | |
|---|-------|---|---------------------|
| Site: | Time: | Latitude: | Longitude: |
| Photo ID: | | Description of location: | |
| Species Name: | | Single Plant or Multi-stem | Actual # of Plants: |
| Acreage of Infestation (circle one) less than 1/2 acre 1/2-1 acre 1-10 acres more than 10 acres | | | |
| Location type (circle all that apply): impoundment/pond edge stream edge roadside wooded area ditch field other | | | |
| Stand Area Density (feet x feet): | | Size Colony (#plants): S = 0-5 M = 6-50 L = >50 ~ _____ | |
| Plant Height: 1 = <1 ft 2 = 1-2 ft 3 = 2-4 ft 4 = >4 ft | | ~ _____ feet | |
| Plant Flowering: 1 = <25% of plants 2 = 26-50% of plants 3 = 51-99% of plants 4 = 100% of plants | | | |
| Beetle Feeding: 1 = 76-100% feeding 2 = 51-75% feeding 3 = 25-50% feeding 4 = 0-25% feeding | | | |
| Total plant vigor: 0-3 = very poor 4-6 = poor 7-9 = fair 10-12 = good | | | |
| Plant Removed: Yes No | | Description: | |

| | | | |
|---|-------|---|---------------------|
| Site: | Time: | Latitude: | Longitude: |
| Photo ID: | | Description of location: | |
| Species Name: | | Single Plant or Multi-stem | Actual # of Plants: |
| Acreage of Infestation (circle one) less than 1/2 acre 1/2-1 acre 1-10 acres more than 10 acres | | | |
| Location type (circle all that apply): impoundment/pond edge stream edge roadside wooded area ditch field other | | | |
| Stand Area Density (feet x feet): | | Size Colony: S = 0-5 M = 6-50 L = >50 ~ _____ | |
| Plant Height: 1 = <1 ft 2 = 1-2 ft 3 = 2-4 ft 4 = >4 ft | | ~ _____ feet | |
| Plant Flowering: 1 = <25% of plants 2 = 26-50% of plants 3 = 51-99% of plants 4 = 100% of plants | | | |
| Beetle Feeding: 1 = 76-100% feeding 2 = 51-75% feeding 3 = 25-50% feeding 4 = 0-25% feeding | | | |
| Total plant vigor: 0-3 = very poor 4-6 = poor 7-9 = fair 10-12 = good | | | |
| Plant Removed: Yes or No | | Description: | |



| | | | |
|--|-------|---|---------------------|
| Site: | Time: | Latitude: | Longitude: |
| Photo ID: | | Description of location: | |
| Species Name: | | Single Plant or Multi-stem | Actual # of Plants: |
| Acreage of Infestation (circle one) less than 1/2 acre 1/2-1 acre 1-10 acres more than 10 acres | | | |
| Location type (circle all that apply): impoundment /pond edge stream edge roadside wooded area ditch field other | | | |
| Stand Area Density (feet x feet): | | Size Colony: S = 0-5 M = 6-50 L = >50 ~ _____ | |
| Plant Height: 1 = <1 ft 2 = 1-2 ft 3 = 2-4 ft 4 = >4 ft ~ _____ feet | | | |
| Plant Flowering: 1 = <25% of plants 2 = 26-50% of plants 3 = 51-99% of plants 4 = 100% of plants | | | |
| Beetle Feeding: 1 = 76-100% feeding 2 = 51-75% feeding 3 = 25-50% feeding 4 = 0-25% feeding | | | |
| Total plant vigor: 0-3 = very poor 4-6 = poor 7-9 = fair 10-12 = good | | | |
| Plant Removed: Yes No | | Description: | |

| | | | |
|--|-------|---|---------------------|
| Site: | Time: | Latitude: | Longitude: |
| Photo ID: | | Description of location: | |
| Species Name: | | Single Plant or Multi-stem | Actual # of Plants: |
| Acreage of Infestation (circle one) less than 1/2 acre 1/2-1 acre 1-10 acres more than 10 acres | | | |
| Location type (circle all that apply): impoundment /pond edge stream edge roadside wooded area ditch field other | | | |
| Stand Area Density (feet x feet): | | Size Colony: S = 0-5 M = 6-50 L = >50 ~ _____ | |
| Plant Height: 1 = <1 ft 2 = 1-2 ft 3 = 2-4 ft 4 = >4 ft ~ _____ feet | | | |
| Plant Flowering: 1 = <25% of plants 2 = 26-50% of plants 3 = 51-99% of plants 4 = 100% of plants | | | |
| Beetle Feeding: 1 = 76-100% feeding 2 = 51-75% feeding 3 = 25-50% feeding 4 = 0-25% feeding | | | |
| Total plant vigor: 0-3 = very poor 4-6 = poor 7-9 = fair 10-12 = good | | | |
| Plant Removed: Yes or No | | Description: | |

Other Species Observed: 2 species

Other Pertinent Survey Information: _____

Historic Purple Loosestrife: _____

Signature [Signature] Signature _____

* If colonies less than 20 plants are located on lands owned by RWE within the Project Boundary, RWE will take appropriate steps to eliminate plants at time of detection. For stands larger than 20 plants located on lands owned by RWE within the Project boundary, RWE will consult with the WDNR and USFWS to determine control methods.



Purple Loosestrife Survey

Danbury Hydroelectric Project – FERC # 9184 Page ___ of ___

Date 8-2-16 Conducted By Stine Plummer

HWL 929.15 TWL 929.15 CFS 323 Equipment Used: _____

Air Temp: 81 °C Wind Speed: SW 6 mph Barometer: 30.0 Sky Conditions: cloudy

Time Survey Started 2:30 Time Survey Ended 3:00 Boat (14ft or Canoe) and/or Foot

Latitude Start _____ Longitude End _____

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

Description of Location adjacent to dams and powerhouses

Purple Loosestrife Found: Yes or No Historic Info: foot - no PL 2014

| | | | |
|---|-------|---|---------------------|
| Site: | Time: | Latitude: | Longitude: |
| Photo ID: | | Description of location: | |
| Species Name: | | Single Plant or Multi-stem | Actual # of Plants: |
| Acreage of Infestation (circle one) less than 1/2 acre 1/2-1 acre 1-10 acres more than 10 acres | | | |
| Location type (circle all that apply): impoundment/pond edge stream edge roadside wooded area ditch field other | | | |
| Stand Area Density (feet x feet): | | Size Colony (#plants): S = 0-5 M = 6-50 L = >50 ~ _____ | |
| Plant Height: 1 = <1 ft 2 = 1-2 ft 3 = 2-4 ft 4 = >4 ft ~ _____ feet | | | |
| Plant Flowering: 1 = <25% of plants 2 = 26-50% of plants 3 = 51-99% of plants 4 = 100% of plants | | | |
| Beetle Feeding: 1 = 76-100% feeding 2 = 51-75% feeding 3 = 25-50% feeding 4 = 0-25% feeding | | | |
| Total plant vigor: 0-3 = very poor 4-6 = poor 7-9 = fair 10-12 = good | | | |
| Plant Removed: Yes No | | Description: | |

| | | | |
|---|-------|---|---------------------|
| Site: | Time: | Latitude: | Longitude: |
| Photo ID: | | Description of location: | |
| Species Name: | | Single Plant or Multi-stem | Actual # of Plants: |
| Acreage of Infestation (circle one) less than 1/2 acre 1/2-1 acre 1-10 acres more than 10 acres | | | |
| Location type (circle all that apply): impoundment/pond edge stream edge roadside wooded area ditch field other | | | |
| Stand Area Density (feet x feet): | | Size Colony: S = 0-5 M = 6-50 L = >50 ~ _____ | |
| Plant Height: 1 = <1 ft 2 = 1-2 ft 3 = 2-4 ft 4 = >4 ft ~ _____ feet | | | |
| Plant Flowering: 1 = <25% of plants 2 = 26-50% of plants 3 = 51-99% of plants 4 = 100% of plants | | | |
| Beetle Feeding: 1 = 76-100% feeding 2 = 51-75% feeding 3 = 25-50% feeding 4 = 0-25% feeding | | | |
| Total plant vigor: 0-3 = very poor 4-6 = poor 7-9 = fair 10-12 = good | | | |
| Plant Removed: Yes or No | | Description: | |



| | | | |
|--|---|---------------------|------------|
| Site: | Time: | Latitude: | Longitude: |
| Photo ID: | Description of location: | | |
| Species Name: | Single Plant or Multi-stem | Actual # of Plants: | |
| Acreage of Infestation (circle one) less than 1/2 acre 1/2-1 acre 1-10 acres more than 10 acres | | | |
| Location type (circle all that apply): impoundment /pond edge stream edge roadside wooded area ditch field other | | | |
| Stand Area Density (feet x feet): | Size Colony: S = 0-5 M = 6-50 L = >50 ~ _____ | | |
| Plant Height: 1 = <1 ft 2 = 1-2 ft 3 = 2-4 ft 4 = >4 ft ~ _____ feet | | | |
| Plant Flowering: 1 = <25% of plants 2 = 26-50% of plants 3 = 51-99% of plants 4 = 100% of plants | | | |
| Beetle Feeding: 1 = 76-100% feeding 2 = 51-75% feeding 3 = 25-50% feeding 4 = 0-25% feeding | | | |
| Total plant vigor: 0-3 = very poor 4-6 = poor 7-9 = fair 10-12 = good | | | |
| Plant Removed: Yes No | Description: | | |

| | | | |
|--|---|---------------------|------------|
| Site: | Time: | Latitude: | Longitude: |
| Photo ID: | Description of location: | | |
| Species Name: | Single Plant or Multi-stem | Actual # of Plants: | |
| Acreage of Infestation (circle one) less than 1/2 acre 1/2-1 acre 1-10 acres more than 10 acres | | | |
| Location type (circle all that apply): impoundment /pond edge stream edge roadside wooded area ditch field other | | | |
| Stand Area Density (feet x feet): | Size Colony: S = 0-5 M = 6-50 L = >50 ~ _____ | | |
| Plant Height: 1 = <1 ft 2 = 1-2 ft 3 = 2-4 ft 4 = >4 ft ~ _____ feet | | | |
| Plant Flowering: 1 = <25% of plants 2 = 26-50% of plants 3 = 51-99% of plants 4 = 100% of plants | | | |
| Beetle Feeding: 1 = 76-100% feeding 2 = 51-75% feeding 3 = 25-50% feeding 4 = 0-25% feeding | | | |
| Total plant vigor: 0-3 = very poor 4-6 = poor 7-9 = fair 10-12 = good | | | |
| Plant Removed: Yes or No | Description: | | |

Other Species Observed: _____

Other Pertinent Survey Information: _____

Historic Purple Loosestrife: _____

Signature  _____

Signature _____

* If colonies less than 20 plants are located on lands owned by RWE within the Project Boundary, RWE will take appropriate steps to eliminate plants at time of detection. For stands larger than 20 plants located on lands owned by RWE within the Project boundary, RWE will consult with the WDNR and USFWS to determine control methods.



CORRESPONDENCE

Brian Kreuscher

From: Jason Kreuscher
Sent: Thursday, January 05, 2017 2:00 PM
To: Laatsch, Cheryl - DNR (Cheryl.Laatsch@wisconsin.gov); 'Nick_Utrup@fws.gov'
Cc: Brian Kreuscher
Subject: 2016 Purple loosestrife reports
Attachments: Upper Flambeau PL Draft Report 2016complete.pdf; Clam River PL Draft Report 2016complete.pdf; Crowley PL Draft Report 2016complete.pdf; Danbury PL Draft Report 2016complete.pdf; Lower Flambeau PL Draft Report 2016complete.pdf; Pixley PL Draft Report 2016complete.pdf

Cheryl and Nick,

Attached are copies of the Purple Loosestrife Reports for the surveys conducted at Flambeau Upper (P-2640), Flambeau Lower (P-2421), Flambeau Pixley (P-2395), Flambeau Crowley (P-2473), Danbury (P-9184), and Clam River (P-9185)

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

Jason Kreuscher
Vice President
Renewable World Energies, LLC
100 State St.
PO Box 264
Neshkoro WI 54960
Phone: 855-99HYDRO ext 102
Cell 715-572-7602
jason@rwehydro.com