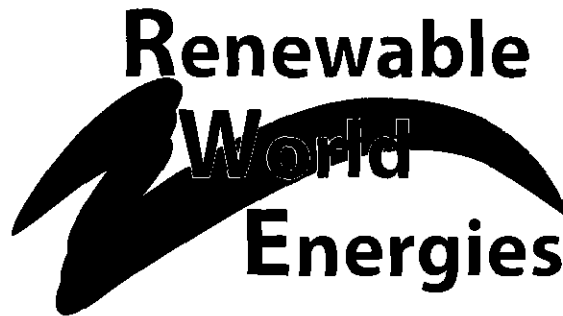


ORIGINAL



January 25, 2013

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

**Re: FINAL 2012 Purple Loosetrife Report Flambeau Hydro, LLC  
 Danbury Project #9184 Article 401(b)(M)  
 Clam River Project #9185 Article 401(b)(M)**

FILED  
 SECRETARY OF THE  
 COMMISSION  
 2013 FEB -1 A 9:11  
 FEDERAL ENERGY  
 REGULATORY COMMISSION

Dear Secretary Bose,

Enclosed you will find 1 original and 8 copies of the 2012 Purple Loosetrife Final Report conducted by Flambeau Hydro, LLC for the Danbury and Clam River hydroelectric projects. *By submittal of this letter and final reports we would like to make a minor modification to both plans. The changes, as recommended by the WDNR and approved by the US FWS, have been included on the final purple loosetrife reports for both projects.* As per the Federal Energy Regulatory Commission (FERC) Order of April 1, 2008 this annual report is respectfully submitted by Renewable World Energies, LLC on behalf of Flambeau Hydro, LLC.

Danbury

A purple loosetrife survey was completed on August 13, 2012 at the Danbury Project in Burnett County, Wisconsin. No purple loosetrife was observed.

Clam River

A purple loosetrife survey was completed on August 14, 2012 at the Clam River Project in Burnett County, Wisconsin. Due to increased silting and low water level of the river on the south side of the project, the crew could not gain close access to the major purple loosetrife infestations to get an accurate count. From a distance, using binoculars, the 10 acre section of CLRVPL003-CLRVPL004 and CLRVPL005 look like they are becoming 1 large area.

**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

Draft copies of the purple loosestrife reports for Danbury and Clam River were sent out to both the Wisconsin DNR and the US Fish and Wildlife Service on December 3, 2012. *In correspondence received on January 11, 2013 the WDNR recommended that both the Danbury and Clam River project sites be switched from an annual to a two year assessment and control plan.* They would like Galerucella beetles grown and released onto the largest purple loosestrife infestations to start controlling the amount of purple loosestrife in the project area. The US FWS, in correspondence dated January 18, 2013 concurred with the comments provided by the WDNR. Both sets of agency correspondence are attached in Appendix D.

As per the new plans as written up in the final Danbury and Clam River purple loosestrife reports, the next scheduled survey will be conducted in 2014. We will be able to start seeing in 2014 if the Galerucella beetles to be released in 2013 have had any adverse effect on the health of the purple loosestrife within the project boundaries.

If you have any questions concerning this survey please feel free to contact Aneta Rietveld at Renewable World Energies, LLC offices phone (855) 994-9376 ext. 108 or email at [arietveld@rwehydro.com](mailto:arietveld@rwehydro.com).

Sincerely,  
Renewable World Energies, LLC  
Agent for the Licensee,



for: Mr. Jason Kreuzscher  
Vice President Operations

Cc: RWE Corporate  
Mr. Peter Fasbender  
Ms. Cheryl Laatsch  
Mr. Craig Roestler

Attachment: Final 2012 Purple Loosestrife Report for Clam River and Danbury

# Appendix A

Danbury

FERC #9184

**Danbury Project Purple Loosestrife Inventory**  
**August 13, 2012**  
**FERC Project # 9184 Article 401(b)(M)**

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

*Purple Loosestrife*

On August 13, 2012, Flambeau Hydro, LLC (FHLLC) performed an inventory of purple loosestrife plants at the Danbury Project in Burnett County, Wisconsin. The method of inventory 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:**

GPS point CLRVPL001; Location Lat N45 54.493' Lon W92 31.128'; Plant height 2' – 6'; Density ~5' x 50' ~40 plants single & multi-stem; Comments. Insect damage observed. Seed heads removed. Photos. No Video.

The area to be inventoried shall be the shoreline of the impoundment and lands owned by FHLLC within the Project Boundary as indicated on the Project Boundary Map G-1, as filed with the Federal Energy Regulatory Commission.

**General 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), *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 tailrace was surveyed on foot 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 no purple loosestrife plants were observed.*

During the inventory, the following tools were used: boat with motor, GPS, binoculars, range finder, compass, and a digital camera.

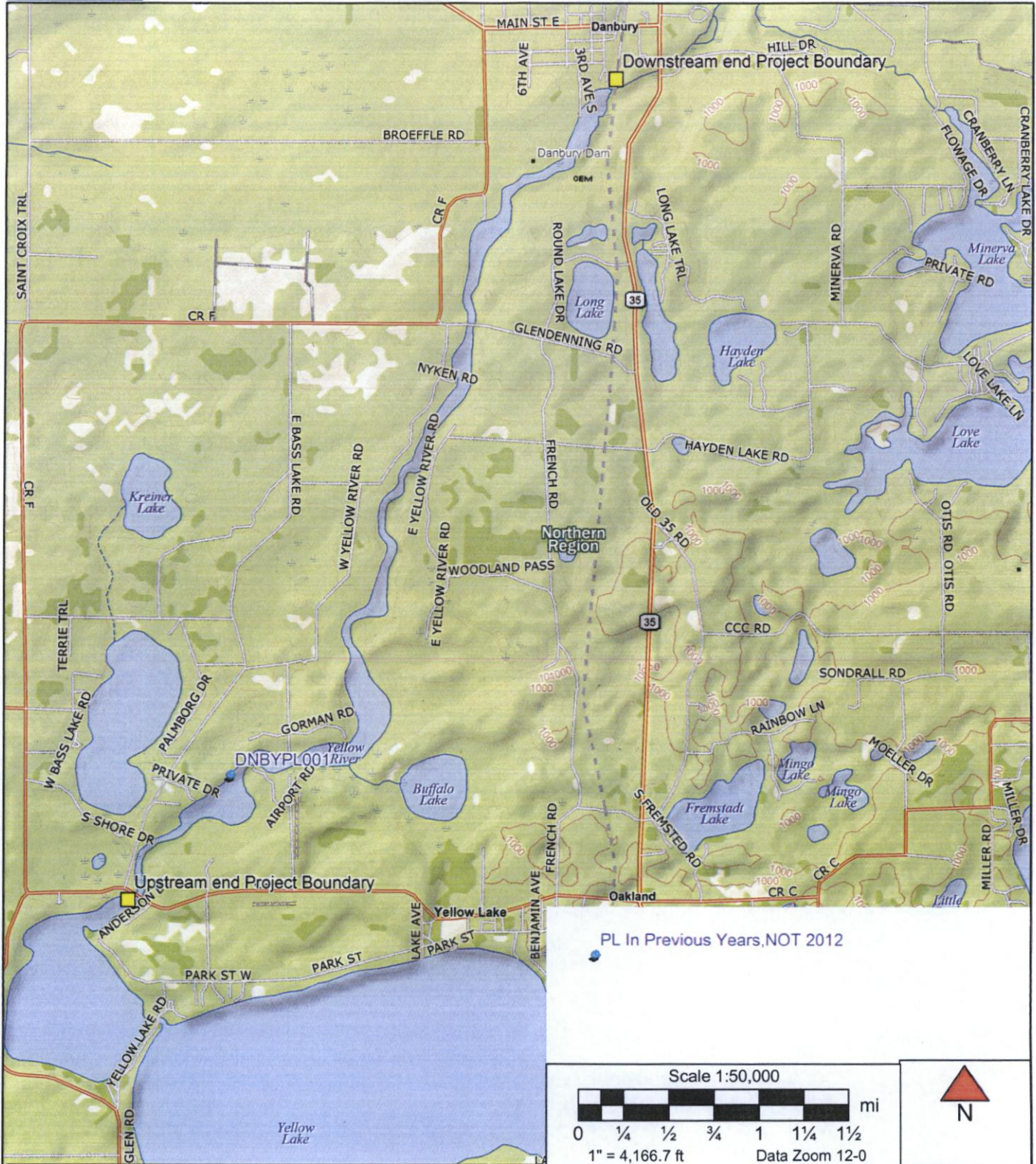
The Threatened and Endangered Species Protection Plan filed on March 9<sup>th</sup>, 2007, pursuant to article 408 of the Danbury Hydroelectric Project states: M- The licensee shall annually inspect the entire shoreline of the project waters for purple loosestrife (*Lythrum salicaria*) and other exotic species and map distributions and relative abundance. Inspections should be scheduled in August while plants are flowering so purple loosestrife can be readily identified. The licensee should submit a report of the monitoring results to the Department by December 31 of each year. If the Department deems it necessary to initiate or expand efforts to control purple loosestrife or other exotic species in the Yellow River, the licensee shall provide reasonable cooperation in these efforts.

***On January 11, 2013 Flambeau Hydro, LLC received comments back from the Wisconsin DNR about a change they wish us to make in the Threatened and Endangered Species Protection Plan.*** The FWS has also written that they agreed with the WDNR's plan change recommendations. The plan as written states the licensee will conduct annual surveys of purple loosestrife 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. ***The WDNR has recommended that the licensee change their annual Purple Loosestrife survey to a 2 year plan until further notice.*** The first year (2012 and every 2<sup>nd</sup> year thereafter) will include a survey of the Purple Loosestrife in the Danbury Project boundaries. The licensee will send a report with the survey results and any control methods used on purple loosestrife stands less than 20 plants to the WDNR and FWS by December 31 of each year, and will submit the report and any agency comments to the Commission by the following March 1. The second year of the plan will be for biological control of the purple loosestrife if any stands larger than 20 plants was found within the project boundaries. Smaller stands will be hand pulled at the time of the survey. If purple loosestrife plants are found in excess of 20 plants per stand we will be work with the Grantsburg school environmental science class to grow *Galerucella* beetles for release at the Danbury Hydroelectric Project. They have worked with the WDNR in past years to raise the beetles for control of Purple Loosestrife in Burnett County. During years when beetles are released the licensee will retain a record of the GPS coordinates, approximate number of beetles or larvae released at each coordinate, and if there is any beetle damage to the surrounding purple loosestrife plants before the release and include this information on a map and information matrix sent in with the survey data the next year.

**Purple Loosestrife Survey**

**Project:** Danbury #9184      **Datum:** WGS 84  
**Date:** August 13, 2012      **Page:** 1 of 1  
**Crew:** GGR and AKR

| Sighting # | GPS Point | Latitude    | Longitude  | Plant Height | Stand Area | Comments   |
|------------|-----------|-------------|------------|--------------|------------|--|
| 1          | DNBYPL001 | N45 56.846' | W92 24.768 | N/A          | N/A        | First observed in 2007. Located on left side of river in bogs. Plant was cut at the base in 2007, not found in 2008. Single plant found and pulled with root mass in 2009. Could not be located in 2010, 2011, or 2012. Photos in 2007 and 2009. |



# Danbury Purple Loosestrife Location Map 2012 Danbury, WI, FERC #9184



2012 DANBURY PURPLE LOOSESTRIFE SURVEY DAY



Year 2012 Purple Loosestrife/Erosion Survey

Danbury Hydroelectric Project - FERC # 9184

Date: 8-13-12 Conducted By: AKR GGR

HWL: 928.92 TWL: 899.00 Total Flow - 123

Time Survey Started: 1:15 pm Time Survey Ended: 5:00 pm

Weather Conditions: partly cloudy 77°

Location of Survey Area: Tailrace  Bypass Reach  Impoundment

Time of Sighting(s): \_\_\_\_\_

Location of Sighting(s) (GPS Coordinates): \_\_\_\_\_

(Attach Photos & Map if Applicable)

Purple Loosestrife: none

Erosion: \_\_\_\_\_ (Photos Taken) Yes \_\_\_\_\_ No \_\_\_\_\_

Other Species Observed: ducks, 3 blue herons  
Kingfishers

Other Pertinent Survey Information

none observed on postage trails or  
bypassed reach  
none observed on impoundment

*[Handwritten Signature]*

# Appendix B

Clam River

FERC #9185

**Clam River Project Purple Loosestrife Inventory**  
**August 14, 2012**  
**FERC Project # 9185 Article 401(b)(M)**

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

*Purple Loosestrife*

On August 14, 2012, Flambeau Hydro, LLC (FHLLC) performed an inventory of purple loosestrife plants at the Clam River Project in Burnett County, Wisconsin. The method of inventory 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:

GPS point CLRVPL001; Location Lat N45 54.493' Lon W92 31.128'; Plant height 2' – 6'; Density ~5' x 50' ~40 plants single & multi-stem; Comments. Insect damage observed. Seed heads removed. Photos. No Video.

The area to be inventoried shall be the shoreline of the impoundment and lands owned by FHLLC within the Project Boundary as indicated on the Project Boundary Map G-1, as filed with the Federal Energy Regulatory Commission.

General Observations:

The Clam River 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 *by-pass reach* (from the spillway to a point approximately 800 feet downstream).

The *by-pass reach* was surveyed on foot and no purple loosestrife plants were observed.

The *tailrace* was surveyed on foot 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 three areas of purple loosestrife plants were observed in 2012. Four areas may have been in bloom during the survey, but they were located in the southernmost part of the impoundment inaccessible by boat due to the amount of silt built up in the channel. Next year a canoe or kayak will be brought along in addition to the boat to aid in review of these low lying areas.

CLRVPL003 to CLRVPL004 make up a large 10 acre site in the higher ground of the bogs within wild rice beds of the southern end of the impoundment. This site was first observed in 2007. In 2009 the amount of plants observed at this site had declined with major reductions occurring in the northern half of the 10 acre site. Overall estimates of this site by the survey crew indicated an increase in the amount of plants in 2010, but less than in the 2007 and 2008 surveys. There appears to be a considerably greater amount of purple loosestrife plants at this location in 2011, specifically near the end of the wild rice beds. This area appeared to be melding together with GPS point CLRVPL005. Photos taken in 2012 with a digital camera show this area from around 100 feet away. This was as close as the crew could get with the increased silting of the riverbed and low water.

CLRVPL005 was first observed in 2007. In 2009 this site showed an increase in purple loosestrife, with the survey crew counting 30 plants where only four plants were visible in 2008. There were no changes at this site in 2009-2011. There appears to be a few more plants in the 2012 survey. GPS points CLRVPL003 and CLRVPL004 appear to be melding together with this site in 2012.

CLRVPL006, CLRVPL007, CLRVPL009, CLRVPL010, and CLRVPL011 located north of the boat launch were not observed during this survey year.

CLRVPL001, CLRVPL002, CLRVPL008, CLRVPL012, and CLRVPL013 were inaccessible due to increased silting of the channel and being located in low lying areas.

CLRVPL014 was first observed during the 2012 survey. There is one multi-stem plant located in a low lying area south of the boat launch. The crew could not get close enough for treatment.

No insect damage was noted at any of the occurrences at the project.

These purple loosestrife plants were inventoried and have been noted on the survey sheet and map at the end of this report. No other occurrences of purple loosestrife were observed.

During the inventory, the following tools were used: boat with motor, GPS, binoculars, range finder, compass, and a digital camera.

The land management plan filed on March 7<sup>th</sup>, 2007, pursuant to article 406 of the Clam River Hydroelectric Project states: On all land owned by the licensee within the project boundary, steps will be taken to eliminate colonies of less than 20 plants at the time of detection, but for larger stands the licensee will consult with the WDNR and FWS and then take action based on the agreed upon control methods.

***On January 11, 2013 Flambeau Hydro, LLC received comments back from the Wisconsin DNR about a change they wish us to make in the land management plan.*** The FWS has also written that they agreed with the WDNR's plan change recommendations. The plan as written states the licensee will conduct annual surveys of purple loosestrife by boat above the dam, and on foot or by boat below the dam, along the impoundment shoreline to elevation 900 feet mean sea level, and on foot on licensee-owned land within the project boundary. ***The WDNR recommended that the licensee change their annual Purple Loosestrife survey to a 2 year plan until further notice.*** The first year (2012 and every 2<sup>nd</sup> year thereafter) will include a survey of the Purple Loosestrife in the Clam River Project boundaries. The licensee will send a report with the survey results and any control methods used on purple loosestrife stands less than 20 plants to the WDNR and FWS by December 31 of each year, and will submit the report and any agency comments to the Commission by the following March 1. The second year of the plan will be for biological control of the purple loosestrife if any stand of 20 plants or more are found within the project boundaries. As per the WDNR we will be working with the Grantsburg school environmental science class to grow Galerucella beetles for release at the Clam River Hydroelectric Project. They have worked with the WDNR in past years to raise the beetles for control of Purple Loosestrife in Burnett County. They will begin raising Galerucella beetles in the spring of 2013 for release in the summer of 2013 at various locations within CLRVPL003-CLRVPL004, the largest area covered with purple loosestrife within the project. The licensee will retain a record of the GPS coordinates, approximate number of beetles or larvae released at each coordinate, and if there is any beetle damage to the surrounding purple loosestrife plants before the release and include this information on a map and information matrix sent in with the survey data the next year.

## Purple Loosestrife Survey

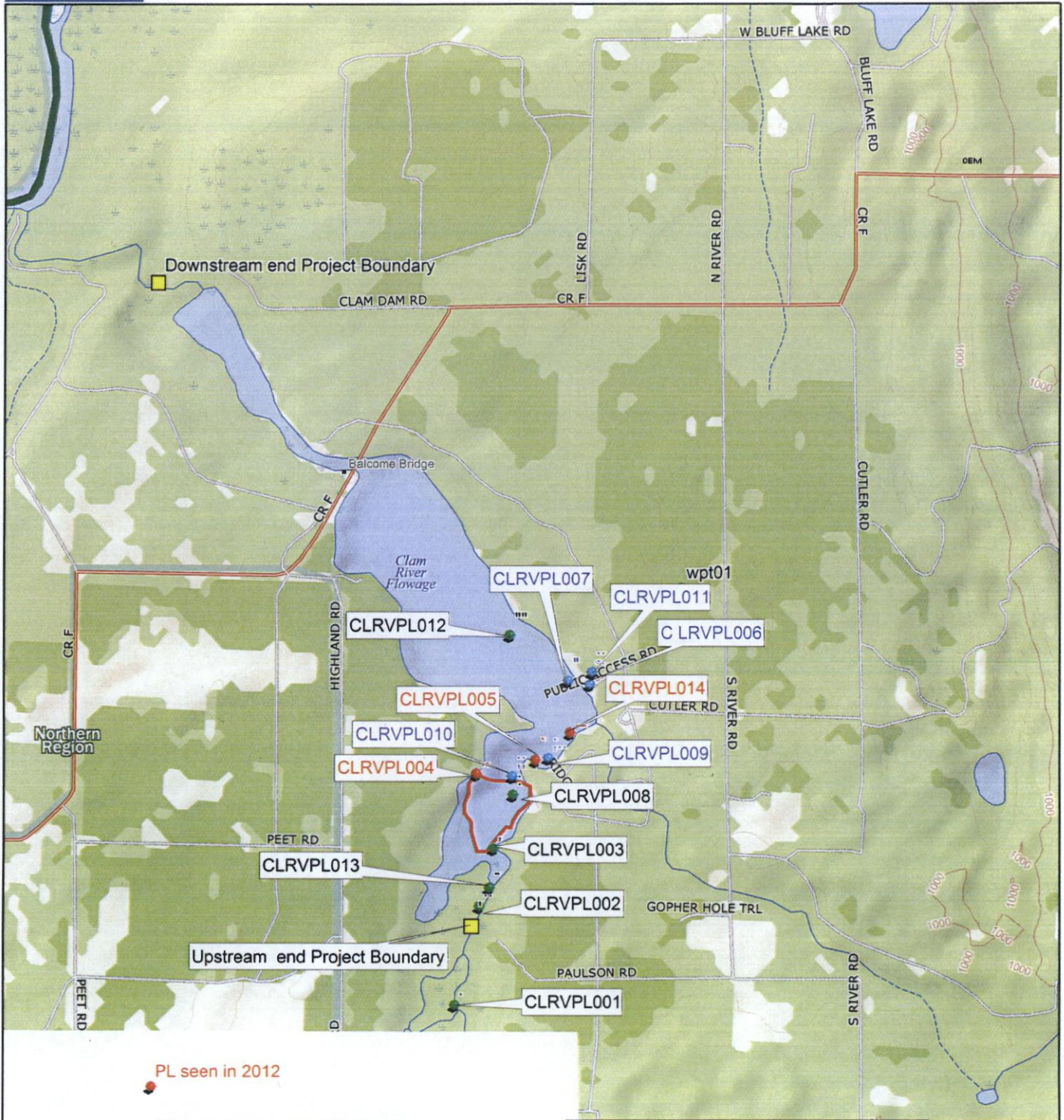
Project: Clam River #9185Datum: WGS 84Date: August 14, 2012Page: 1 of 2Crew: AKR & GGR

| GPS point              | Latitude                   | Longitude                  | Plant Height | Stand Area  | Comments   |
|------------------------|----------------------------|----------------------------|--------------|---|--|
| CLRVPL001              | N45 54.493'                | W92 31.128'                | N/A          | N/A   | First observed in 2007. Located 1500' upstream from the Project Boundary. No plants observed in 2008 and 2009. All plants pulled in 2007. <b>Site inaccessible in 2010, 2011, or 2012.</b> Video in 2007.  |
| CLRVPL002              | N45 54.812'                | W92 31.014'                | N/A          | N/A   | First observed in 2007. Located 150' West of GPS point. In 2009, some plants in full bloom, no old cane, and no beetle damage. No plants observed in 2008. No treatment in 2007 and 2009. No photos. Could not be located in 2010 or 2011. <b>Site inaccessible in 2012.</b>   |
| CLRVPL003<br>CLRVPL004 | N45 54.998'<br>N45 55.240' | W92 30.949'<br>W92 31.028' | 1' -7'       | 10 acres<br>~250 plants<br>multi-stem<br>and single<br>stem | First observed in 2007. Located on higher ground and bogs within wild rice on either side of the channel with the GPS Points as end-points. In 2009 and 2010 the amount of PL had declined with few plants visible in the northern half of the site. In 2011 and the amount of plants considerably increased. The area appears to be melding with the loosestrife at CLRVPL005. No beetle damage observed. Has never been treated. This occurrence was partially recorded on video in 2007. In 2012 the site was only viewable at a distance due to silting up of the channel. Photos taken in 2012. |
| CLRVPL005              | N45 55.284'                | W92 30.756'                | 4' -6'       | 15' x 15'<br>35 multi-<br>stem plants                       | First observed in 2007. Located 100' S of GPS point. No beetle damage observed, old cane is present, and most plants blooming in 2012. Appears to be melding with CLRVPL003 and CLRVPL004. No treatment from 2007-2012.  |
| CLRVPL006              | N45 55.529'                | W92 30.505'                | N/A          | N/A   | First observed in 2007. Located on right side of river and close to shoreline in low lying area. No beetle damage observed and no old cane present. All plants were pulled with root mass in 2007 & 2008. Seed heads clipped in 2009. No treatment in 2010. Approximately same number of plants in 2011. No photos. <b>No plants located in 2012.</b>  |

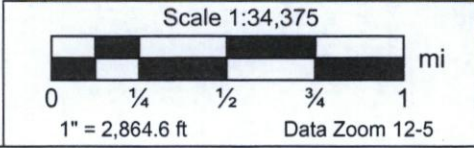
## Purple Loosestrife Survey

Project: Clam River #9185Date: August 14, 2012Crew: AKR & GGRDatum: WGS 84Page: 2 of 2

|           |             |             |     |                    |   |
|-----------|-------------|-------------|-----|--------------------|---|
| CLRVPL007 | N45 55.541' | W92 30.606' | N/A | N/A                | First observed in 2007. Location estimated. No insect damage or old cane was present. No treatment in 2007, 2008, 2009. <b>This plant could not be located in 2010, 2011, or 2012.</b> No photos.   |
| CLRVPL008 | N45 55.173' | W92 30.858' | N/A | N/A                | First observed in 2008. Located 470' S/SE of GPS point. No old cane present. Could not get close enough to determine beetle damage. No treatment in 2008, 2009, 2010, 2011. Photos in 2010. Number of plants increased in 2011. <b>Site inaccessible in 2012.</b> |
| CLRVPL009 | N45 55.292' | W92 30.697' | N/A | N/A                | First observed in 2009. Located 60' SSW of GPS point. No treatment in 2009. <b>This plant could not be located in 2010, 2011, or 2012.</b> No photos.   |
| CLRVPL010 | N45 55.233' | W92 30.863' | N/A | N/A                | First observed in 2009. Located on left side of river and close to shoreline in low lying area. No beetle damage. No treatment in 2009 and 2010. Three plants found in 2011. No Photos. <b>No plants located in 2012.</b>   |
| CLRVPL011 | N45 55.568' | W92 30.495' | N/A | N/A                | First observed in 2010. GPS point is estimated at 345' north of CLRV BR001 boat launch. Approx. 50 plants found again in 2011. No treatment either year. <b>No plants located in 2012.</b>  |
| CLRVPL012 | N45 55.685' | W92 30.874' | N/A | N/A                | First observed in 2010. Located on East side of impoundment and close to shoreline in low lying area. The site is located 83 yards East of GPS point. Three multi stem plants found in 2011. No treatment. <b>Site inaccessible in 2012.</b>                      |
| CLRVPL013 | N45 54.871' | W92 30.968' | N/A | N/A                | First observed in 2010. Located on left side of river and close to river's edge in low lying area. One plant found in 2011. No beetle damage. No treatment. <b>Site inaccessible in 2012.</b>   |
| CLRVPL014 | N45 55.372' | W92 30.596' | 5'  | 1 multi-stem plant | First observed in 2012. Located 115 yards ENE of GPS point. No treatment. Site not accessible.  |



- PL seen in 2012
- PL seen in prev. yrs, NOT 2012
- PL Inaccessible area 2012



# Clam River Purple Loosestrife Location Map 2012 Clam River Reservoir, FERC #9185





2012 Purple Loosestrife  
CLR V PL003-PL004



2012 Purple Loosestrife  
CLR V PL005

Year 2012 Purple Loosestrife/Erosion Survey

Clam River Hydroelectric Project - FERC # 9185

Date: 8-14-12 Conducted By: AKR GGR

HWL: 898.77 TWL: 863.10 TFlow-143

Time Survey Started: 11:15 Time Survey Ended: 12:40

Weather Conditions: clear, sunny

Location of Survey Area: Tailrace  (11:15-12:15) Bypass Reach  (12:15-12:40) Impoundment

Time of Sighting(s): \_\_\_\_\_

Location of Sighting(s) (GPS Coordinates): \_\_\_\_\_

(Attach Photos & Map if Applicable)

Purple Loosestrife: \_\_\_\_\_

Erosion: \_\_\_\_\_ (Photos Taken) Yes \_\_\_\_\_ No \_\_\_\_\_

Other Species Observed: blue herons, kingfishers, eagle  
2 eagles in nest, turtles (25 on log)

Other Pertinent Survey Information

no PL observed on tailwater or bypassed reach.

Year 2012 Purple Loosestrife/Erosion Survey

Clam River Hydroelectric Project - FERC # 9185

Date: 8-14-12 Conducted By: \_\_\_\_\_

HWL: 898.77 TWL: 863.10 T.Flow - 143

Time Survey Started: 10:30-11:15 + 1:15- Time Survey Ended: 4:15

Weather Conditions: partly cloudy, hot, no breeze

Location of Survey Area: Tailrace \_\_\_\_\_ Bypass Reach \_\_\_\_\_ Impoundment

Time of Sighting(s): \_\_\_\_\_

Location of Sighting(s) (GPS Coordinates): \_\_\_\_\_

(Attach Photos & Map if Applicable)

Purple Loosestrife: \_\_\_\_\_

Erosion: \_\_\_\_\_ (Photos Taken) Yes \_\_\_\_\_ No \_\_\_\_\_

Other Species Observed: \_\_\_\_\_

Other Pertinent Survey Information

see sheet for changes

# Appendix C

## Agency Comments

## Aneta Rietveld

---

**From:** Gary Rast  
**Sent:** Friday, January 11, 2013 12:03 PM  
**To:** Aneta Rietveld  
**Subject:** FW: Loosestrife reports - WDNR response

---

**From:** Laatsch, Cheryl - DNR [<mailto:Cheryl.Laatsch@Wisconsin.gov>]

**Sent:** Friday, January 11, 2013 11:15 AM

**To:** Gary Rast; Jason Kreuzscher

**Subject:** Loosestrife reports - WDNR response

Clam River – We would like to have another beetle release planned for this project area,. Please work with the county staff to locate beetles.

We also recommend that Danbury and Clam River sites be switched from annual to a two-year assessment and control plan.

Please let me know if you have any questions.

I have not heard back from the staff on the other sites, I will forward you the comments as soon as I get feedback.

*Cheryl Laatsch, Water Mgt Specialist*

*Horicon DNR*

*N7725 HIGHWAY 28*

*HORICON WI 53032*

*(920) 387-7869*

e-mail: [Cheryl.laatsch@wisconsin.gov](mailto:Cheryl.laatsch@wisconsin.gov)

Website: [dnr.wi.gov](http://dnr.wi.gov)

[www.facebook.com/WIDNR](http://www.facebook.com/WIDNR)

## Aneta Rietveld

---

**From:** Gary Rast  
**Sent:** Monday, December 17, 2012 10:04 AM  
**To:** Laatsch, Cheryl - DNR  
**Cc:** Aneta Rietveld  
**Subject:** RE: danbury and clam river

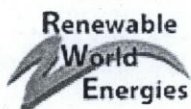
Cheryl,

Now we are getting somewhere. We are required to send out a draft to the agencies by I believe end of November for comment and to FERC by December 31. According to that date we were slightly late mostly because of the Deer Season/Thanksgiving holiday and will most likely be slightly late to FERC unless the agencies comment early. As I said earlier from Draft to Final not much gets changed in the reports themselves unless there are major issues. In the end you will be copied on the Finals as well. Aneta mostly did the reports so I am copying her for her record and so she can respond if needed.

Thanks for pointing it out.

Gary

Gary Rast  
Regulatory/Compliance Manager



Renewable World Energies, LLC  
100 S. State Street  
P.O. Box 264  
Neshkoro, WI 54960  
Phone: 855-994-9376 Ext. 105  
Fax: 920-293-4100  
Cell: 920-570-0995  
E-mail: [grast@rwehydro.com](mailto:grast@rwehydro.com)

---

**From:** Laatsch, Cheryl - DNR [<mailto:Cheryl.Laatsch@Wisconsin.gov>]  
**Sent:** Monday, December 17, 2012 9:48 AM  
**To:** Gary Rast  
**Subject:** RE: danbury and clam river

I have in my hand...

Dec 3, 2012 Clam River FERC 9185, DRAFT 2012 Purple Loosestrife Inventory.

I think that you maybe forgot to change the "draft" to "final".

*Cheryl Laatsch, Water Mgt Specialist*

*Horicon DNR  
N7725 HIGHWAY 28  
HORICON WI 53032  
(920) 387-7869*

e-mail: [Cheryl.laatsch@wisconsin.gov](mailto:Cheryl.laatsch@wisconsin.gov)  
Website: [dnr.wi.gov](http://dnr.wi.gov)  
[www.facebook.com/WIDNR](http://www.facebook.com/WIDNR)

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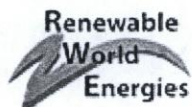
**From:** Gary Rast [<mailto:grast@rwehydro.com>]  
**Sent:** Monday, December 17, 2012 9:43 AM  
**To:** Laatsch, Cheryl - DNR  
**Cc:** Aneta Rietveld  
**Subject:** RE: danbury and clam river

Cheryl,

I assume you are talking WQ. I don't know if it is a mistake and your copies did not get the correct wording or what. Our records indicate that the Draft Danbury WQ was dated October 17 and send by letter dated October 19. The Final WQ was dated December 4 and sent by letter dated December 4. The Draft Clam River WQ was dated October 10 and sent by letter dated October 15. The Final WQ was dated December 3 and sent by letter dated December 3. I have copies of each in my file and they appear to be correct. The Finals were sent to FERC with the agencies Cc: If yours says draft I'm sure it is simply a mistake. Typically I only make changes if needed to the report based on comment from agencies. The cover page gets changed from Draft to Final and the date gets changed. The cover letter submits the report and attempts to address the comments in short form. Hope this helps.

Gary

Gary Rast  
Regulatory/Compliance Manager



Renewable World Energies, LLC  
100 S. State Street  
P.O. Box 264  
Neshkoro, WI 54960  
Phone: 855-994-9376 Ext. 105  
Fax: 920-293-4100  
Cell: 920-570-0995  
E-mail: [grast@rwehydro.com](mailto:grast@rwehydro.com)

---

**From:** Laatsch, Cheryl - DNR [<mailto:Cheryl.Laatsch@Wisconsin.gov>]  
**Sent:** Monday, December 17, 2012 9:16 AM  
**To:** Gary Rast  
**Subject:** danbury and clam river

Hi – I have these two reports dated Dec 3. They are notes as DRAFT. Is this correct, or at these the final reports that have been sent to FERC.

*Cheryl Laatsch, Water Mgt Specialist*

*Horicon DNR*

*N7725 HIGHWAY 28*

*HORICON WI 53032*

*(920) 387-7869*

e-mail: [Cheryl.laatsch@wisconsin.gov](mailto:Cheryl.laatsch@wisconsin.gov)

Website: [dnr.wi.gov](http://dnr.wi.gov)

[www.facebook.com/WIDNR](http://www.facebook.com/WIDNR)



## Aneta Rietveld

---

**From:** Utrup, Nick <nick\_utrup@fws.gov>  
**Sent:** Friday, January 18, 2013 11:07 AM  
**To:** Aneta Rietveld  
**Cc:** Peter Fasbender  
**Subject:** Loosestrife reports - FWS response

Aneta,

Regarding the Purple Loosestrife reports for the following FERC projects:

Clam River FERC #9185

Danbury FERC # 9184

Flambeau area (Upper #2640, Lower #2421, Pixley #2395, and Crowley #2473)

And Winter #2064

The FWS has no comments and concurs with comments already provided by WDNR. I appreciate having the opportunity to respond, please let me know if you have any questions.

Sincerely,

Nicholas J. Utrup

U.S. Fish and Wildlife Service  
Wisconsin Ecological Services Office  
2661 Scott Tower Drive  
New Franken, WI 54229

Office: (920) 866-1736  
Cell: (920) 530-9937  
FAX: (920) 866-1710  
Email: [Nick\\_Utrup@fws.gov](mailto:Nick_Utrup@fws.gov)

## Aneta Rietveld

---

**From:** Matt Berg <mberg@grantsburg.k12.wi.us>  
**Sent:** Wednesday, January 16, 2013 11:14 AM  
**To:** Aneta Rietveld  
**Cc:** Joshua Watt; Stan Marczak  
**Subject:** RE: Environmental work for RWE Hydro

Aneta,

We've raised beetles in the past, and **would be happy** to do it again. I do NOT currently have kiddie pools or netting to set up the rearing stations as we gave ours back to WDNR when we finished the last project for a local marsh about five or six years ago. If you send me GPS coordinates of where the loosestrife is (along with coordinate projection – preferably WGS 84), I can get my students up there to harvest rootstock in late April. The place I used to go harvest beetles from no longer has them, but I can try to make contact with Brock Woods (WDNR) and find a place that's reasonably close to get some from.

Could we discuss further next week? I don't have much time this week as it's finals, and I teach all day as I'm on overload. Next week will be a lot better as the new term starts, and I have time available each day from 11-12. My direct line is 715-463-5165 ext 112.

Thanks for the invite! That will make two projects for us on the Clam next summer,

Matt

---

**From:** Aneta Rietveld [<mailto:arietveld@rwehydro.com>]  
**Sent:** Wednesday, January 16, 2013 11:01 AM  
**To:** Matt Berg  
**Subject:** Environmental work for RWE Hydro

Hi Matt,

I have heard good things about your environmental class from Josh Watt and my boss Bill Harris when he went in to talk to you one day last year. It sounds like your students like to be hands on with environmental issues. I have a project that I wanted to see if your class was interested in. One of our Hydro Projects is located on the Clam River and we must do purple loosestrife surveys for the agencies like DNR, US FWS, and FERC. There is a section of the Clam River upstream from the dam where we have approximately 10 acres of purple loosestrife plants thriving in a rice bog. There are too many for herbicidal treatment, so the DNR has requested that we start doing releases of Galerucella beetles at this area. Would your class be interested in a beetle raising project this year? The WI DNR has free starter beetles for teachers and RWE would reimburse your class for raising them. We have a lady up in MI at the conservation district who raises 500+ beetles for \$250.00 for us. We can also talk about using our Renewable World Foundation canoes to go get the purple loosestrife root stock in the early spring and to actually do the release in the summer.

The information on the DNR website is here, although you have probably read this all before.

<http://dnr.wi.gov/topic/Invasives/documents/2012PurpleLoosestrife.pdf>

<http://dnr.wi.gov/topic/invasives/loosestrife.html>

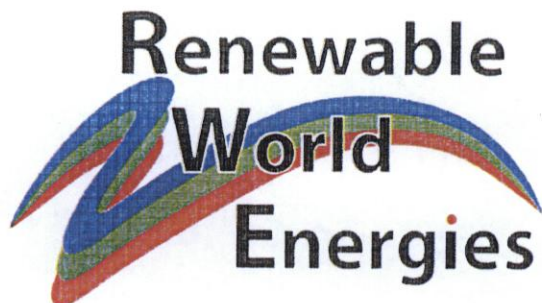
Give it a thought because we love getting kids involved in environmental concerns.

Aneta Rietveld  
Environmental Quality

# Appendix D

## Proof of

### Submittal to Agencies



December 3, 2012

Mr. Craig Roestler  
Water Quality Biologist, Upper Chippewa Basin  
Wisconsin Department of Natural Resources  
10220 State HWY 27  
Hayward, WI 54843

Ms. Cheryl Laatsch  
Water Regulations and Zoning Specialist  
Wisconsin Department of Natural Resources  
PO Box 7921  
Madison, WI 53707-7921

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

**Re: Danbury Project**  
**FERC # 9184**  
**Flambeau Hydro, LLC**  
**Article 401(b)(M), 2012 Purple Loosetrife Inventory Draft copy**

Dear Mr. Roesler, Ms. Laatsch, and Mr. Fasbender:

Attached you will find a copy of the Flambeau Hydro, LLC Draft "Purple Loosetrife Inventory" for 2012. This annual report has been prepared to comply with the federal hydropower license of the project and article named above and will be filed with the Federal Energy Regulatory Commission after the stipulated review and comment period is finished.

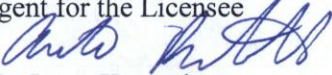
If you have any questions regarding this submission, please contact Mr. Gary Rast at Renewable World Energies Neshkoro office @ (855)994-9376, ext 105 or Aneta Rietveld at Renewable World Energies Norway office @ (855)994-9376, ext 108. They can also be reached via email at [grast@rwehydro.com](mailto:grast@rwehydro.com)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

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Neshkoro, WI 54960  
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Phone: 855-99HYDRO  
(855-994-9376)  
[www.renewableworldenergies.com](http://www.renewableworldenergies.com)

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

Sincerely,  
Renewable World Energies, LLC  
Agent for the Licensee

*for:*  
  
Mr. Jason Kreuzscher  
Vice President Operations

Cc: RWE Energies, Corporate

**Danbury Project Purple Loosestrife Inventory**  
**August 13, 2012**  
**FERC Project # 9184 Article 401(b)(M)**

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

*Purple Loosestrife*

On August 13, 2012, Flambeau Hydro, LLC (FHLLC) performed an inventory of purple loosestrife plants at the Danbury Project in Burnett County, Wisconsin. The method of inventory 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:

GPS point CLRVPL001; Location Lat N45 54.493' Lon W92 31.128'; Plant height 2' – 6'; Density ~5' x 50' ~40 plants single & multi-stem; Comments. Insect damage observed. Seed heads removed. Photos. No Video.

The area to be inventoried shall be the shoreline of the impoundment and lands owned by FHLLC within the Project Boundary as indicated on the Project Boundary Map G-1, as filed with the Federal Energy Regulatory Commission.

General 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), *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 tailrace* was surveyed on foot 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 no purple loosestrife plants were observed.

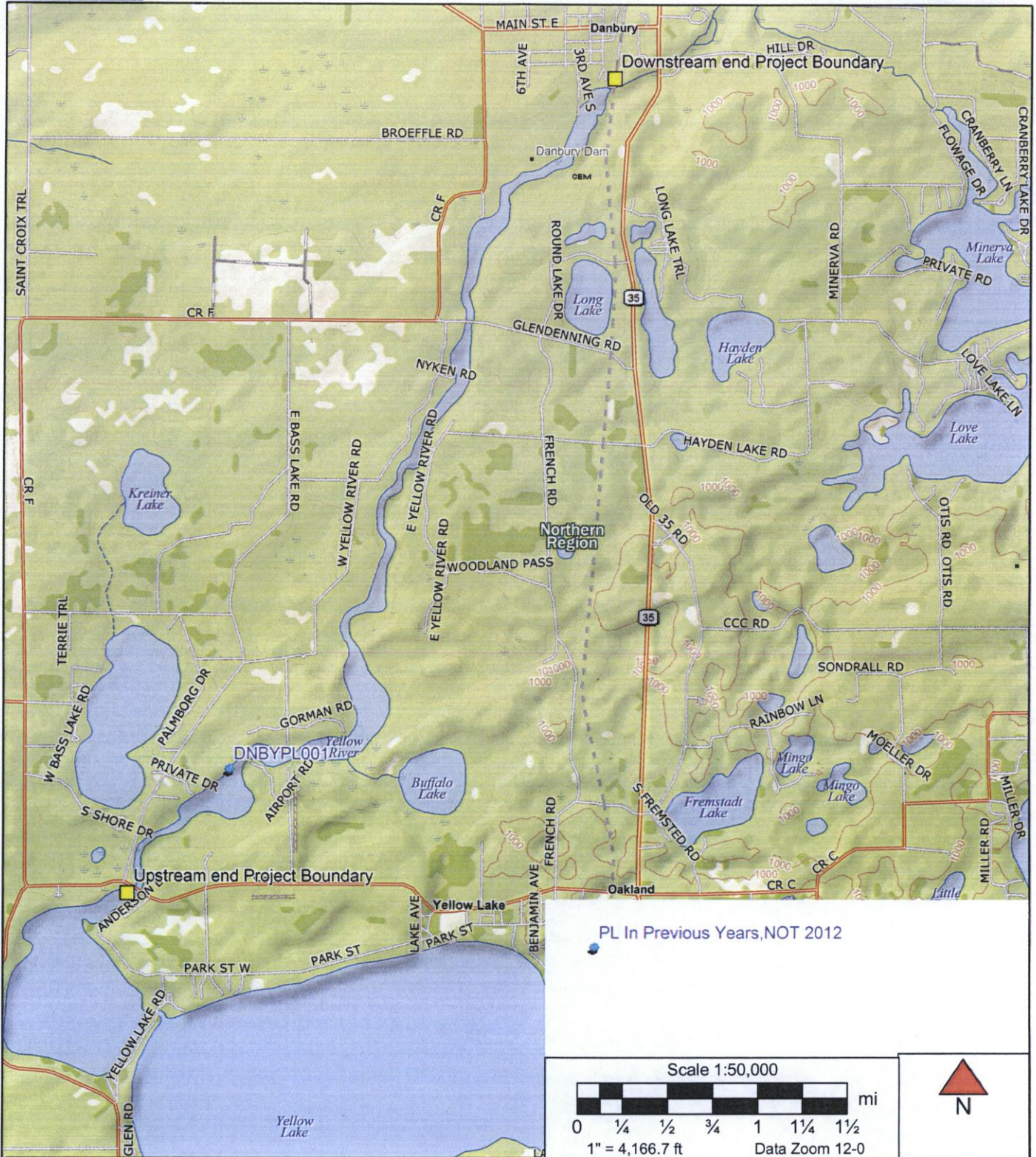
During the inventory, the following tools were used: boat with motor, binoculars, range finder, compass, and a digital camera.

Purple Loosestrife Survey

Project: Danbury #9184 Datum: WGS 84  
 Date: August 13, 2012 Page: 1 of 1  
 Crew: GGR and AKR

| Sighting # | GPS Point | Latitude    | Longitude  | Plant Height | Stand Area | Comments   |
|------------|-----------|-------------|------------|--------------|------------|--|
| 1          | DNBYPL001 | N45 56.846' | W92 24.768 | N/A          | N/A        | First observed in 2007. Located on left side of river in bogs. Plant was cut at the base in 2007, not found in 2008. Single plant found and pulled with root mass in 2009. Could not be located in 2010, 2011, or 2012. Photos in 2007 and 2009. |





# Danbury Purple Loosestrife Location Map 2012 Danbury, WI, FERC #9184



2012 DANBURY PURPLE LOOSESTRIFE SURVEY DAY

Year 2012 Purple Loosestrife/Erosion Survey

Danbury Hydroelectric Project - FERC # 9184

Date: 8-13-12 Conducted By: AKR GGR

HWL: 928.92 TWL: 899.00 Total Flow - 123

Time Survey Started: 1:15 pm Time Survey Ended: 5:00 pm

Weather Conditions: partly cloudy 77°

Location of Survey Area: Tailrace  Bypass Reach  Impoundment

Time of Sighting(s): \_\_\_\_\_

Location of Sighting(s) (GPS Coordinates): \_\_\_\_\_

(Attach Photos & Map if Applicable)

Purple Loosestrife: none

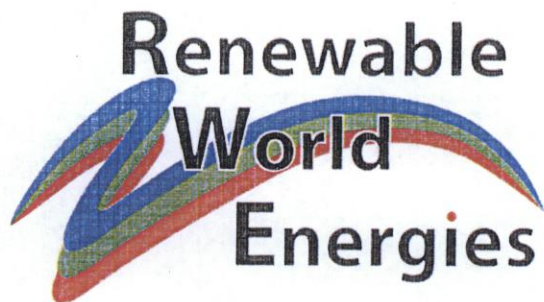
Erosion: \_\_\_\_\_ (Photos Taken) Yes \_\_\_\_\_ No \_\_\_\_\_

Other Species Observed: ducks, 3 blue herons  
Kingfishers

Other Pertinent Survey Information

none observed on portage trails or  
bypassed reach.  
none observed on impoundment

*[Handwritten Signature]*



December 3, 2012

Mr. Craig Roestler  
Water Quality Biologist, Upper Chippewa Basin  
Wisconsin Department of Natural Resources  
10220 State HWY 27  
Hayward, WI 54843

Ms. Cheryl Laatsch  
Water Regulations and Zoning Specialist  
Wisconsin Department of Natural Resources  
PO Box 7921  
Madison, WI 53707-7921

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

**Re: Clam River Project  
FERC # 9185  
Flambeau Hydro, LLC  
Article 401(b)(M), DRAFT 2012 Purple Loosetrife Inventory**

Dear Mr. Roesler, Ms. Laatsch, and Mr. Fasbender:

Attached you will find a copy of the Flambeau Hydro, LLC "Purple Loosetrife Inventory" for 2012.

This annual report has been prepared to comply with the federal hydropower license of the project and article named above and will be filed with the Federal Energy Regulatory Commission after the stipulated review and comment period is finished.

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@rwehydro.com](mailto:grast@rwehydro.com) or [arietveld@rwehydro.com](mailto:arietveld@rwehydro.com).

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

Sincerely,  
Renewable World Energies, LLC  
Agent for the Licensee

*For:*  
Mr. Jason Kreuzscher  
Vice President Operations

Cc: RWE Energies, Corporate

**Clam River Project Purple Loosestrife Inventory**  
**August 14, 2012**  
**FERC Project # 9185 Article 401(b)(M)**

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

*Purple Loosestrife*

On August 14, 2012, Flambeau Hydro, LLC (FHLLC) performed an inventory of purple loosestrife plants at the Clam River Project in Burnett County, Wisconsin. The method of inventory 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:

GPS point CLRVPL001; Location Lat N45 54.493' Lon W92 31.128'; Plant height 2' – 6'; Density ~5' x 50' ~40 plants single & multi-stem; Comments. Insect damage observed. Seed heads removed. Photos. No Video.

The area to be inventoried shall be the shoreline of the impoundment and lands owned by FHLLC within the Project Boundary as indicated on the Project Boundary Map G-1, as filed with the Federal Energy Regulatory Commission.

General Observations:

The Clam River 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 *by-pass reach* (from the spillway to a point approximately 800 feet downstream).

The *by-pass reach* was surveyed on foot and no purple loosestrife plants were observed.

The *tailrace* was surveyed on foot 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 three areas of purple loosestrife plants were observed in 2012. Four areas may have been in bloom during the survey, but they were located in the southernmost part of the impoundment inaccessible by boat due to the amount of silt built up in the channel. Next year a canoe or kayak will be brought along in addition to the boat to aid in review of these low lying areas.

CLRVPL003 to CLRVPL004 make up a large 10 acre site in the higher ground of the bogs within wild rice beds of the southern end of the impoundment. This site was first observed in 2007. In 2009 the amount of plants observed at this site had declined with major reductions occurring in the northern half of the 10 acre site. Overall estimates of this site by the survey crew indicated an increase in the amount of plants in 2010, but less than in the 2007 and 2008 surveys. There appears to be a considerably greater amount of purple loosestrife plants at this location in 2011, specifically near the end of the wild rice beds. This area appeared to be melding together with GPS point CLRVPL005. Photos taken in 2012 with a digital camera show this area from around 100 feet away. This was as close as the boat could get with the silting in of the riverbed.

CLRVPL005 was first observed in 2007. In 2009 this site showed an increase in purple loosestrife, with the survey crew counting 30 plants where only four plants were visible in 2008. There were no changes at this site in 2009-2011. There appears to be a few more plants in the 2012 survey. GPS points CLRVPL003 and CLRVPL004 appear to be melding together with this site in 2012.

CLRVPL006, CLRVPL007, CLRVPL009, CLRVPL010, and CLRVPL011 located north of the boat launch were not observed during this survey year.

CLRVPL001, CLRVPL002, CLRVPL008, CLRVPL012, and CLRVPL013 were inaccessible due to silting up of the channel and being located in low lying areas.

CLRVPL014 was first observed during the 2012 survey. It is 1 multi-stem plant located in a low lying area south of the boat launch. The boat could not get close to it for treatment.

No insect damage was noted at any of the occurrences at the project.

These purple loosestrife plants were inventoried and have been noted on the survey sheet and map at the end of this report. No other occurrences of purple loosestrife were observed.

During the inventory, the following tools were used: boat with motor, binoculars, range finder, compass, and a digital camera.

## Purple Loosestrife Survey

Project: Clam River #9185Date: August 14, 2012Crew: AKR & GGRDatum: WGS 84Page: 1 of 2

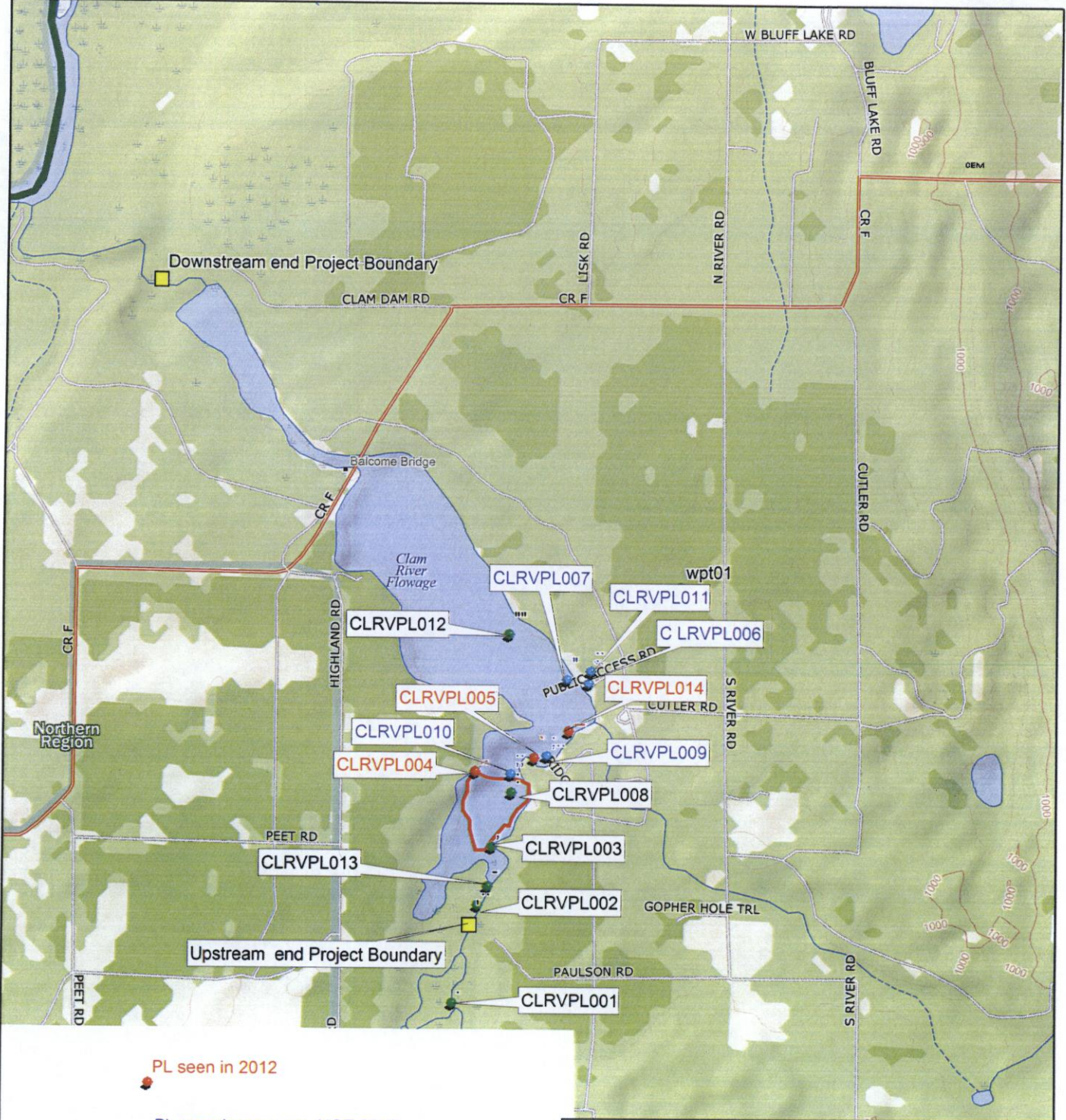
| GPS point              | Latitude                   | Longitude                  | Plant Height | Stand Area  | Comments   |
|------------------------|----------------------------|----------------------------|--------------|---|--|
| CLRVPL001              | N45 54.493'                | W92 31.128'                | N/A          | N/A   | First observed in 2007. Located 1500' upstream from the Project Boundary. No plants observed in 2008 and 2009. All plants pulled in 2007. <b>Site inaccessible in 2010, 2011, or 2012.</b> Video in 2007.  |
| CLRVPL002              | N45 54.812'                | W92 31.014'                | N/A          | N/A   | First observed in 2007. Located 150' West of GPS point. In 2009, some plants in full bloom, no old cane, and no beetle damage. No plants observed in 2008. No treatment in 2007 and 2009. No photos. Could not be located in 2010 or 2011. <b>Site inaccessible in 2012.</b>   |
| CLRVPL003<br>CLRVPL004 | N45 54.998'<br>N45 55.240' | W92 30.949'<br>W92 31.028' | 1'-7'        | 10 acres<br>~250 plants<br>multi-stem<br>and single<br>stem | First observed in 2007. Located on higher ground and bogs within wild rice on either side of the channel with the GPS Points as end-points. In 2009 and 2010 the amount of PL had declined with few plants visible in the northern half of the site. In 2011 and the amount of plants considerably increased. The area appears to be melding with the loosestrife at CLRVPL005. No beetle damage observed. Has never been treated. This occurrence was partially recorded on video in 2007. In 2012 the site was only viewable at a distance due to silting up of the channel. Photos taken in 2012. |
| CLRVPL005              | N45 55.284'                | W92 30.756'                | 4'-6'        | 15' x 15'<br>35 multi-<br>stem plants                       | First observed in 2007. Located 100' S of GPS point. No beetle damage observed, old cane is present, and most plants blooming in 2012. Appears to be melding with CLRVPL003 and CLRVPL004. No treatment from 2007-2012.  |
| CLRVPL006              | N45 55.529'                | W92 30.505'                | N/A          | N/A   | First observed in 2007. Located on right side of river and close to shoreline in low lying area. No beetle damage observed and no old cane present. All plants were pulled with root mass in 2007 & 2008. Seed heads clipped in 2009. No treatment in 2010. Approximately same number of plants in 2011. No photos. <b>No plants located in 2012.</b>  |



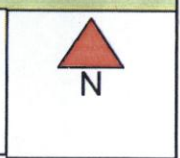
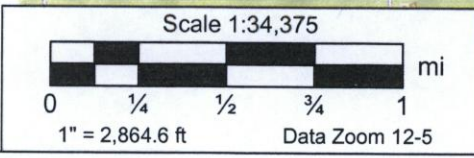
## Purple Loosestrife Survey

Project: Clam River #9185Date: August 14, 2012Crew: AKR & GGRDatum: WGS 84Page: 2 of 2

|           |             |             |     |                    |   |
|-----------|-------------|-------------|-----|--------------------|---|
| CLRVPL007 | N45 55.541' | W92 30.606' | N/A | N/A                | First observed in 2007. Location estimated. No insect damage or old cane was present. No treatment in 2007, 2008, 2009. <b>This plant could not be located in 2010, 2011, or 2012.</b> No photos.   |
| CLRVPL008 | N45 55.173' | W92 30.858' | N/A | N/A                | First observed in 2008. Located 470' S/SE of GPS point. No old cane present. Could not get close enough to determine beetle damage. No treatment in 2008, 2009, 2010, 2011. Photos in 2010. Number of plants increased in 2011. <b>Site inaccessible in 2012.</b> |
| CLRVPL009 | N45 55.292' | W92 30.697' | N/A | N/A                | First observed in 2009. Located 60' SSW of GPS point. No treatment in 2009. <b>This plant could not be located in 2010, 2011, or 2012.</b> No photos.   |
| CLRVPL010 | N45 55.233' | W92 30.863' | N/A | N/A                | First observed in 2009. Located on left side of river and close to shoreline in low lying area. No beetle damage. No treatment in 2009 and 2010. Three plants found in 2011. No Photos. <b>No plants located in 2012.</b>   |
| CLRVPL011 | N45 55.568' | W92 30.495' | N/A | N/A                | First observed in 2010. GPS point is estimated at 345' north of CLR V BR001 boat launch. Approx. 50 plants found again in 2011. No treatment either year. <b>No plants located in 2012.</b>   |
| CLRVPL012 | N45 55.685' | W92 30.874' | N/A | N/A                | First observed in 2010. Located on East side of impoundment and close to shoreline in low lying area. The site is located 83 yards East of GPS point. Three multi stem plants found in 2011. No treatment. <b>Site inaccessible in 2012.</b>                      |
| CLRVPL013 | N45 54.871' | W92 30.968' | N/A | N/A                | First observed in 2010. Located on left side of river and close to rivers edge in low lying area. One plant found in 2011. No beetle damage. No treatment. <b>Site inaccessible in 2012.</b>  |
| CLRVPL014 | N45 55.372' | W92 30.596' | 5'  | 1 multi-stem plant | First observed in 2012. Located 115 yards ENE of GPS point. No treatment. Site not accessible.  |



- PL seen in 2012
- PL seen in prev. yrs, NOT 2012
- PL Inaccessible area 2012



# Clam River Purple Loosestrife Location Map 2012 Clam River Reservoir, FERC #9185



2012 Purple Loosestrife  
CLR V PL003-PL004



2012 Purple Loosestrife  
CLR V PL005

Year 2012 Purple Loosetrife/Erosion Survey

Clam River Hydroelectric Project - FERC # 9185

Date: 8-14-12 Conducted By: AKR GGR

HWL: 898.77 TWL: 863.10 TFlow-143

Time Survey Started: 11:15 Time Survey Ended: 12:40

Weather Conditions: clear, sunny

Location of Survey Area: Tailrace ~~(11:15-12:15)~~ Bypass Reach ~~(12:15-12:40)~~ Impoundment

Time of Sighting(s):

Location of Sighting(s) (GPS Coordinates):

(Attach Photos & Map if Applicable)

Purple Loosetrife:

Erosion: (Photos Taken) Yes No

Other Species Observed: blue herons, kingfishers, eagle  
2 eagles in nest, turtles (25 on 1 log)

Other Pertinent Survey Information

no PL observed on tailwater or bypassed reach.

Year 2012 Purple Loosestrife/Erosion Survey

Clam River Hydroelectric Project - FERC # 9185

Date: 8-14-12 Conducted By: \_\_\_\_\_

HWL: 898.77 TWL: 863.10 T.Flow - 143

Time Survey Started: 10:30-11:15 + 1:15- Time Survey Ended: 4:15

Weather Conditions: partly cloudy, hot, no breeze

Location of Survey Area: Tailrace \_\_\_\_\_ Bypass Reach \_\_\_\_\_ Impoundment

Time of Sighting(s): \_\_\_\_\_

Location of Sighting(s) (GPS Coordinates): \_\_\_\_\_

(Attach Photos & Map if Applicable)

Purple Loosestrife: \_\_\_\_\_

Erosion: \_\_\_\_\_ (Photos Taken) Yes \_\_\_\_\_ No \_\_\_\_\_

Other Species Observed: \_\_\_\_\_

Other Pertinent Survey Information

see sheet for changes

Document Content(s)

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