

January 20, 2015

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 2014 Purple Loosetrife Inventory Report**

Dear Ms. Bose:

On behalf of Flambeau Hydro, LLC (Licensee), Renewable World Energies LLC is submitting the Final 2014 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.

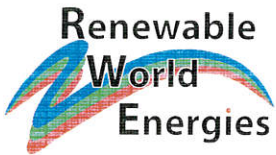
The report was sent to the agencies by letter dated December 15, 2014 as attachment to an e-mail sent and dated December 16, 2014. The letter and e-mail asked for comment if they had any to offer. No comment has been received to date from either Mr. Utrup (USFWS) or Ms. Laatsch (WDNR). The survey was conducted on two dates, August 18 and 19, 2014. The Impoundment Survey (6 Hours) was performed on August 18th. Purple Loosetrife was observed at six (6) sites as noted in the report. However, at the additional nine (9) sites previously documented, no Purple Loosetrife was observed as noted in the report. The FHLLC – Owned Property, Bypass Reach, and Tailrace Surveys were conducted on August 19th (7 Hours). No Purple Loosetrife was observed during this survey. Galerucella Beetles are scheduled to be released in 2015. The next survey and report will be due in 2016.

If you have any questions concerning the report, please contact Mr. Gary Rast at the Renewable World Energy LLC offices @ 855-994-9376 Ext. 105. He can also be reached by e-mail at grast@rwehydro.com.

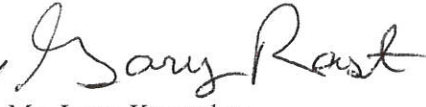
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Norway, MI 49870
Fax: 906-563-9344



Sincerely,
Renewable World Energies, LLC
Agent for Licensee

For 
Mr. Jason Kreuscher
Vice President, Operation

Attachment: Final Clam River 2014 Purple Loosestrife 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

Final Report

2014 Purple Loosestrife Inventory Report
(Per License Article 401 (b) (M))

For the

Clam River Hydroelectric Project
FERC Project # 9185
Flambeau Hydro, LLC

Clam River
Burnett County, WI

Respectfully Submitted by:

Renewable World Energies, LLC
100 State Street – P.O. Box 264
Neshkoro, Wisconsin 54960

Final – January 19, 2015

Clam River Project Purple Loosestrife Inventory
August 18 and August 19, 2014
FERC Project # 9185 Article 401(b)(M)

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

Purple Loosestrife

On August 18th and August 19th, 2014, Flambeau Hydro, LLC (FHLLC) performed an inventory of purple loosestrife plants at the Clam River Project in Burnett County, Wisconsin. As per the license article 401(b), amended on April 04, 2013, 2014 was the year for the Purple Loosestrife survey.

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. 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.

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).

On August 19th the *by-pass reach* was surveyed on foot and no purple loosestrife plants were observed.

On August 19th the *tailrace* was surveyed on foot and no purple loosestrife plants were observed.

On August 19th the *FHLLC-owned property within the project boundary* was surveyed on foot and no purple loosestrife plants were observed.

On August 18th the *impoundment* was surveyed by canoe. Six areas of purple loosestrife plants were observed in 2014.

At sites CLRVPL002, CLRVPL005, CLRVPL007, CLRVPL009, CLRVPL010, CLRVPL011, CLRVPL012, CLRVPL013, and CLRVPL014 no purple loosestrife was observed during 2014.

CLRVPL001 was first observed in 2007 and pulled. No plants observed in 2008 and 2009. This site was inaccessible in 2010, 2011, and 2012. No plants found in 2013. 2 multi stemmed plants found and pulled out by the root and disposed of properly in 2014. Picture taken 2014.

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 appeared to be a considerably greater amount of purple loosestrife plants at this location in 2011, specifically near the end of the wild rice beds. 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. In 2013 a canoe was used to access the river and a closer photo of the large area of PL was taken. In 2014 a canoe was used to access this site. There was a small amount of *Gallerucella* beetle feeding on many of the leaves, but the flower stalks were not eaten on any of the plants viewed. This means the beetles have started spreading out from their original placement on site CLRVPL008.

CLRVPL006 was first observed in 2007. 1 plant located in 2013, no beetle damage. A photo in 2014 shows 22 plants in this area. Beetles will be placed here in the summer of 2015.

CLRVPL008 was first observed in 2008. We accessed this area by canoe in 2013 and viewed purple loosestrife plants that had shot patterns in the leaves and main stems missing from *Galerucella* beetle damage. Photos included. In 2013 the Grantsburg high school science class raised and released 2000-3000 *Galerucella* beetles in July of 2013 within this patch of purple loosestrife. In 2014 there was a small amount of *Gallerucella* beetle feeding on many of the leaves, but the flower stalks were not eaten on any of the plants viewed. Photo of shot pattern on leaves of plants in 2014.

CLRVPL015 was first observed in 2014 as a single stemmed plant along the shore and was pulled by the root and disposed of properly. Photo in 2014.

CLRVPL016 was first observed in 2014 during a canoe trip down the Clam River. It is approximately 2 $\frac{3}{4}$ miles upstream from the project boundary (not on RWE property or within the project boundary).

These purple loosestrife plants were inventoried and have been noted on the survey summary form in Appendix B and maps in Appendix D. All survey documents and photos are in Appendix C and a map of observed *Galerucella* beetle feeding is located in Appendix E. No other occurrences of purple loosestrife were observed.

The days of the inventory were partially sunny with highs in the low 70's. The headwater level was between 898.70 and 898.76. The tailwater level was between 863.30 and 863.60. The flow was between 175 and 238cfs. During the inventory, the following tools were used: canoe, GPS, binoculars, compass, and a digital camera.

In the summer of 2015 *Galerucella* beetles will again be released at some of the largest sites and the next survey will be completed in 2016.

All survey information from 2014 has been entered into the SWIMS database.

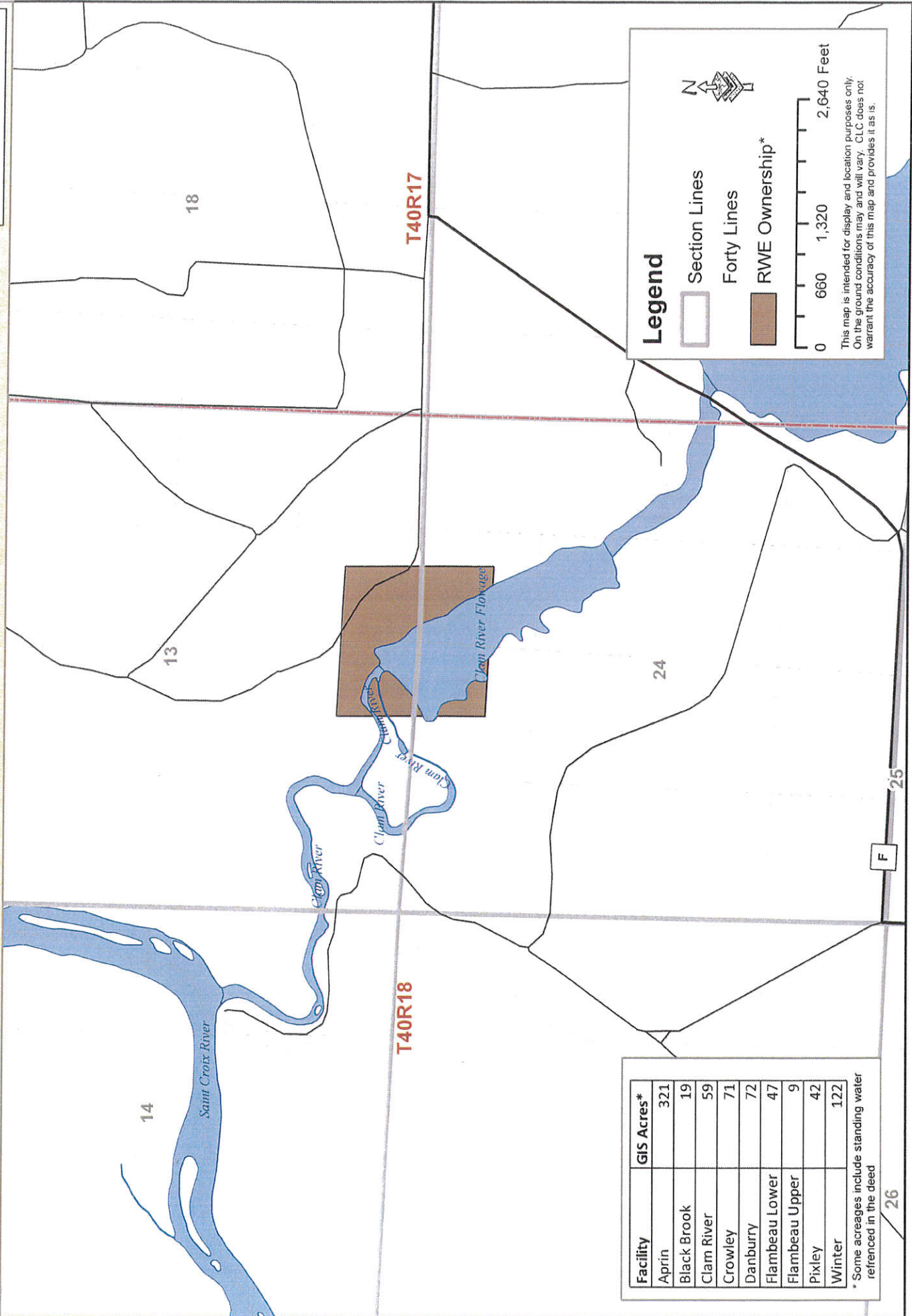
APPENDIX
A
PROJECT BOUNDARY
MAP

PROJECT BOUNDARIES CLAM RIVER

FERC #9185



Burnett County - Clam River Facility



Facility	GIS Acres*
Aprin	321
Black Brook	19
Clam River	59
Crowley	71
Danburry	72
Flambeau Lower	47
Flambeau Upper	9
Pixley	42
Winter	122

* Some acreages include standing water referenced in the deed

APPENDIX
B
PURPLE LOOSESTRIFE
SURVEY
SUMMARY FORM

Purple Loosestrife Survey

Project: Clam River #9185Date: August 18 and August 19, 2014Crew: AKRDatum: WGS 84Page: 1 of 6

GPS point	Latitude	Longitude	Plant Height	Stand Area	Beetle activity	Comments
CLRVPL001	N45 54.493'	W92 31.128'	5'-6'	12' X 3'	2014- no damage	First observed in 2007. Located 1500' upstream from the Project Boundary. All plants pulled in 2007. Video in 2007, 2008/2009 no plants observed. 2010, 2011, and 2012 site inaccessible due to silting of river channel. 2013 accessed by canoe-no plants found. 2014 accessed by canoe- 2 multi stemmed plants were found and pulled by the root ball and properly disposed of. Photo 2014.
CLRVPL002	N45 54.812'	W92 31.014'	N/A	N/A	N/A	First observed in 2007. Located 150' West of GPS point. 2008 No plants observed. 2009 some plants in full bloom, no old cane, and no beetle damage. No treatment in 2007 and 2009. No photos. 2010/2011 not observed. 2012 site inaccessible due to silting of river channel. 2013 accessed by canoe - no plants observed. 2014 accessed by canoe - no plants observed.
CLRVPL003 CLRVPL004	N45 54.998' N45 55.240'	W92 30.949' W92 31.028'	1'-7'	10 acres ~250 plants multi- stem and single stem	2014- beetle feeding- shot holes in the leaves of 10% of the plants along the edge of the river channel.	First observed in 2007 and partially recorded on video. Located on higher ground and bogs within wild rice on either side of the channel with the GPS points as end-points. 2009 and 2010 the amount of PL had declined with few plants visible in the northern half of the site. 2011 the amount of plants considerably increased-no beetle damage observed/has never been treated. 2012 the site was only viewable at a distance due to silting up of the channel. Photos taken in 2012. 2013 accessed marsh by canoe -photo taken. 2014 accessed by canoe-similar amounts found.

Purple Loosestrife Survey

Project: Clam River #9185Date: August 18 and 19, 2014Crew: AKRDatum: WGS 84Page: 2 of 6

GPS point	Latitude	Longitude	Plant Height	Stand Area	Beetle Activity	Comments
CLRVPL005	N45 55.284'	W92 30.756'	N/A	N/A	N/A	First observed in 2007. Located 100' S of GPS point. 2012 no beetle damage observed, old cane is present, and most plants blooming. No treatment from 2007-2012. 2013 is the same as 2012 - 2 pictures taken- no beetle damage visible. 2014 photo taken- no plants visible in the grasses.
CLRVPL006	N45 55.529'	W92 30.505'	4'	1' x 1'	2013- No damage 2014- No damage	First observed in 2007. Located on right side of river and close to shoreline in low lying area. 2007/2008 no beetle damage observed and no old cane present. All plants were pulled with root mass. 2009 seed heads clipped. 2010 no treatment. 2011 approximately same number of plants. No photos. 2012 no plants located. 2013-1 plant located -no treatment. 2014-22 single and multi-stemmed plants observed in the grasses. Photo 2014.
CLRVPL007	N45 55.541'	W92 30.606'	N/A	N/A	2013-No damage 2014-N/A	First observed in 2007. Location estimated. No insect damage or old cane was present. No treatment in 2007, 2008, 2009. 2010, 2011, or 2012 this plant could not be located. 2013 found 1 plant -no photo- no beetle damage. 2014 -no plant observed.

Purple Loosestrife Survey

Project: Clam River #9185
 Date: August 18 and August 19, 2014
 Crew: AKR

Datum: WGS 84
 Page: 3 of 6

GPS point	Latitude	Longitude	Plant Height	Stand Area	Beetle Damage	Comments
CLRVPL008	N45 55.173'	W92 30.858'	5'	15+ multi-stem Area 66' x 15'	2013-some plants have shot patterns on their leaves and the main stem chewed off 2014- Shot holes in leaves on 20% of plants- no stems chewed off.	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. 2009- no treatment. 2010 no treatment-photos. 2011 no treatment- number of plants increased. 2012 site inaccessible. 2013 accessed by canoe-beetles released here in July. Photos in 2013. 2014-accessed by canoe similar numbers of plants as 2013- Photo 2014.
CLRVPL009	N45 55.292'	W92 30.697'	N/A	N/A	N/A	First observed in 2009. Located 60' SSW of GPS point. No treatment in 2009. This plant could not be located in 2010, 2011, 2012, 2013, or 2014. No photos.
CLRVPL010	N45 55.233'	W92 30.863'	N/A	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. 2011 three plants found. No Photos. 2012, 2013, 2014 no plants observed.

Purple Loosestrife Survey

Project: Clam River #9185
 Date: August 18 and August 19, 2014
 Crew: AKR

Datum: WGS 84
 Page: 4 of 6

GPS point	Latitude	Longitude	Plant Height	Stand Area	Beetle Activity	Comments
CLRVPL011	N45 55.568'	W92 30.495'	N/A	N/A	N/A	First observed in 2010. GPS point is estimated at 345' north of CLRV BR001 boat launch. 2011 approx. 50 plants found again. No treatment either year. 2012 no plants observed. 2013-2 plants in swamp- no beetle damage noted. 1 Photo. 2014- no plants observed.
CLRVPL012	N45 55.685'	W92 30.874'	N/A	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. 2011 three multi stem plants found , no treatment. 2012 site inaccessible. 2013 boat got within 175 yards, plants are located in low water in a swamp with tree stumps in the way. No beetle damage noted to flowering stalks. 2014 no plants observed.
CLRVPL013	N45 54.871'	W92 30.968'	N/A	N/A	N/A	First observed in 2010. Located on left side of river and close to rivers edge in low lying area. 2011 one plant found, no beetle damage. No treatment. 2012 site inaccessible. 2013 accessed by canoe, no plants observed. 2014 accessed by canoe, no plants observed.

Purple Loosetrife Survey

Project: Clam River #9185
 Date: August 18 and August 19, 2014
 Crew: AKR

Datum: WGS 84
 Page: 5 of 6

GPS point	Latitude	Longitude	Plant Height	Stand Area	Beetle Activity	Comments
CLRVPL014	N45 55.372'	W92 30.596'	N/A	N/A	N/A	First observed in 2012. Located 115 yards ENE of GPS point. No treatment. Site not accessible. 2013 no plant observed. 2014 no plant observed.
CLRVPL015	N45 55.901'	W92 31.566	3'	1' x 1'	2014-No damage	First observed in 2014 as a single plant, pulled out by the root and disposed of properly. Photo 2014.
CLRVPL016	N45 53.054	W92 30.070	4'	2' x 2'	2014-No damage	First observed in 2014 while canoeing down the Clam River- located 2 ¼ miles upstream of project boundary. Not on RWE property.

Purple Loosestrife Survey

Project: Clam River #9185
 Date: August 18 and August 19, 2014
 Crew: AKR

Datum: WGS 84
 Page: 6 of 6

Beetle Release Year	Latitude	Longitude	Number of beetles released	Comments
2013	N45 55.91604	W92 30.51129	2000-3000	Released in July within CLRVPL008.

APPENDIX
C
SURVEY DOCUMENTS

Year 2014 Purple Loosestrife/Eurasian Water Milfoil/Erosion Survey
Clam Dam
~~Cataract~~ Hydroelectric Project - FERC # ~~10854~~

Date: 8-18-14 Conducted By: AKR

HWL: 898.70 TWL: 863.60 238 cfs

Time Survey Started: 10:00 Time Survey Ended: 4:00

Weather Conditions: cloudy - partial sunny later 69°

Location of Survey Area: Tailrace _____ Bypass Reach _____ Impoundment X

Time of Sighting(s): 12:00, 2:00

Location of Sighting(s) (GPS Coordinates): see sheet

(Attach Photos & Map if Applicable)

Purple Loosestrife: X Eurasian Water Milfoil: _____

Erosion: _____ (Photos Taken) Yes _____ No _____

Other Species Observed: _____

Other Pertinent Survey Information

1 plant found way upstream - N 45. 53.054
not on property W 072 30.070



CLRVPL001 AUGUST 18, 2014



CLRVPL005 NOT SEEN IN 2014



CLRVPL006 AUGUST 18,2014



CLRVPL008 SHOT PATTERNS IN LEAVES AUGUST 18,2014

Year 2014 Purple Loosestrife/Eurasian Water Milfoil/Erosion Survey
Clam Dam
~~Catawba~~ Hydroelectric Project - FERC # ~~10854~~

Date: 8-19 Conducted By: AKR

HWL: 898.76 TWL: 863.30 175 cfs

Time Survey Started: 9 am Time Survey Ended: 4 pm

Weather Conditions: cloudy / partial sunny 70°

Location of Survey Area: Tailrace ☒ Bypass Reach ☒ Impoundment ☒

Time of Sighting(s): _____

Location of Sighting(s) (GPS Coordinates): _____

Purple Loosestrife: ☒ none seen on tailrace or bypass reach (Attach Photos & Map if Applicable)
 Eurasian Water Milfoil: _____

Erosion: _____ (Photos Taken) Yes _____ No _____

Other Species Observed: _____

Other Pertinent Survey Information

1 new plant - pulled - 3' tall - pic. N 45 55.265
W 092 31.566

AKR

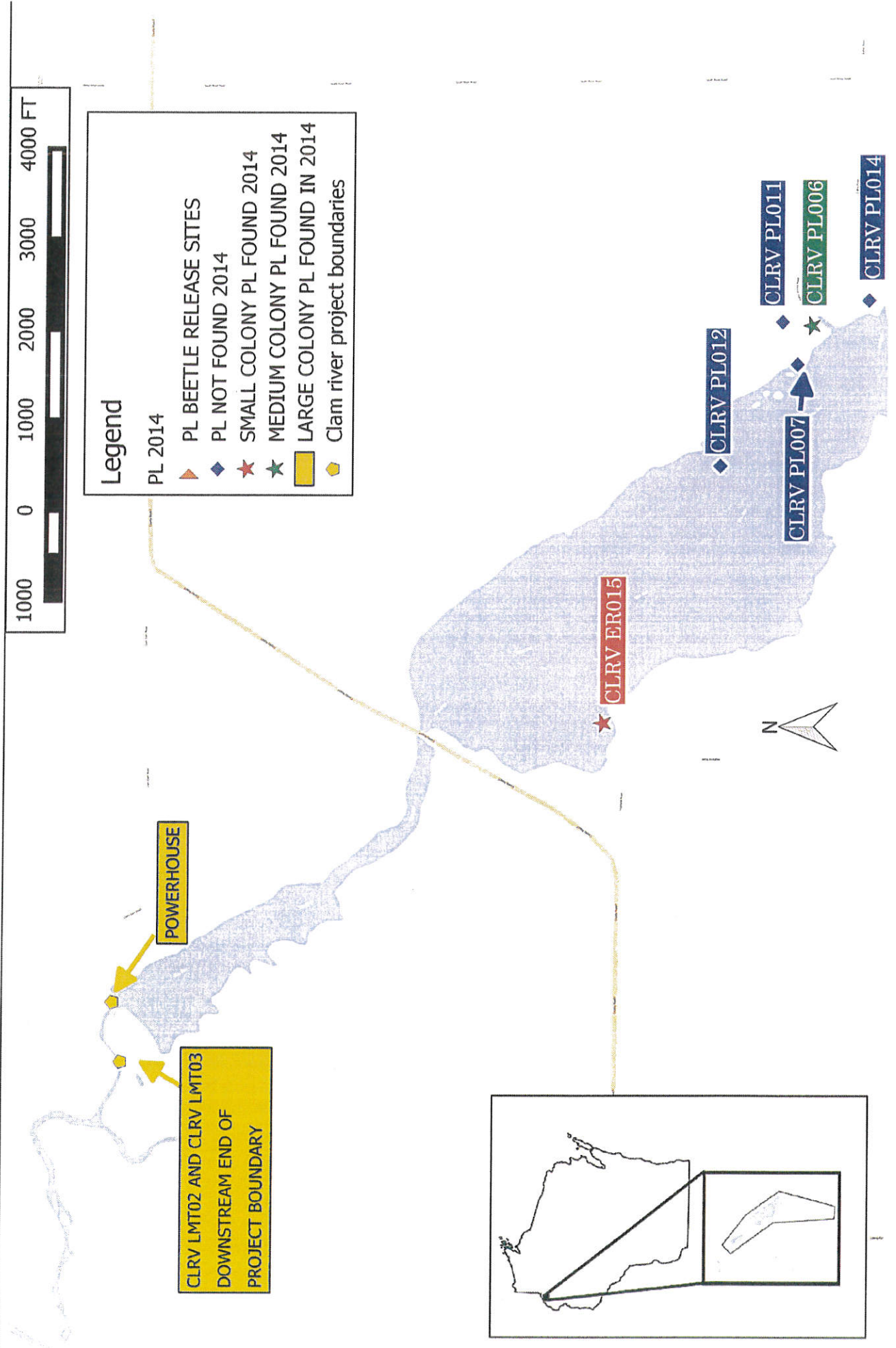


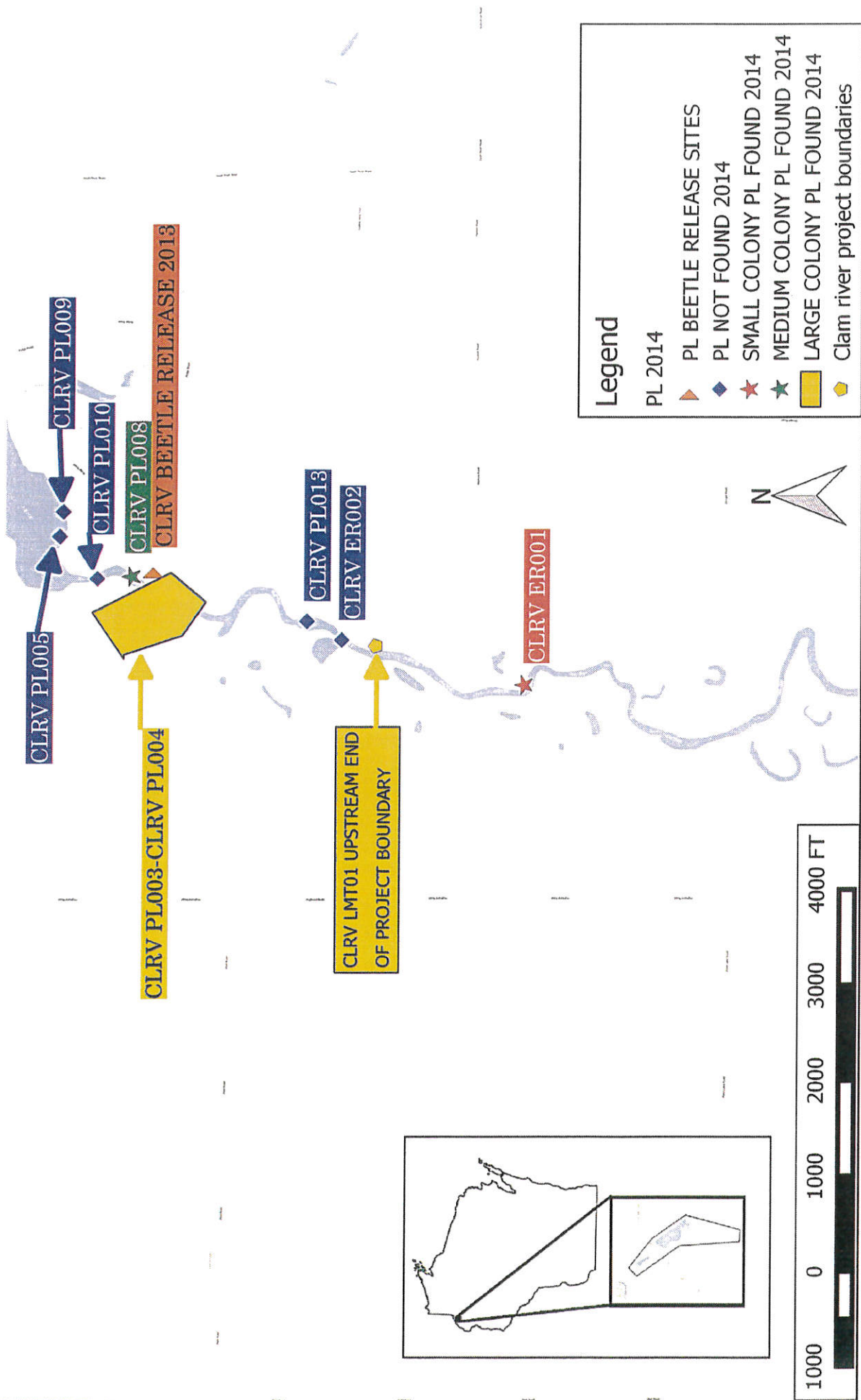
CLRVPL015 AUGUST 19,2014

APPENDIX
D
PURPLE LOOSESTRIFE
MAPS

CLAM RIVER PURPLE LOOSESTRIPE LOCATION MAP 2014

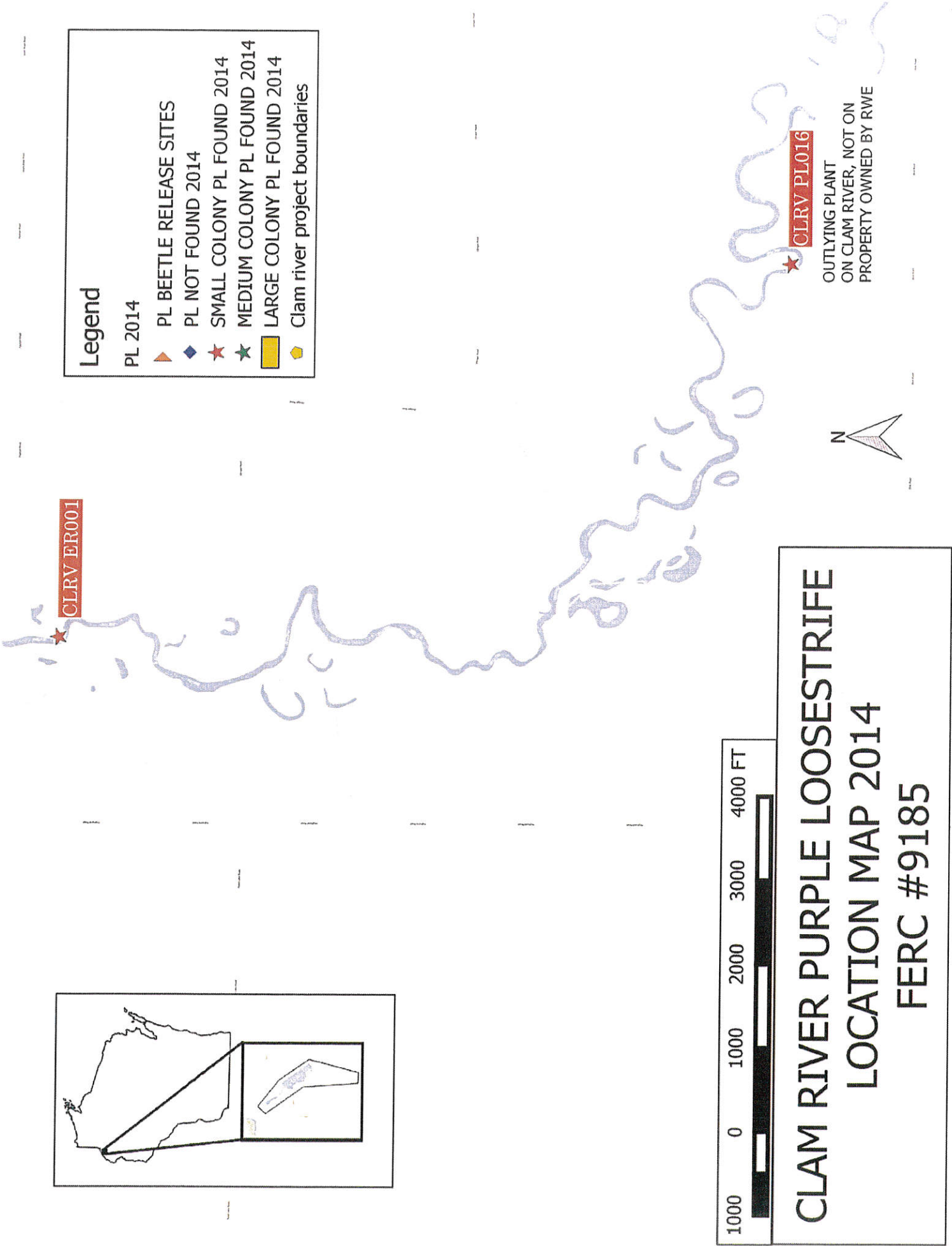
FERC #9185





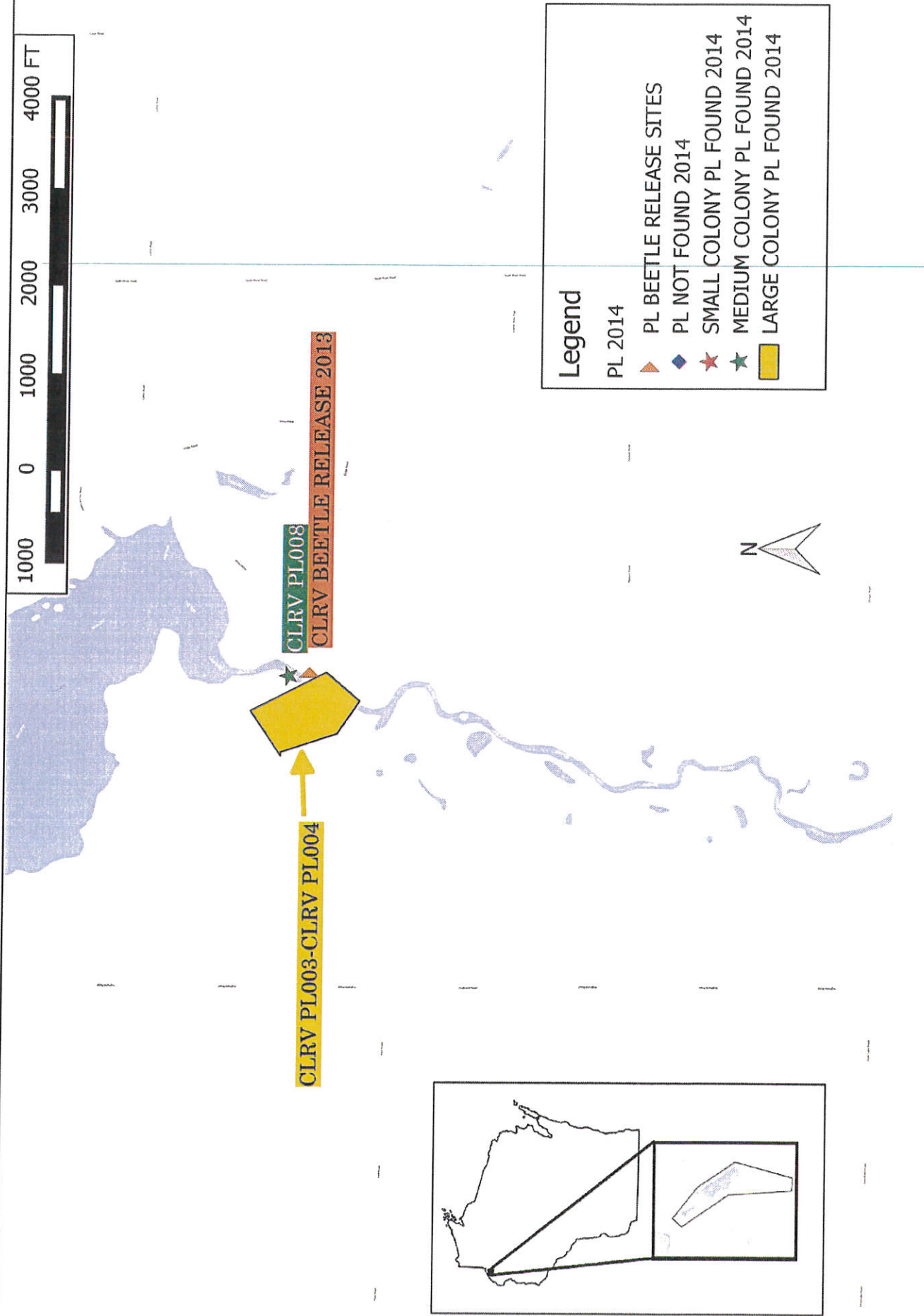
CLAM RIVER PURPLE LOOSESTRIPE LOCATION MAP 2014

FERC #9185



APPENDIX
E
GALERUCELLA
BEETLE DAMAGE
MAP

2014 GALERUCELLA BEETLE DAMAGE SITES CLAM RIVER FERC # 9185



Gary Rast

From: Aneta Rietveld
Sent: Monday, January 12, 2015 12:55 PM
To: Gary Rast
Subject: FW: 2014 Clam River Hydroelectric Project Purple Loosestrife survey
Attachments: 14-12-15 AKR CLRV Draft PL to Agencies.pdf

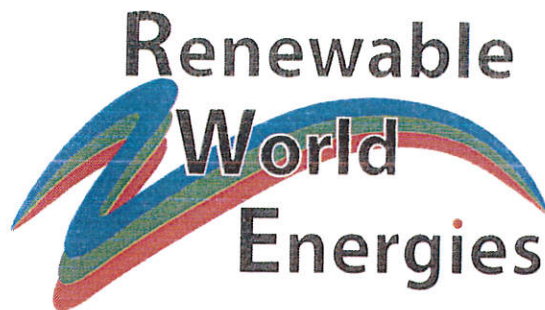


From: Aneta Rietveld
Sent: Tuesday, December 16, 2014 3:09 PM
To: 'nick_utrup@fws.gov'; cheryl.laatsch@wisconsin.gov
Subject: 2014 Clam River Hydroelectric Project Purple Loosestrife survey

Hi Nick and Cheryl,

Attached you will find the 2014 Purple Loosestrife inventory for Renewable World Energies, LLC's Clam River project. It has already been included in the SWIMS database as of the beginning of November. Please send any comments you may have to me in the next month and a half and I will file as final in the end of January. Thank you,

Aneta Rietveld
RWE Hydro
Environmental
Cell(920)293-1251



 **COPY**

December 15, 2014

Mr. Nick Utrup
WI/MN Ecological Services Field Office
U.S. Fish and Wildlife Service
4101 American Blvd. East
Bloomington, MN 55425

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


Re: Clam River Project
FERC # 9185
Flambeau Hydro, LLC
Article 401(b)(M), DRAFT 2014 Purple Loosetrife Inventory

Dear Ms. Laatsch, and Mr. Utrup:

Attached you will find a copy of the 2014 Flambeau Hydro, LLC "Purple Loosetrife Inventory" for Clam River Hydroelectric Project FERC #9185. This annual report has been prepared to comply with the federal hydropower license of the project and article named above. A final copy will be filed with the Federal Energy Regulatory Commission with any comments you might add by the end of January.

If you have any questions regarding this submission, please contact Aneta Rietveld at Renewable World Energies Norway office @ (855)994-9376, ext 108 or arietveld@rwehydro.com.

Sincerely,
Renewable World Energies, LLC
Agent for the Licensee


For: Mr. Jason Kreuscher
Vice President Operations

Attached: Draft Clam River 2014 Purple Loosetrife Inventory

Cc: RWE Energies, Corporate

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Document Content(s)

15-01-20 GGR CLRV FINAL 2014 P L INV RPT TO FERC.PDF.....1-30