



October 7, 2014

VIA E-FILE TO FERC

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E., Room 1A
Washington, D.C. 20426

Dear Secretary:

SUBJECT: Submittal of the Annual Purple Loosestrife Survey and Plan Revision Request per Article 401Q of the Flambeau Hydroelectric Station License, Reference P-1960-24

Dairyland Power Cooperative (Dairyland) is submitting the following Annual Survey per the requirements of the Purple Loosestrife Management Plan under License Article 401, Condition Q.

On 3 September 2014, the annual report was e-mailed to Cheryl Laatsch of the WDNR, as required per the Purple Loosestrife Management Plan. During Ms. Laatsch's discussions with me on 24 September 2014, it was concluded that Dairyland has been surveying and reporting more frequently than most licensees currently do—and that, given the stabilization of the stand, the requirements could be reduced considerably. As a result, Ms. Laatsch e-mailed me the revised requirements we agreed to, and they have been incorporated into the revised Plan.

Dairyland is submitting this revised Plan for FERC approval.

If there are any questions regarding this report, please call Anthony McKimmy at 608-787-1463.

Sincerely,

Anthony K. McKimmy
Manager – Renewable and Combustion Turbine Generation

TKM:krm

Attachment(s)

cc/att: Cheryl Laatsch – WDNR, Horicon, WI
Brad Foss, DPC

A Touchstone Energy Cooperative

3200 East Ave. S. • PO Box 817 • La Crosse, WI 54602-0817 • 608-788-4000 • 608-787-1420 fax • www.dairynet.com

Dairyland Power Cooperative is an equal opportunity provider and employer.

**Flambeau Hydroelectric Station
FERC Project No. 1960-002**

**Purple Loosestrife (*Lythrum salicaria*)
Management Plan**

**Prepared by Dairyland Power Cooperative
La Crosse, Wisconsin
October 2004
Revised October 7, 2014**

Background

The Directors Order:

Article 401. Commission Approval and Reporting.

(a) Requirement to File Plans and Reports with the Commission

The Wisconsin Department of Natural Resources (WDNR) water quality certification (Appendix A) requires the licensee to develop or implement certain plans without prior Commission approval, and to provide certain reports and notifications to the WDNR, but not to the Commission. Within three (3) months of issuance of this license, the licensee, after consultation with the WDNR, shall file with the Commission, for approval, a schedule for submitting each of these plans and reports, and for providing notification to the Commission, as identified below. The Commission reserves the right to make changes to the schedule.

WDNR Condition (Appendix A)	Plan Name
D	Exceptions to normal operations notification
G	Reservoir drawdown management plan
H	Scheduled changes to operation notification
I	Outage response plan
M	Operations compliance report
P	Spill prevention, control, and countermeasures monitoring plan
Q	Purple loosestrife monitoring report
U	Erosion control plan

As to each plan, the licensee shall submit to the Commission documentation of its consultation with the WDNR, copies of comments and recommendations made in connection with the plan, and a description of how the plan accommodates the comments or recommendations. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to make changes to the plans. Upon Commission approval, the plans become a requirement of the license, and the licensee shall implement the plans, including any changes required by the Commission.

In the WDNR Water Quality Certification (P.L. 92-500, Section 401) dated October 18, 2003, the Department stated:

The applicant shall annually inspect the entire shoreline of the project waters for purple loosestrife (*Lythrum salicaria*) and map its distribution and relative abundance. Inspections should be scheduled in August after the plant's flowers have developed so purple loosestrife can be readily identified. The applicant should submit a report of the monitoring results to the Department by December 31 each year. The applicant shall continue its efforts to control the spread of purple loosestrife on its landholdings near the

project. If at any time the Department deems it necessary to expand its efforts to control or eliminate purple loosestrife in the Flambeau river system, the applicant shall cooperate in this measure.

On 24 September 2014, the WDNR discussed with the licensee modifications to the plan. The following changes were agreed to and sent in an email from WDNR Statewide FERC Coordinator, Cheryl Laatsch on the same day.

1. Please change the fall surveys to every two years, and eliminate the spring surveys.
2. Please only report when there has been a purple loosestrife stand change of 10% of the baseline or more, or a significant reduction in beetle activity.
3. All files should be available if requested for review.
4. If new plant stands are observed, please contact me to discuss if any actions are needed.

The licensee agrees to comply with the WDNR requirement by implementing the following Purple Loosestrife Management Plan.

History

As of the drafting of the revised purple loosestrife management plan during October 2014, there is only one known stand of purple loosestrife located within the Project Boundary. Located near the southwest quarter of the Project at latitude 45° 29.290' N and longitude 91° 2.965' W, the stand is approximately one acre in size. From infestation discovery until 2002, the stand was chemically treated using herbicides. Chemical control was subsequently abandoned in favor of biological control in 2002. During each of 2002 and 2003, 4,000 *Galerucella* beetles were released at the site. During each of 2005, 2006, and 2007, an additional 8,000 beetles were released. Follow-up monitoring of the site through the spring of 2014 showed over-wintering success of the beetles based on the annual observance of leaf damage to the loosestrife plants. Both stand density and size have decreased using bio-control; however, the site has seemed to reach a point of equilibrium in recent years.

Monitoring

Dairyland Power Cooperative (DPC) personnel will biannually inspect the entire shoreline of the Project waters for new purple loosestrife infestations and map its distribution and relative abundance. Inspections will take place in late August or early September when the plants have reached their maximum flowering potential. Data will be recorded on field sheets specifically developed for purple loosestrife surveys by the Wisconsin Wetlands Association (WWA). Information collected at infestation sites will include, but not be limited to, "number of stems," "acreage," "density of purple loosestrife stems," "presence of leaf damage and/or *Galerucella* beetles," and "control recommendations." Infestation locations will be documented using GPS coordinates. A sample field sheet for this type of survey can be found at the end of this management plan.

Control

Small, isolated plants and low-density infestations will be controlled by digging, hand pulling, or stem cutting with basal herbicide treatment. Higher density areas with greater than 1,000 stems will be reported to the WDNR within a month of discovery.

Reporting

DPC will submit to the WDNR a report if the current stand increases in size by more than 10% or if new stands are discovered.

Purple Loosestrife Spring Monitoring Survey Data Sheet

Site Name:	Time:	Observer Name(s):
Location: Latitude: Longitude:	Weather:	
Date of Observation:	Temperature:	

Quadrant	Galerucella (use Chart A)			Purple Loosestrife (use Chart B)		
	Eggs	Larvae	Adults	% Damage	% Cover	# of Stems
1						
2						
3						
4						
5						

0	1
1 – 9	2
10 – 49	3
50 – 99	4
100 – 499	5
500 – 1000	6
> 1000	7

0	A
1 – 5 %	B
5 – 25 %	C
26 – 50 %	D
50 – 75 %	E
75 – 100 %	F

Other Observations:

**Flambeau Hydroelectric Station
FERC Project No. 1960-002**

**Purple Loosestrife (*Lythrum salicaria*)
Management Plan**

Prepared by Dairyland Power Cooperative
La Crosse, Wisconsin
October 2004
Revised October 07, 2014

**PLAN TO COMPLY (in part) WITH ARTICLE 401 OF THE FLAMBEAU
HYDROELECTRIC PROJECT LICENSE (FERC PROJECT No. 1960-002)**

Purple Loosestrife (*Lythrum salicaria*) Management Plan

Background

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The Directors Order:

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The Wisconsin Department of Natural Resources (WDNR) water quality certification (Appendix A) requires the licensee to develop or implement certain plans without prior Commission approval, and to provide certain reports and notifications to the WDNR, but not to the Commission. Within 3 months of issuance of this license, the licensee, after consultation with the WDNR, shall file with the Commission, for approval, a schedule for submitting each of these plans and reports, and for providing notification to the Commission, as identified below. The Commission reserves the right to make changes to the schedule.

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As to each plan, the licensee shall submit to the Commission documentation of its consultation with the WDNR, copies of comments and recommendations made in connection with the plan, and a description of how the plan accommodates the comments or recommendations. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to make changes to the plans. Upon Commission approval, the plans become a requirement of the license, and the licensee shall implement the plans, including any changes required by the Commission.

In the WDNR Water Quality Certification (P.L. 92-500, Section 401) dated October 18, 2003, the Department stated:

The applicant shall annually inspect the entire shoreline of the project waters for purple loosestrife (*Lythrum salicaria*) and map its distribution and relative abundance. Inspections should be scheduled in August after the plant's flowers have developed so purple loosestrife can be readily identified. The applicant should submit a report of the monitoring results to the Department by December 31 each year. The applicant shall continue its efforts to control the spread of purple loosestrife on its landholdings near the project. If at any time the Department deems it necessary to expand its efforts to control or eliminate purple loosestrife in the Flambeau river system, the applicant shall cooperate in this measure.

On 24 September 2014, the WDNR discussed with the licensee modifications to the plan. The following changes were agreed to and sent in an email from WDNR Statewide FERC Coordinator, Cheryl Laatsch on the same day.

1. Please change the fall surveys to every two years, and eliminate the spring surveys.
2. Please only report when there has been a PL stand change of 10% of the baseline or more, or a significant reduction in beetle activity.
3. All files should be available if requested for review.
4. If new plant stands are observed, please contact me to discuss if any actions are needed.

The licensee agrees to comply with the WDNR requirement by implementing the following Purple Loosestrife Monitoring Plan.

Background History

As of the initial drafting of the drafting of the revised purple loosestrife management plan during October 2014, there is only one known stand of purple loosestrife located within the Project Boundary. Located near the southwest quarter of the Project at latitude 45° 29.290' N and longitude 91° 2.965' W, the stand is approximately one acre in size. From infestation discovery until 2002, the stand was chemically treated using herbicides. Chemical control was subsequently abandoned in favor of biological control in 2002. During each of 2002 and 2003, 4000 *Galerucella* beetles were released at the site. During each of 2005, 2006, and 2007, an additional 8,000 beetles were released. Follow-up monitoring of the site through the spring of 2014 showed over-wintering success of the beetles and based on the annual observance of leaf damage to the loosestrife plants. Both stand density and size hadve decreased remained using biocontrol; however, the site has seemed to reach a point of equilibrium in recent years. unchanged.

~~Plans are to continue with biological control at the current infestation site, and where applicable, expand its use to newly discovered sites.~~

~~During the initial ten years of the plan.....~~

Monitoring

Dairyland Power Cooperative (DPC) personnel will ~~bi~~annually inspect the entire shoreline of the Project waters for new purple loosestrife infestations and map its distribution and relative abundance. Inspections will take place in late August ~~or early September~~ when the plants have reached their maximum flowering potential. Data will be recorded on field sheets specifically developed for purple loosestrife surveys by the Wisconsin Wetlands Association (WWA). Information collected at infestation sites will include, but not be limited to, “number of stems,” “acreage,” “density of purple loosestrife stems,” “presence of leaf damage and/or *Galerucella* beetles,” and “control recommendations.” Infestation locations will be documented using GPS coordinates. A sample field sheet for this type of survey can be found at the end of this management plan.

~~Dairyland staff will also be in charge of the spring monitoring program. Monitoring of biological control efforts at established purple loosestrife stands will also be conducted on an annual basis in the springtime when new plants are approximately 18 inches tall. Data will be collected from five, one square meter monitoring quadrants, located at each control site and recorded on modified spring survey sheets developed by the United States Fish and Wildlife Service (USFWS). Recorded survey information will include, but not be limited to, “number of *Galerucella* eggs, larvae, and adults,” “percent damage to purple loosestrife plants,” “percent purple loosestrife cover,” and “number of purple loosestrife stems” per monitoring quadrant. A sample of the purple loosestrife biological spring monitoring survey data sheet can be found at the end of management plan.~~

Control

Small, isolated plants and low-density infestations will be controlled by digging, hand pulling, or stem cutting with basal herbicide treatment. Higher density areas with greater than 1000 stems will be ~~considered as an appropriate site for the use of biological control, whereby the release of *Galerucella* beetles would be carried out per guidelines established by the reported to the~~ Wisconsin Department of Natural Resources (WDNR) ~~within a month of discovery.~~

Reporting

DPC will ~~annually~~ submit to the WDNR a report, ~~which documents the past year’s monitoring results and control efforts. The report will be submitted no later than December 31 of each year if the current current stands increases in size by more than 10% or if new stands are discovered.~~

Purple Loosestrife Spring Monitoring Survey Data Sheet

Site Name:	Time:	Observer Name(s):
Location: Latitude: Longitude:	Weather:	
Date of Observation:	Temperature:	

Quadrant	<i>Galerucella</i> (use Chart A)			Purple Loosestrife (use Chart B)		
	Eggs	Larvae	Adults	% Damage	% Cover	# of Stems
1						
2						
3						
4						
5						

Chart A. Abundance Categories	
0	1
1 – 9	2
10 – 49	3
50 – 99	4
100 – 499	5
500 – 1000	6
> 1000	7

Chart B. Frequency Categories	
0	A
1 – 5 %	B
5 – 25 %	C
26 – 50 %	D
50 – 75 %	E
75 – 100 %	F

Other Observations:



P-1960 DPC PL surveys and request for amendment

Laatsch, Cheryl - DNR to: Tony K Mc Kimmy

09/24/2014 02:43 PM

History:

This message has been forwarded.

Thanks for the report.

1. Please change the fall surveys to every two years, and eliminate the spring surveys.
2. Please only report when there has been a PL stand change of 10% of the baseline or more, or a significant reduction in beetle activity.
3. All files should be available if requested for review.
4. If new plant stands are observed, please contact me to discuss if any actions are needed.

If you have questions about appropriate times of year to monitor or need assistance with beetle control efforts, please work directly with Brook Woods, who is one of our PL expert.

Thanks for your efforts.

We are committed to service excellence.

Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

Cheryl Laatsch
Statewide FERC Coordinator - Watershed Bureau/Water Division
Wisconsin Department of Natural Resources
N7225 Highway 28, Horicon WI 53032
Phone: 920-387-7869
Fax: 920-387-7888
Cheryl.laatsch@wisconsin.gov

dnr.wi.gov



September 3, 2014

Ms. Cheryl Laatsch
Statewide FERC Coordinator
WDNR Horicon Marsh Education and Visitor Center
N7725 Highway 28
Horicon, WI 53032

Dear Ms. Laatsch:

**SUBJECT: Flambeau Hydroelectric Project (FERC Project No. 1960-002) - Article 401(Q)
2014 Purple Loosestrife Annual Report**

The purpose of this letter is to update you on purple loosestrife monitoring and control activities that took place during the 2014 calendar year for Dairyland Power Cooperative's Flambeau Hydroelectric Project (FERC Project No. 1960-002). The information is submitted to the WDNR in order to comply with Article 401(Q) of the Flambeau Hydroelectric Project License.

Existing Purple Loosestrife Stand

Currently, there is only one purple loosestrife infested area within the Project's boundary. The area is located in the southwest quarter of the Project at latitude 45° 29.290' N and longitude 91° 2.965' W. The stand is approximately one acre in size.

From the discovery of the infestation until 2002, the stand was chemically treated using herbicides. Chemical control was subsequently abandoned in 2002 in favor of biological control. During each of 2002 and 2003, 4,000 *Galerucella* beetles were released at the site and during each of 2005, 2006, and 2007, an additional 8,000 beetles were released.

A spring survey of the beetle release site was conducted on June 11, 2014. No adult *Galerucella* beetles were observed in the survey area; however, as in past years, window-hole damage was seen on a few purple loosestrife plants throughout the stand, indicating the presence of a small, residual *Galerucella* population.

The stand was also inspected during the annual shoreline survey of the Dairyland Reservoir in August. No flowering purple loosestrife plants were visible in the stand. The utility right-of-way, which runs through a portion of the stand, was chemically treated in 2014 to reduce plant undergrowth in the area. This treatment also likely eliminated some purple loosestrife plants. Based on recent spring survey results, Dairyland feels that no further treatment of this area is warranted at this time.

A Touchstone Energy Cooperative 

Ms. Cheryl Laatsch
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September 3, 2014

Annual Shoreline Survey of the Dairyland Reservoir

An annual shoreline survey of the Dairyland Reservoir took place on August 26 and 27, 2014. No new purple loosestrife stands or individual plants were identified during the survey.

Purple Loosestrife Monitoring Plan Modification

Due to decreasing purple loosestrife density in the bio-control area and a *Galerucella* beetle population that is also depressed, Dairyland feels that the value of the spring monitoring of this site has decreased to the point where it is no longer needed. Dairyland requests that the current purple loosestrife monitoring plan for the Project be amended to require just the annual fall survey of the Project boundary. The current bio-control area would continue to be monitored during the fall survey, and additional control measures could be implemented if deemed necessary.

If you have questions regarding any of the past years' monitoring/control activities or the proposed monitoring plan modification, feel free to contact me at (608) 787-1492. I would be happy to discuss any concerns that you may have.

Sincerely,



Bradley P. Foss
Senior Environmental Biologist

BPF:krm

cc: Mr. Jeff Scheirer, Fisheries Biologist
WDNR Park Falls Service Center
875 S 4th Avenue
Park Falls, WI 54552

Ms. Cheryl Laatsch
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bcc: Ben Campbell
Tony McKimmy

Document Content(s)

2014FHS_PurpleLsestrifeMgmtPlantoFERC_10072014_Art401Q.PDF.....1-17