

2021 Purple Loosestrife Inventory
for
Flambeau Crowley Hydroelectric Project
FERC Project #2473
Flambeau Hydro, LLC
Price County, Wisconsin

Submitted by:



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Summary of Purple Loosestrife Inventory for Flambeau Crowley Hydroelectric Project, FERC #2473

On August 5, 2021, White Water Associates, Inc. performed an inventory of purple loosestrife at the Flambeau Crowley Project. The method of inventory approved and modified by a Federal Energy Regulatory Commission (FERC) Order (June 18, 2003) 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 Flambeau Hydro, LLC (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 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.

2021 Observations

The Flambeau Crowley Project boundary was divided into three different areas; *the impoundment* (from approximately 500 feet downstream of the Pixley Dam to the Crowley Dam), *FHLLC-owned property within the project boundary* (FHLLC-owned property adjacent to the dam and powerhouse), and *the tailrace* (from the dam and powerhouse to approximately 500 feet downstream of the dam).

The impoundment was surveyed by boat and one purple loosestrife plant was found. On the south side of HWY 70 at 6 Mile Creek there was one site that had purple loosestrife plants (Table 1). These sites were observed on foot.

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

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

Site CRRL had 20+ plants with no treatment. FLCRPL002 had three plants and could not be reached.

Maps of purple loosestrife locations observed in 2021 is available in Appendix A. Appendix B provides tables of historical purple loosestrife data as well as observations made in 2021. Appendix C provides scans of field data sheets. Appendix D provides photos taken at the project area.

Appendix A

Maps



Map 1. Locations of purple loosestrife at Flambeau Crowley in 2021.



Map 2. Locations of purple loosestrife at Flambeau Crowley in 2021 (CRPL2).



Map 3. Locations of purple loosestrife at Flambeau Crowley in 2021 (Combined to CRRL).

Appendix C

Scans of Datasheets

Purple Loosestrife Survey

Crawley

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Date 8-5-21 Conducted By Hempainen Caron

HWL 142.2 TWL 154.2 CFS 712 Equipment Used: Binoculars, shovel, bag

Air Temp: 71 °C Wind Speed: 59 Barometer: 29.95 Sky Conditions: 100% clouds

Time Survey Started 11:00 Time Survey Ended 12:30 Boat (14ft or Canoe) and/or Foot

Latitude Start BL Longitude End BL

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

Description of Location _____

Historic Info: _____

Purple Loosestrife Found: Yes or No

Information				
Site	<u>CRRL</u>	<u>CRDL2</u>		
Time	<u>11:02</u>	<u>11:18</u>		
Photo ID	<u>-</u>	<u>9321</u>		
Location	<u>across road</u>	<u>near dam</u>		
Single or Multi-stem	<u>Multi</u>	<u>Multi</u>		
# of Plants	<u>20+</u>	<u>3</u>		
Acreage est.	<u>7</u>	<u>71</u>		
Stand Area Density	<u>3x15</u>	<u>1x3</u>		
Size Colony S=0-5, M=6-50, L=>50~	<u>M</u>	<u>S</u>		
Plant Height ~ Ft	<u>4</u>	<u>4</u>		
Flowering %	<u>100%</u>	<u>100</u>		
Beetle Feeding?	<u>NO</u>	<u>NO</u>		
Plant Vigor (Very poor to good)	<u>good</u>	<u>good</u>		
Plant Removed (explain)	<u>NO</u>	<u>NO</u>		

too many PP

Information				
Site				
Time				
Photo ID				
Location				
Single or Multi-stem				
# of Plants				
Acreage est.				
Stand Area Density				
Size Colony S=0-5, M=6-50, L=>50~				
Plant Height ~ Ft				
Flowering %				
Beetle Feeding?				
Plant Vigor (Very poor to good)				
Plant Removed (explain)				

Other Species Observed:

Purple Loosestrife Survey

Crowley

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Date 8-5-21 Conducted By Kemppainen / Caron

HWL 417.79 TWL 416.2 CFS 712 Equipment Used: Bno

Air Temp: 16°C Wind Speed: 510 Barometer: 29.92 Sky Conditions: raining / cloudy

Time Survey Started 12:4 Time Survey Ended 12:50 Boat (14ft or Canoe) and/or Foot

Latitude Start canoe portage Longitude End 11 11

Location of Survey Area: Tailrace Bypass Reach Impoundment FHLLC Property

Description of Location _____

Historic Info: _____

Purple Loosestrife Found: Yes or No

Information					
Site					
Time					
Photo ID					
Location					
Single or Multi-stem					
# of Plants					
Acreage est.					
Stand Area Density					
Size Colony S=0-5, M=6-50, L=>50~					
Plant Height ~ Ft					
Flowering %					
Beetle Feeding?					
Plant Vigor (Very poor to good)					
Plant Removed (explain)					

Information					
Site					
Time					
Photo ID					
Location					
Single or Multi-stem					
# of Plants					
Acreage est.					
Stand Area Density					
Size Colony S=0-5, M=6-50, L=>50~					
Plant Height ~ Ft					
Flowering %					
Beetle Feeding?					
Plant Vigor (Very poor to good)					
Plant Removed (explain)					

Other Species Observed:

Appendix D

Photos



Photo 1. Purple loosestrife growing along roadside (photo from 2020). No hand-pulling same location 2021 (CRRL).



Photo 2. Purple loosestrife growing on wooded bank (CRPL002).