**CONSOLIDATED WATER POWER COMPANY** 

General Offices 610 High Street, Wisconsin Rapids, WI 54495 A subsidiary of Verso Corporation

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Office of the Secretary Federal Energy Regulatory Commission 888 1<sup>st</sup> Street, N.E. Washington, D.C. 20426 (VIA ELECTRONIC FILING)

# Wisconsin Rapids Project, FERC No. 2256 - Article 409 Purple Loosestrife Monitoring – Biennial Report for 2020/21

Dear Secretary:

Article 409 of the Wisconsin Rapids Hydroelectric Project License and the Order approving and modifying Consolidated Water Power Company's (CWPCo) Purple Loosestrife Monitoring Plan required annual monitoring of the noxious plants within project waters, filing a report every two years. Enclosed are the results for the 2020/21 monitoring along with the accompanying purple loosestrife plant location project maps.

#### Background

Article 409 requires purple loosestrife monitoring while it is in boom and documenting plant sites and plant densities. CWPCo denotes plant densities by: (1) small; 1-5 plants, (2) medium; 6-50 plants and (3) dense; >50 plants. For small to medium densities, past control methods included: (1) hand pulling and removal of whole plant or (2) cut plant flower tops off and leave rest of plant for beetles to feed on when beetle activity observed or (3) chemical treatment. For site 12 located in the bedrock below the Wisconsin Rapids dam, control is with the introduction of beetle pots to further establish the beetle population for control. This area is difficult to control the plants with other means due to the rock outcroppings. CWPCo partners with the Wood County Conservation agency to raise the beetles for transplanting to site 12, with the last pots placed in 2016.

Starting with the 2014/15 biennial report and continuing after, the Google Earth based coordinate system will used to mark the purple loosestrife locations. CWPCo feels this coordinate system is more universal for tracking the purple loosestrife colonies.

## **Background: Recent Biennial Observations**

Biennial 2016/17 Observations:

The biennial 2016/17 saw no new purple loosestrife sites observed. For the period, purple loosestrife was present at two sites (sites 2, 12) in 2016 and six sites (sites 2, 6, 7, 10, 11, 12) in 2017, with sites 2 and 12 being repeat sites when compared to the 2014/15 biennial period. For this biennial, all sites were observed with beetle activity, thus indicating a thriving beetle population exists within the project boundary to assist with the control of purple loosestrife. Overall, the plant sites observed had similar counts to the 2014/15 biennial period or a slight increase compared to the 2012/13 biennial period. With these reported levels and observed beetle activity, project operations were not being impacted by the presence of purple loosestrife.

## Biennial 2018/19 Observations:

The biennial 2018/19 saw no new purple loosestrife sites observed. For the period, purple loosestrife was present at three sites (sites 1, 2, 12) in 2018 and four sites (sites 2, 11, 12, 16) in 2019, with sites 2

and 12 being repeat sites when compared to the 2016/17 biennial period. For this biennial, all sites were observed with beetle activity, thus indicating a thriving beetle population exists within the project boundary to assist with the control of purple loosestrife. Overall, the plant sites observed had similar counts to the 2014/15 and 2016/17 biennials period or a slight increase compared to the 2012/13 biennial period. With these reported levels and observed beetle activity, project operations were not being impacted by the presence of purple loosestrife.

# 2018/19 Control Methods

Control methods administered in 2018/19 involved either: (1) hand pulling and removal of whole plant or (2) flower seed top removal where beetle activity was observed with plant densities less than 50 plants. For more than 50 plant densities, the control method is to maintain a healthy beetle population through raised beetle pot introduction (site 12). Beetle activity was ranked and recorded by % leaf damage (observed bee-bee like holes in leaves) as follows: (1) light, <15% leaves, (2) medium, 15% to 30%, or (3) heavy, >30%.

# **Biennial 2020/21 Observations**

The biennial 2020/21 saw no new purple loosestrife sites observed. For the period, purple loosestrife was present at two sites (sites 11 and 12) in 2020 and three sites (sites 11, 12 and 18) in 2021, with these sites being repeat sites when compared to the historical observations. For sites 11 and 18, all plants were removed by the roots. For this biennial, all sites were observed with beetle activity, thus indicating a thriving beetle population exists within the project boundary to assist with the control of purple loosestrife. Overall, the plant sites observed had similar counts to the 2014/15, 2016/17 and 2018/19 biennial periods or a slight increase compared to the 2012/13 biennial period. With these reported levels and observed beetle activity, project operations were not being impacted by the presence of purple loosestrife. Observations conducted during summers of 2020 (vehicle July 24<sup>th</sup> week and boat July 28<sup>th</sup>).

## 2020/21 Control Methods

Control methods administered in 2020/21 involved hand pulling and removal of whole plant. For more than 50 plant densities with beetle activity, the control method is to maintain a healthy beetle population without any control method (site 12). Beetle activity was ranked and recorded by % leaf damage (observed bee-bee like holes in leaves) as follows: (1) light, <15% leaves, (2) medium, 15% to 30%, or (3) heavy, >30%.

CWPCo continues to distribute information regarding invasive species (PUBL-WM-250-95) via its recreational brochure which is free to the public.

Wisconsin Rapids Hydroelectric Project - Purple Loosestrife Monitoring for 2020/2021

If there are any questions, please feel free to contact us at (715) 422-3927 or email tom.witt@versoco.com.

# CONSOLIDATED WATER POWER COMPANY

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Thomas J. Witt Resources Manager

Enclosure: Purple Loosestrife Location Maps (2)

File: Wisconsin Rapids, LG-90-30, Article 409

cc: Ms. Cheryl Laatsch, Wisconsin Department of Natural Resources (email copy) Mr. Nicholas Utrup, U.S. Fish & Wildlife Service, St. Paul, MN (email copy)

# **Table 1 – Purple Loosestrife Monitoring Site Data**

Wisconsin Rapids Hydroelectric Project – Purple Loosestrife Monitoring for 2010 - 2021

Site	Description	GPS	Plt	Beetle	Chem	Action Taken
No	Description	Coordinates	Density	Deene	Chem	
110		Google Earth	2 0110109	Activity	Applied	
1	Small bedrock	Lat 44.4202,	2 plts	None	No	2010 – removed
	outcrop E. of	Long -89.7984	5 plts	Heavy	No	2011 - removed flower tops, rest for
	Big Island					beetles
			None			2012/13 - no plants
			2 plts			2014 – removed
			None	None	No	2015 – no plants
			None		<b>N</b> 7	2016/17 – no plants
			2 plts	Heavy	No	2018 - removed
	0 1	1 + 44 4240	None	N	N	2019-21 – no plants
2	Sandy	Lat 44.4249,	2 plts	None	No	2010 – removed
	shoreline of a small island	Long -89.7944	None 2 mlta	Nama	N	2011 - no plants
	small island		2 plts None	None	No	2012 - removed 2013/14 - no plants
			7 plts	Medium	No	2015 – removed
			5 plts	Heavy	No	2015 – removed flower tops, rest
			4 plts	Heavy	No	for beetles
			3 plts	Heavy	No	2018 – removed
			2 plts	Heavy	No	2019 – removed
			None	Ticavy	110	2020/21 - no plants
3	Island below	Observations	rione			Starting with 2017 biennial report, this
U	Biron Dam –	under Biron				site will no longer be part of this
	Out of Project	Project Report				report as it is under the Biron
	Boundary					Hydroelectric Project, P-2192
4	S. Tip of Big	Lat 44.4072,	2 plts	Heavy	No	2010 - removed flower tops, rest for
	Island	Long -89.8171	1	5		beetles
			None			2011 - no plants
			None			2012 - no plants
			None			2013 - no plants
			2 plts	Heavy	No	2014 - removed flower tops, rest for
						beetles
			None			2015/21 – no plants
5	SE Shoreline	Lat 44.4039,	2 plts	None	No	2010 – removed
	of Hunter Is.	Long -89.8221	2 plts	None	No	2011 - removed
	(Kraft Mill)	1	None			2012/21 - no plants
6	E. Shoreline	Lat 44.4069,	16 plts	Heavy	No	2010 - removed flower tops, rest for
	adjacent to	Long -89.8090	0.1		<b>N</b> 7	beetles
	Pleasant View		2 plts	Heavy	No	2011 - removed flower tops, rest for
	Lane		None			beetles
			None None			2012 - no plants 2013 - no plants
			None			2013 - no plants 2014 - no plants
			1 plt	Heavy	No	2014 - no plants 2015 - removed flower tops, rest for
			1 pit	i icav y	110	beetles
			None			2016 – no plants
			3 plts	Light	No	2017 – removed
			None			2018/21 - no plants
						. <u> </u>

Site	Description	GPS	Plt	Beetle	Chem	Action Taken
No		Coordinates Google Earth	Density	Activity	Applied	
7	Small Island and E	Lat 44.4087, Long -89.8059	4 plts None	None	No	2010 – removed 2011 - no plants
	Shoreline /	Long -89.8039	None			2011 - no plants 2012/16 - no plants
	Strawberry		2 plts	Light	No	2017 – removed
	Lane		None	0		2018/21 – no plants
8	E. Shoreline	Lat 44.4093,	8 plts	None	No	2010 – removed
	above	Long -89.8046	1 plt	None	No	2011 – removed
	Strawberry		None			2012/13 - no plants
	Lane		4 plts	Medium	No	2014 - removed flower tops, rest for beetles
			4 plts	Heavy	No	2015 - removed flower tops, rest for beetles
			None			2016/21 – no plants
9	E. Shoreline	Lat 44.4165,	None		No	2010/11 - no plants
	of Big Island	Long -89.8007	None			2012/21 – no plants
10	Sm Island E of	Lat 44.4154,	4 plts	None	No	2010 – removed
	Big Island	Long -89.7996	None			2011 - no plants
	near		None			2012/13 - no plants
	Cranberry		None			2014/15 - no plants
	ditch outfall		None 4 plts	Heavy	No	2016 - no plants 2017 - removed flower tops, rest for
			4 pits	Tieavy	INU	beetles
			None			2018/21 – no plants
11	E Shoreline	Lat 44.4019,	None		No	2010 - no plants
	near Canoe	Long -89.8187	None			2011 - no plants
	Take Out		None			2012 - no plants
			2 plts	Heavy	No	2013 – removed
			2 plts	Medium	No	2014 - removed flower tops, rest for beetles
			4 plts	Medium	No	2015 - removed flower tops, rest for beetles
			None			2016 – no plants
			2 plts	Light	No	2017 – removed
			None			2018 – no plants
			2 plts	Light	No No	2019 – removed 2020/21 – removed
			2 plts	Light	INO	2020/21 – removed

Site	Description	GPS	Plt	Beetle	Chem	Action Taken
No		Coordinates Google Earth	Density	Activity	Applied	
12	Tail water	Lat 44.3965,	50-100	Heavy	No	2010 - place 8 beetle pots, monitor
	area of Spillway Section	Long -89.8206	plts 50-100 Plts	Light	No	2011 - place 2 beetle pots, monitor
	Section		50-100	Light	No	2012 – monitor
			plts 50-100 plts	Light	No	2013- place 4 beetle pots, monitor
			50-100 plts	Medium	No	2014 - place 10 beetle pots, monitor
			50-100 plts	Medium – Heavy	No	2015 - place 4 beetle pots, monitor
			50-100 plts	Medium – Heavy	No	2016 - place 6 beetle pots, monitor
			50-100	Medium	No	2017 - monitor
			plts 50-100 Plts	– Heavy Medium – Heavy	No	2018/19 – monitor
			50-100 Plts	Medium - Heavy	No	2020/21 - monitor
13	E Shoreline below	Lat 44.4155, Long -89.7980	6 plts	Heavy	No	2010 - removed flower tops, rest for beetles
	Cranberry Ditch Outfall	Long 0,1,900	5 plts	Heavy	No	2011 - removed flower tops, rest for beetles
			None			2012/21 - no plants
14	W Shoreline, above RR	Lat 44.4024, Long -89.8241	4 plts	Heavy	No	2010 - removed flower tops, rest for beetles
	trestle	6	None None			2011 - no plants
15	W Shoreline	Lat 44.4085,	None		No	2012/21 - no plants 2010 - no plants
10	above Kraft	Long -89.8194	3 plts	None	No	2011 – removed
	Mill area		None			2012/21 - no plants
16	E. Shoreline	Lat 44.4123,	4 plts	None	No No	2010 – removed
	above Shorewood	Long -89.8031	1 plt None	None	No	2011 – removed 2012/13 - no plants
	Terrace		None			2012/13 - no plants 2014/15 - no plants
	Tenface		None			2016/17 - no plants
			None			2018 – no plants
			2 plts	Medium	No	2019 – removed
			None			2020/21 – no plants
17	Small Island	Lat 44.4106,	None		No	2010 - no plants
	above Hunter	Long -89.8087	4 plts	None	No	2011 – removed
	Island		1 plt	Medium	No	2012 - removed
			None			2013 - no plants
			None			2014/21 - no plants

Site No	Description	GPS Coordinates Google Earth	Plt Density	Beetle Activity	Chem Applied	Action Taken
18	Big Is., SE Cove	Lat 44.4165, Long -89.8147	None 2 plts None 2 plts None None 2 plts	None Heavy Light	No No No	2010 - no plants 2011 - removed 2012/13 - no plants 2014 - no plants 2015 - removed 2016/19 - no plants 2020 - no plants 2021 - removed

Notes: No chemical applications for 2010 - 2021. Beetle activity rating based on percentage of leaves with beebee holes from beetle feeding: light less than 15%, medium 15% to 30%, heavy greater than 30%.

# Attached Purple Loosestrife Plant Location Maps (two maps)