



2301 NORTH THIRD STREET WAUSAU, WISCONSIN 54403

715/848-2976 FAX: 715/842-0284

Web Site: www.wvic.com Email: staff@wvic.com

December 29, 2014

The Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, D.C. 20426
eFiled FERC Online 12/29/2014

RE: WVIC Project 2113; 2014 Purple Loosestrife Annual Monitoring Report

In accordance with the Five-Year Summary and Proposed Purple Loosestrife Monitoring Plan Wisconsin Valley Improvement Company (WVIC) submitted on December 30, 2013, WVIC hereby submits the 2014 Purple Loosestrife Annual Monitoring Report (Attachment 1). The Report includes: annual monitoring results identifying relative abundance of purple loosestrife, locations with *Galerucella* sp. beetle activity, vegetative damage assessments, and corresponding tables and figures. Documentation of consultation with the U.S. Fish and Wildlife Service (USFWS) and Wisconsin Department of Natural Resources (WDNR) is included in Attachment 2.

Sincerely,

A handwritten signature in black ink, appearing to read 'Ben Niffenegger', is written over a horizontal line.

Ben Niffenegger
Environmental Specialist

Enclosures:

Attachment 1: 2014 Purple Loosestrife Annual Monitoring Report

Attachment 2: Documentation of agency consultation.

Cc via email: Pat Grant, Environmental Protection Specialist, FERC

Attachment 1

Wisconsin Valley Improvement Company

**2014 Purple Loosestrife Annual
Monitoring Report**

December 29, 2014

Wisconsin Valley Improvement Company

2014 Purple Loosestrife Annual Monitoring Report

Introduction

In compliance with Wisconsin Valley Improvement Company's (WVIC) 1996 FERC license (Project No. 2113), the purple loosestrife control program became a part of WVIC's FERC approved 1997 Fish and Wildlife Management Plan (Article 413). The Fish and Wildlife Management Plan was updated in 2001, 2006 and 2011 in accordance with a five-year update requirement in WVIC's FERC license. WVIC submitted a Modified Purple Loosestrife Control Plan on November 26, 2008 as an amendment request to WVIC's Fish and Wildlife Management Plan. FERC issued an Order Amending the Plan June 16, 2009 and approved the Plan with minor reporting modifications. In accordance with the Five-Year Summary and Proposed Purple Loosestrife Monitoring Plan submitted December 30, 2013, WVIC's Annual Monitoring Report for 2014 follows.

2014 Field Monitoring Results

Willow Reservoir – On August 13, 2014 WVIC monitored the area of Willow Reservoir where purple loosestrife (PL) has historically occurred. Reservoir elevation was 1525.80 ft NGVD (3.55 ft. below full). The area was accessed by boat and then surveyed by walking the islands and exposed shoreline and counting both immature and mature plants. GPS readings were taken every 100 ft where plants were observed. The relative abundance of PL was recorded as A (1-5 plants), B (6-50 plants), or C (50+ plants). Figure 1 is a distribution and relative abundance map of recorded locations in 2014 and Table 1 lists GPS coordinates for each observation. There were 6 sites of 1-5 plants, 4 sites of 6-50 plants, and 2 sites of 50+ plants identified in 2014. PL was not identified outside the historic range at Willow. *Galerucella sp.* beetle activity has not been observed to date.

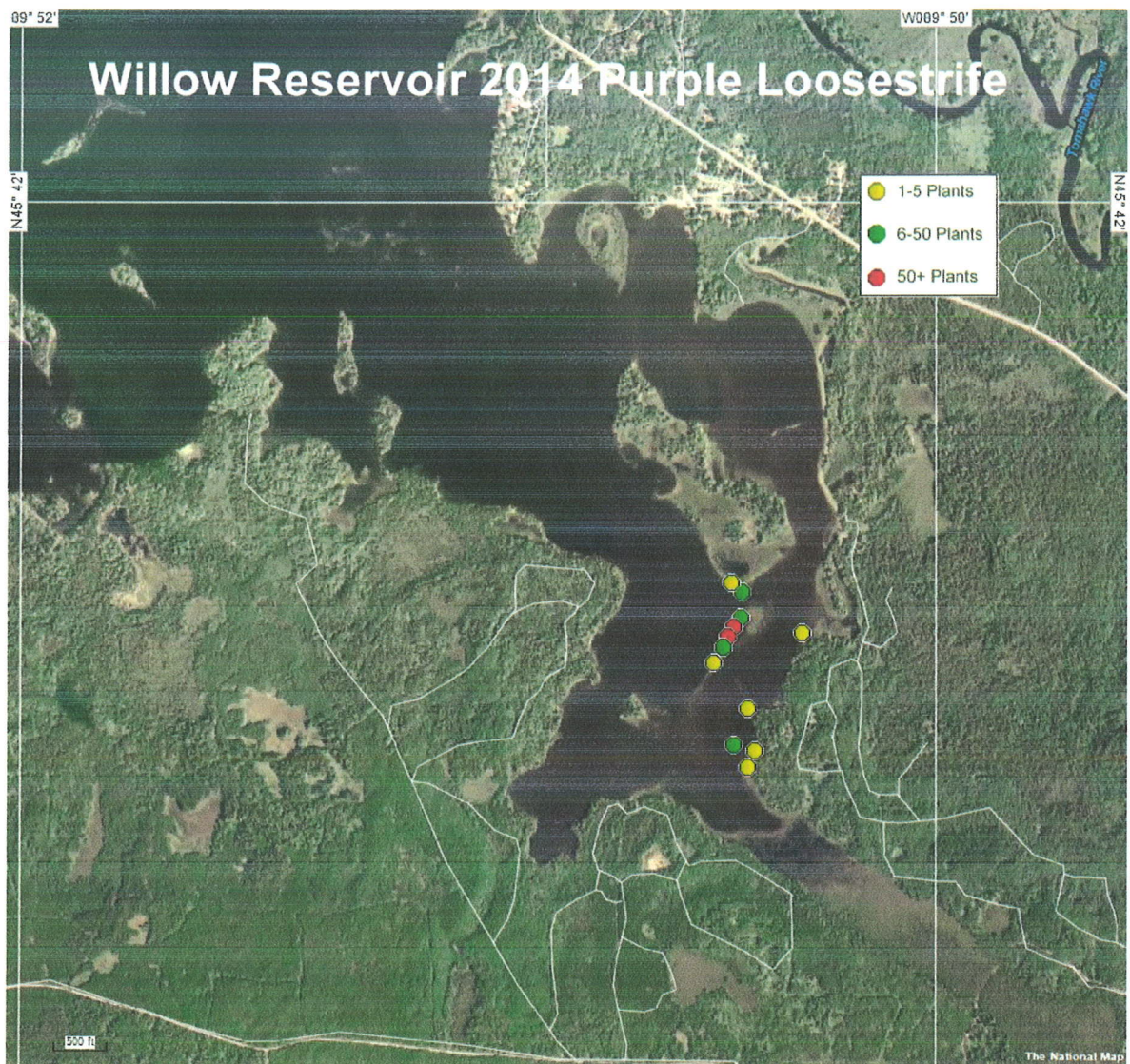
Rice Reservoir – On August 5-6, 2014 WVIC monitored the portions of Rice Reservoir where PL has historically occurred. Reservoir elevation was 1460.69 & 1460.64 ft. NGVD (2.56 & 2.61 ft. below full). Figure 2 is a distribution and relative abundance map of recorded PL and beetle activity locations in 2014 and Table 2 lists GPS coordinates for each observation. There were 54 sites of 1-5 plants, 44 sites of 6-50 plants, and 9 sites of 50+ plants identified in 2014. PL was not observed outside the historic range at Rice.

Galerucella sp. beetle activity and leaf damage was identified at 32 sites in 2014 indicating beetle populations are continuing the natural expansion that has been observed since 2009 (Figure 4). Beetle activity was found at 8 of 9 sites with 50+ plants, 21 of 44 sites with 6-50 plants, and 4 of 50 sites with 1-5 plants. 2014 was the first season in which vegetative damage assessments were conducted at each site where beetle activity was identified. The percent of plants within each site exhibiting damage from beetle feeding was recorded using a 1-4 scale with the following representative values: 1 (1-25%), 2 (26-50%), 3 (51-75%), or 4 (76-100%). Using the same scale and values, the average level of leaf tissue area removed by beetle feeding per plant within each site was also recorded. Table 2 provides the percent range of plants damaged at each site and leaf tissue removed per plant within the site. Figure 6 displays the average damage scores (1-4 scale) for each of the PL relative abundance categories. The highest level of beetle activity was found at sites with 50+ plants where more damage was observed throughout the site and within individual plants as compared to sites with only 6-50 or 1-5 plants.

Spirit Reservoir – On August 5, 2014 WVIC monitored the portion of Spirit Reservoir where PL has historically occurred. Reservoir elevation was 1434.32 ft. NGVD (3.56 ft below full). Figure 3 is a distribution and relative abundance map of recorded PL locations in 2013 and Table 3 lists GPS coordinates for each observation. There were 11 sites of 1-5 plants, 6 sites of 6-50 plants, and 1 site of 50+ plants identified in 2014. PL was not identified outside the historic range at Spirit. *Galerucella sp.* beetle activity has not been observed since 2011 (Figure 5).

WVIC Purple Loosestrife Annual Monitoring Report – 2014

Figure 1



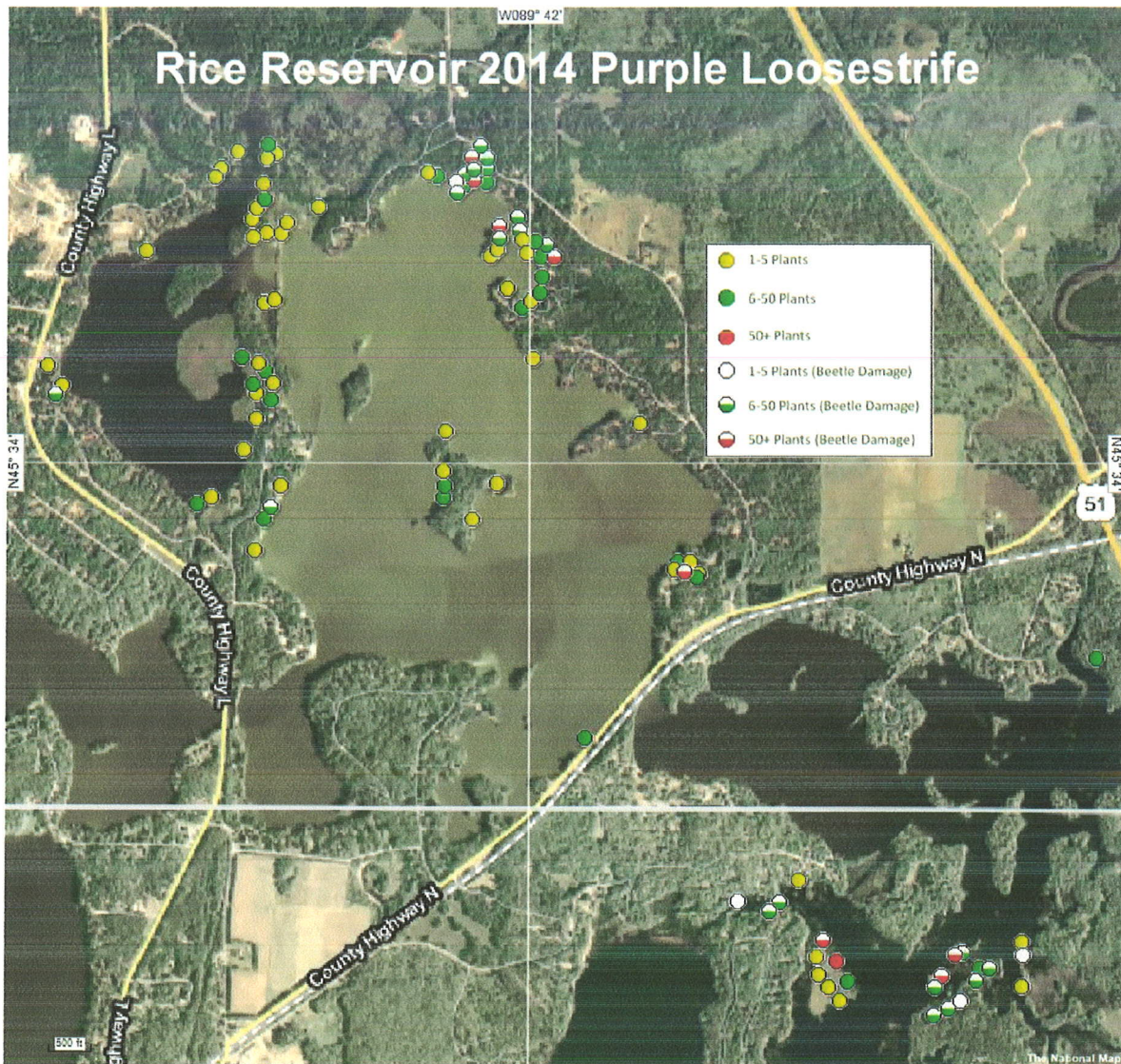
WVIC Purple Loosestrife Annual Monitoring Report – 2014

Table 1

Purple Loosestrife Survey - 2014						
Willow Reservoir						
Number	Latitude		Longitude		Amount	Beetle Activity
1	45°	41.337239	89°	50.292278	1-5 Plants	no
2	45°	41.220311	89°	50.410760	1-5 Plants	no
3	45°	41.156446	89°	50.394607	1-5 Plants	no
4	45°	41.131029	89°	50.409583	1-5 Plants	no
5	45°	41.29162	89°	50.483680	1-5 Plants	no
6	45°	41.415135	89°	50.445500	1-5 Plants	no
7	45°	41.165016	89°	50.440491	6-50 plants	no
8	45°	41.314754	89°	50.464032	6-50 plants	no
9	45°	41.360363	89°	50.426214	6-50 plants	no
10	45°	41.40039	89°	50.422165	6-50 plants	no
11	45°	41.331692	89°	50.453436	50+ plants	no
12	45°	41.34598	89°	50.440325	50+ plants	no

WVIC Purple Loosestrife Annual Monitoring Report – 2014

Figure 2



WVIC Purple Loosestrife Annual Monitoring Report – 2014

Table 2

Purple Loosestrife Survey - 2014						
Rice Reservoir						
Number	Latitude	Longitude	Amount	Beetles	% of Damaged Plants Per Site	% Tissue Damage Per Plant
1	45° 34.425265	89° 42.01835	1-5 plants	no		
2	45° 33.796445	89° 41.606197	1-5 plants	no		
3	45° 33.810476	89° 41.56329	1-5 plants	no		
4	45° 33.789117	89° 41.537863	1-5 plants	no		
5	45° 34.400742	89° 42.007663	1-5 plants	no		
6	45° 34.073988	89° 41.698282	1-5 plants	no		
7	45° 33.959324	89° 42.086568	1-5 plants	no		
8	45° 34.434941	89° 42.670626	1-5 plants	no		
9	45° 34.457688	89° 42.655781	1-5 plants	no		
10	45° 34.393893	89° 42.105859	1-5 plants	no		
11	45° 34.406355	89° 42.085496	1-5 plants	no		
12	45° 33.833249	89° 42.73793	1-5 plants	no		
13	45° 34.150845	89° 42.69031	1-5 plants	no		
14	45° 34.438471	89° 42.70787	1-5 plants	no		
15	45° 34.429032	89° 42.745658	1-5 plants	no		
16	45° 34.463844	89° 42.748907	1-5 plants	no		
17	45° 34.484393	89° 42.736022	1-5 plants	no		
18	45° 34.553121	89° 42.273886	1-5 plants	no		
19	45° 34.531848	89° 42.719492	1-5 plants	no		
20	45° 34.19856	89° 41.988101	1-5 plants	no		
21	45° 34.48654	89° 42.570399	1-5 plants	no		
22	45° 34.579745	89° 42.708157	1-5 plants	no		
23	45° 33.959153	89° 42.086297	1-5 plants	no		
24	45° 34.588401	89° 42.685733	1-5 plants	no		
25	45° 33.893035	89° 42.151442	1-5 plants	no		
26	45° 33.088692	89° 40.666788	1-5 plants	no		
27	45° 34.591896	89° 42.786413	1-5 plants	no		
28	45° 34.560564	89° 42.832594	1-5 plants	no		
29	45° 33.004232	89° 40.66624	1-5 plants	no		
30	45° 34.543882	89° 42.849083	1-5 plants	no		
31	45° 33.984551	89° 42.232282	1-5 plants	no		
32	45° 34.403524	89° 43.036835	1-5 plants	no		
33	45° 34.059751	89° 42.225433	1-5 plants	no		
34	45° 34.184284	89° 43.300237	1-5 plants	no		

WVIC Purple Loosestrife Annual Monitoring Report – 2014

Table 2 (cont.)

Number	Latitude	Longitude	Amount	Beetles	% of Damaged Plants Per Site	% Tissue Damage Per Plant
35	45° 34.330943	89° 42.057722	1-5 plants	no		
36	45° 34.146575	89° 43.262571	1-5 plants	no		
37	45° 34.30888	89° 41.996745	1-5 plants	no		
38	45° 33.934989	89° 42.856583	1-5 plants	no		
39	45° 34.024653	89° 42.768193	1-5 plants	no		
40	45° 32.977438	89° 41.156881	1-5 plants	no		
41	45° 34.082941	89° 42.736094	1-5 plants	no		
42	45° 33.002055	89° 41.187513	1-5 plants	no		
43	45° 34.132483	89° 42.73543	1-5 plants	no		
44	45° 33.025501	89° 41.215578	1-5 plants	no		
45	45° 33.06066	89° 41.221226	1-5 plants	no		
46	45° 34.189911	89° 42.730265	1-5 plants	no		
47	45° 34.304103	89° 42.714155	1-5 plants	no		
48	45° 33.205726	89° 41.270077	1-5 plants	no		
49	45° 34.309655	89° 42.687056	1-5 plants	no		
50	45° 33.956232	89° 42.669631	1-5 plants	no		
51	45° 33.474881	89° 41.846275	6-50 plants	no		
52	45° 33.812432	89° 41.597884	6-50 plants	no		
53	45° 33.78264	89° 41.544326	6-50 plants	no		
54	45° 33.628294	89° 40.467067	6-50 plants	no		
55	45° 34.534306	89° 42.115479	6-50 plants	no		
56	45° 34.54514	89° 42.248269	6-50 plants	no		
57	45° 34.502407	89° 42.71479	6-50 plants	no		
58	45° 34.605022	89° 42.70613	6-50 plants	no		
59	45° 33.93535	89° 42.232152	6-50 plants	no		
60	45° 33.956161	89° 42.226811	6-50 plants	no		
61	45° 33.037385	89° 40.781373	6-50 plants	no		
62	45° 34.295588	89° 42.019773	6-50 plants	no		
63	45° 33.922406	89° 42.897237	6-50 plants	no		
64	45° 34.322484	89° 41.970886	6-50 plants	no		
65	45° 34.35199	89° 41.963931	6-50 plants	no		
66	45° 33.013844	89° 41.13676	6-50 plants	no		
67	45° 34.391403	89° 41.968568	6-50 plants	no		
68	45° 34.150125	89° 42.746142	6-50 plants	no		
69	45° 34.421598	89° 41.982674	6-50 plants	no		

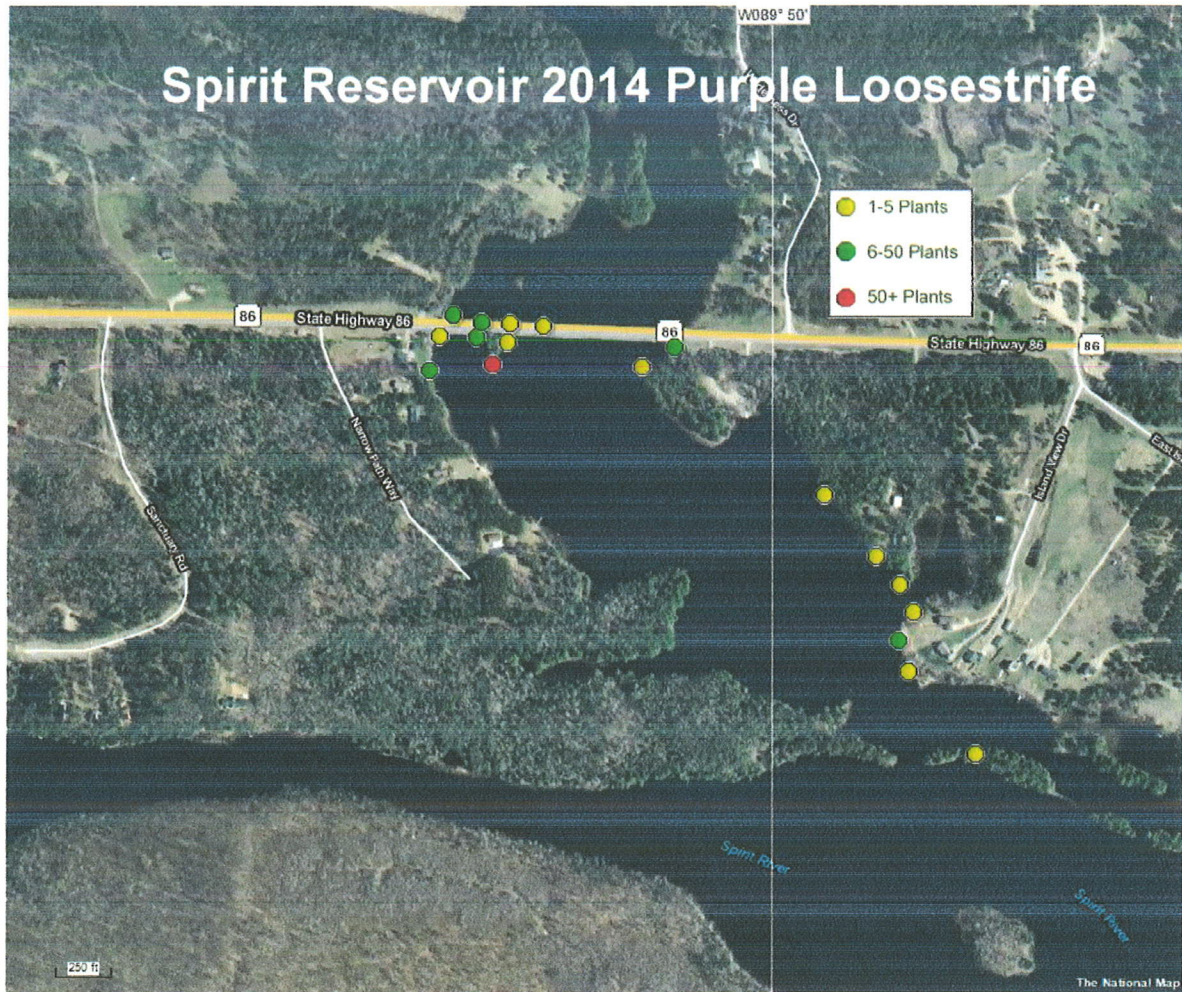
WVIC Purple Loosestrife Annual Monitoring Report – 2014

Table 2 (cont.)

Number	Latitude	Longitude	Amount	Beetles	% of Damaged Plants Per Site	% Tissue Damage Per Plant
70	45° 34.199879	89° 42.775817	6-50 plants	no		
71	45° 33.893156	89° 42.714298	6-50 plants	no		
72	45° 34.119558	89° 42.69636	6-50 plants	no		
73	45° 34.173758	89° 42.712976	6-50 plants	no		
74	45° 33.050552	89° 41.166074	50+ plants	no		
75	45° 33.165543	89° 41.432166	1-5 plants	yes	76-100	1-25
76	45° 32.977312	89° 40.833021	1-5 plants	yes	26-50	26-50
77	45° 34.53574	89° 42.197249	1-5 plants	yes	76-100	1-25
78	45° 33.06327	89° 40.661402	1-5 plants	yes	1-25	1-25
79	45° 34.558406	89° 42.148258	6-50 plants	yes	76-100	26-50
80	45° 34.514633	89° 42.194409	6-50 plants	yes	26-50	1-25
81	45° 34.466886	89° 42.031284	6-50 plants	yes	26-50	1-25
82	45° 33.038089	89° 40.753734	6-50 plants	yes	26-50	1-25
83	45° 34.426809	89° 42.081473	6-50 plants	yes	76-100	1-25
84	45° 32.961189	89° 40.865996	6-50 plants	yes	76-100	26-50
85	45° 34.560654	89° 42.112879	6-50 plants	yes	1-25	26-50
86	45° 34.580962	89° 42.113457	6-50 plants	yes	1-25	26-50
87	45° 34.6031	89° 42.132703	6-50 plants	yes	1-25	26-50
88	45° 34.529936	89° 42.173734	6-50 plants	yes	51-75	26-50
89	45° 34.550697	89° 42.173417	6-50 plants	yes	76-100	1-25
90	45° 33.015644	89° 40.790596	6-50 plants	yes	76-100	76-100
91	45° 33.067836	89° 40.824989	6-50 plants	yes	76-100	26-50
92	45° 34.129189	89° 43.280735	6-50 plants	yes	26-50	1-25
93	45° 33.003001	89° 40.900011	6-50 plants	yes	51-75	1-25
94	45° 34.413773	89° 41.953214	6-50 plants	yes	1-25	1-25
95	45° 34.442037	89° 42.025818	6-50 plants	yes	26-50	1-25
96	45° 33.163315	89° 41.320825	6-50 plants	yes	76-100	1-25
97	45° 33.146619	89° 41.34877	6-50 plants	yes	1-25	1-25
98	45° 32.948676	89° 40.904804	6-50 plants	yes	26-50	1-25
99	45° 33.916557	89° 42.69809	6-50 plants	yes	26-50	1-25
100	45° 33.79139	89° 41.578487	50+ plants	yes	76-100	26-50
101	45° 34.581279	89° 42.15652	50+ plants	yes	76-100	26-50
102	45° 34.450725	89° 42.081208	50+ plants	yes	76-100	26-50
103	45° 34.538445	89° 42.150988	50+ plants	yes	51-75	26-50
104	45° 33.064613	89° 40.848007	50+ plants	yes	76-100	51-75
105	45° 33.023655	89° 40.88249	50+ plants	yes	76-100	51-75
106	45° 34.392566	89° 41.938263	50+ plants	yes	51-75	51-75
107	45° 33.090448	89° 41.20281	50+ plants	yes	1-25	1-25

WVIC Purple Loosestrife Annual Monitoring Report – 2014

Figure 3



WVIC Purple Loosestrife Annual Monitoring Report – 2014

Table 3

Purple Loosestrife Survey - 2014						
Spirit Reservoir						
Number	Latitude		Longitude		Amount	Beetle Activity
1	45°	26.962645	89°	49.788556	1-5 plants	no
2	45°	27.023508	89°	49.857558	1-5 plants	no
3	45°	27.067146	89°	49.853097	1-5 plants	no
4	45°	27.087308	89°	49.866626	1-5 plants	no
5	45°	27.107631	89°	49.890830	1-5 plants	no
6	45°	27.153119	89°	49.945208	1-5 plants	no
7	45°	27.247431	89°	50.134221	1-5 plants	no
8	45°	27.265189	89°	50.274404	1-5 plants	no
9	45°	27.277566	89°	50.237551	1-5 plants	no
10	45°	27.278929	89°	50.272060	1-5 plants	no
11	45°	27.270072	89°	50.345921	1-5 plants	no
12	45°	27.0463	89°	49.868114	6-50 plants	no
13	45°	27.262393	89°	50.101065	6-50 plants	no
14	45°	27.279789	89°	50.302149	6-50 plants	no
15	45°	27.285808	89°	50.331105	6-50 plants	no
16	45°	27.269419	89°	50.306699	6-50 plants	no
17	45°	27.244761	89°	50.355435	6-50 plants	no
18	45°	27.249357	89°	50.290491	50+ plants	no

WVIC Purple Loosestrife Annual Monitoring Report – 2014

Figure 4

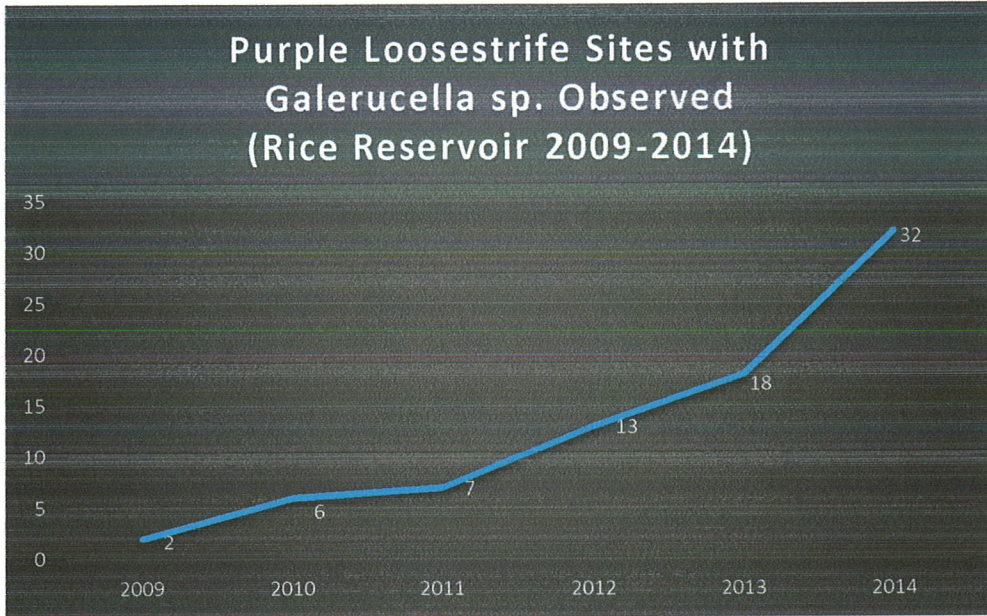
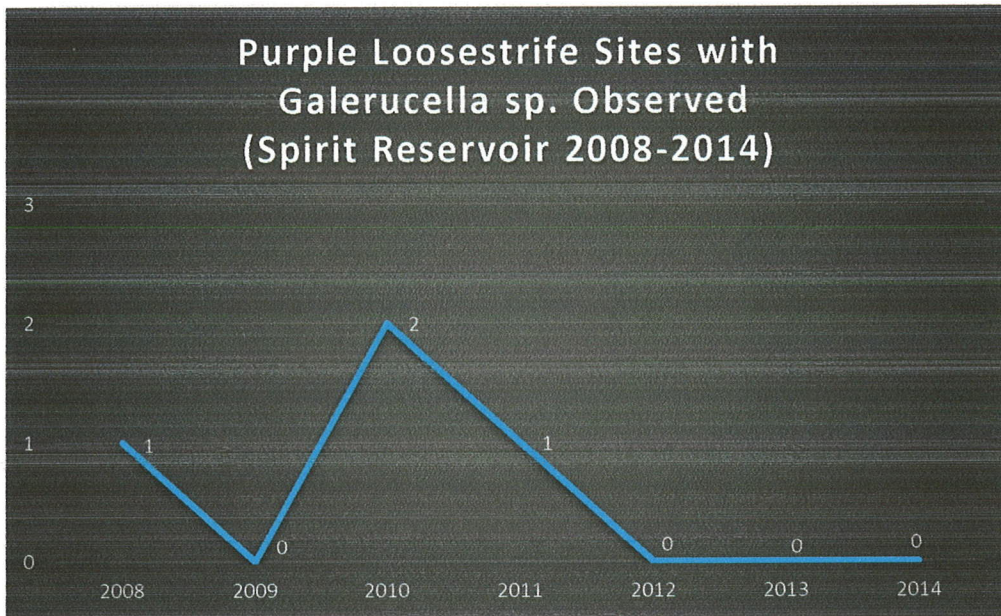
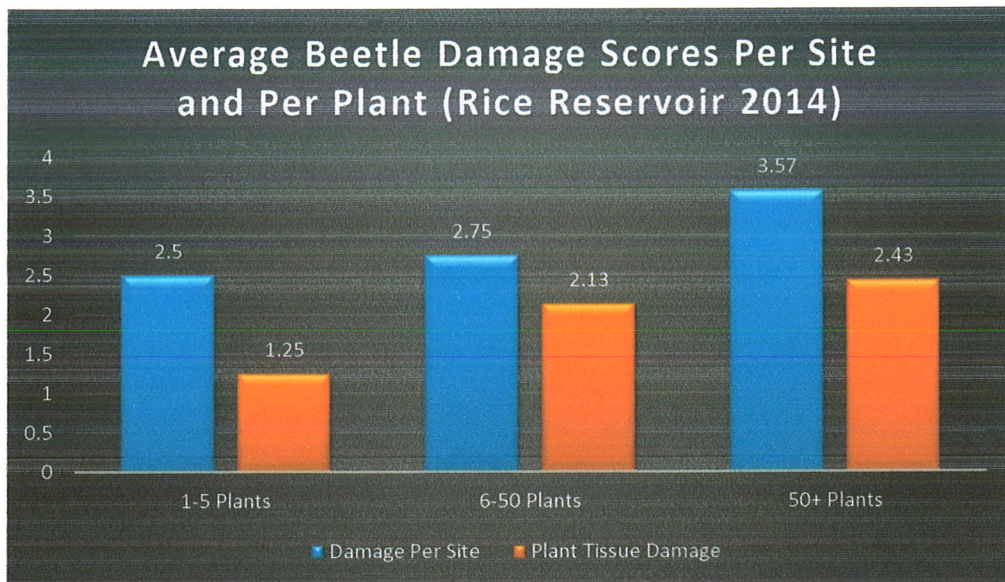


Figure 5



WVIC Purple Loosestrife Annual Monitoring Report – 2014

Figure 6



Attachment 2

**Consultation
with
WDNR and USFWS**

Ben Niffenegger

From: Utrup, Nick <nick_utrup@fws.gov>
Sent: Monday, December 01, 2014 7:08 AM
To: Ben Niffenegger
Cc: Laatsch, Cheryl - DNR; Plude, Timothy M - DNR (Timothy.Plude@wisconsin.gov); Gauthier Sr, Kevin J - DNR (Kevin.GauthierSr@wisconsin.gov)
Subject: Re: WVIC Purple Loosestrife Annual Monitoring Report-2014

Thanks Ben,

I will add this report to my files but will not be providing comments.

Nick

Nick Utrup
U.S. Fish and Wildlife Service
Twin Cities Field Office
4101 American Boulevard East
Bloomington, MN 55425

Office: 612-725-3548 Ext. 2204
Cell: 952-567-9616
FAX: 612-725-3609
Email: Nick_Utrup@fws.gov

On Tue, Nov 25, 2014 at 4:51 PM, Ben Niffenegger <Ben@wvic.com> wrote:

Cheryl and Nick:

Attached is WVIC's Purple Loosestrife Annual Monitoring Report-2014 for your review and comment.

Please provide any comments by December 25, 2014.

Thanks,

Ben Niffenegger / Environmental Specialist

Wisconsin Valley Improvement Company

2301 North Third Street / Wausau, WI 54403

Ben Niffenegger

From: Ben Niffenegger
Sent: Tuesday, December 16, 2014 3:12 PM
To: 'Plude, Timothy M - DNR'
Cc: Gauthier Sr, Kevin J - DNR; Laatsch, Cheryl - DNR; Nick Utrup - USFWS
Subject: RE: WVIC Purple Loosestrife Annual Monitoring Report-2014
Attachments: 2014 Annual Monitoring Report.pdf

Hi Tim,

Attached is our revised 2014 Annual Monitoring Report along with my responses to your comments below in red. If you have any additional questions or comments, please respond via email or phone by 12/23.

Thanks,

Ben Niffenegger / Environmental Specialist
715-848-2976 Ext. 304
www.wvic.com

From: Plude, Timothy M - DNR [mailto:Timothy.Plude@wisconsin.gov]
Sent: Friday, December 05, 2014 1:53 PM
To: Ben Niffenegger
Cc: Gauthier Sr, Kevin J - DNR; Laatsch, Cheryl - DNR; Nick Utrup - USFWS
Subject: RE: WVIC Purple Loosestrife Annual Monitoring Report-2014

Hello Ben,
Kevin and I have reviewed the report and provide the following comments:

-It's the first year reporting beetle damage, so the following year's reports should include comparisons. **WVIC has been reporting presence/absence of beetle damage in our Annual Reports since 2008 as depicted in Figures 4 & 5. 2014 was however the first year we attempted to quantify the level of beetle damage using percent based damage scores which we intend to continue providing in future reports for comparative purposes.**

-What are the changes from 2013 relating to PL specific locations and abundance? Any previous PL abundance and location info should be compared to 2014 in order to show changes/trends. **Due to the well documented annual variability that has been discussed in previous reports, it's difficult to provide meaningful interpretations of changes from year to year. WVIC will be providing additional analyses of changes/trends in our 2016 Fish and Wildlife Plan Update which will incorporate the 2009-2013 data provided in the Five-Year Summary Report submitted last year as well as data from the 2014-2015 Annual Reports.**

-There should be a fig 4 for the other reservoirs and if no data are available then least a mention of beetle presence/absence from past surveys. **Added text to the narrative reiterating beetles have not been observed at Willow to date. Also added text and provided a graph (Fig. 5) indicating beetles have not been observed at Spirit since 2011.**

Hope you are staying warm this winter.
Please feel free to contact me with any questions or concerns.
-Tim

We are committed to service excellence.

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

Tim Plude

Water Resources Management Specialist- Bureau of Water Quality

Wisconsin Department of Natural Resources

107 Sutliff Ave. Rhinelander, WI 54501

Phone: (715)365-8905

Fax: (715)365-8932

Timothy.Plude@wisconsin.gov



From: Ben Niffenegger [<mailto:Ben@wvic.com>]

Sent: Tuesday, November 25, 2014 4:52 PM

To: Laatsch, Cheryl - DNR; Nick Utrup - USFWS

Cc: Plude, Timothy M - DNR; Gauthier Sr, Kevin J - DNR

Subject: WVIC Purple Loosestrife Annual Monitoring Report-2014

Cheryl and Nick:

Attached is WVIC's Purple Loosestrife Annual Monitoring Report-2014 for your review and comment.

Please provide any comments by December 25, 2014.

Thanks,

Ben Niffenegger / Environmental Specialist
Wisconsin Valley Improvement Company
2301 North Third Street / Wausau, WI 54403
715-848-2976 Ext. 304 / Fax: 715-842-0284
E-mail: ben@wvic.com / www.wvic.com

Document Content(s)

2014 Purple Loosestrife Annual Monitoring Report.PDF.....1-17