## 143 FERC ¶ 62,081 UNITED STATES OF AMERICA FEDERAL ENERGY REGULATORY COMMISSION

Wausau Paper Mills, LLC

Project No. 2207-022

# ORDER AMENDING INVASIVE PLANT MONITORING PLAN PURSUANT TO ARTICLE 408

(Issued May 2, 2013)

1. On January 5, 2012, Wausau Paper Mills, LLC, licensee for the Mosinee Hydroelectric Project, <sup>1</sup> filed its Invasive Species Five-Year Comprehensive Report containing a request to amend its Invasive Plant Monitoring Plan, as approved in the Commission's Order Modifying and Approving Invasive Plant Monitoring Plan Pursuant to Article 408 (September 13, 2006 Order). <sup>2</sup> The licensee filed its 2012 monitoring report on January 15, 2013. The project is located on the Wisconsin River in Marathon County, Wisconsin.

## **Background**

2. Ordering paragraph (B) of the September 13, 2006 Order requires the licensee to conduct annual surveys for purple loosestrife (loosestrife) and Eurasian water milfoil (Eurasian milfoil) within the project boundary for a minimum of five consecutive years, beginning in 2007. Monitoring reports must include any recommended control methods for the management/elimination of these invasive species. Monitoring reports are due to the Commission by December 31 of each survey year and are required for at least five consecutive years. A comprehensive report containing a comparison of all the data collected over five years is required as the fifth monitoring report, due to the Commission by December 31, 2011. If after five consecutive years there are either no invasive plant species present or no spread of existing invasive plants, the licensee may then propose an alternative monitoring/reporting frequency in the 2011 report, after agency consultation. The licensee is required to continue monitoring for invasive plants annually until a

<sup>&</sup>lt;sup>1</sup> Order Issuing New License at 111 FERC ¶ 62,033 (2005).

<sup>&</sup>lt;sup>2</sup> 116 FERC ¶ 62,206 (2006).

proposed alternative monitoring frequency is approved by the Commission. The Commission reserved the right to require modifications to the monitoring plan and implementation of control measures, based on the licensee's monitoring reports or on new information, as it becomes available.

## **Five-Year Study Results**

3. The five-year study period began in 2007 and extended through 2011 for loosestrife, Eurasian milfoil and curly leaf pondweed (CL pondweed) at three impoundments: Half-Moon Lake, Cemetery Slough and Mosinee Flowage. The licensee controlled loosestrife by hand pulling or cutting it off and removing the clusters. The licensee also used two species of *Galerucella* (cella) beetles for biological control. Combined results of loosestrife shoreline distribution at the three project reservoirs are summarized in the table below (source: staff):

Year of loosestrife Survey	None Present (% distribution)	Light (1-5 plants) (% distribution)	Medium (6- 25 plants) (% distrib)	Heavy (26- 100 plants) (% distrib)	Very Heavy (>100 plants) (% distrib)
2007	45	34	11	3	7
2008	35	45	10	4	6
2009	47	33	6	4	10
2010	69	16	5	2	8
2011	44	37	8	2	9

- 4. The licensee also voluntarily monitored cella beetle density on stands of loosestrife throughout the project. Cella beetle density increased gradually since 2007 with the highest density found in 2010, which is when loosestrife was lowest in density. In 2011, cella beetles reduced to their lowest density due to unusually high water levels from high river flows at the Mosinee Project and the distribution of loosestrife began to increase.
- 5. The licensee monitored for Eurasian milfoil and CL pondweed using meander surveys and point intercept surveys. No Eurasian milfoil occurred in Half-Moon Lake, or in depths greater than five feet in Cemetery Slough and Mosinee Flowage. After 2007, the distribution of Eurasian milfoil continued to decline, with the least amount found in 2011. Likewise, no CL pondweed occurred in Half-Moon Lake and since 2007, the distribution of CL pondweed has declined with none found in the three impoundments in 2011.

## **Proposed Amendments**

- 6. In the January 5, 2012 filing, the licensee proposes amending the survey frequency for monitoring CL pondweed and Eurasian milfoil from annually to once every five years, with the next surveys occurring in 2016. The licensee surveyed cella beetles and loosestrife again in 2012 to see if the cella beetle population increased after the high flow incident in 2010/2011 and if the loosestrife distribution correspondingly decreased. If the cella beetle population rebounds and the loosestrife distribution decreases in 2012, the licensee recommends conducting less frequent loosestrife monitoring in addition to that for CL pondweed and Eurasian milfoil.
- 7. As a result of the 2012 cella beetle and loosestrife monitoring, on January 15, 2013, the licensee filed monitoring results indicating that cella beetle numbers increased since 2011 and loosestrife sightings and vigor appear the same in 2012 as in 2011 at the sites sampled for cella beetles. The licensee says cella beetle populations will continue to increase if there are no additional detrimental incidents to cella beetle development such as the high water events of 2010/2011.

#### **Agency Consultation**

8. On November 14, 2011, the licensee sent a copy of the five-year comprehensive report to the U.S. Fish and Wildlife Service (FWS) – Green Bay Field Office and the Wisconsin Department of Natural Resources (Wisconsin DNR) for review and comment as required by the September 13, 2006 Order. The licensee asked the resource agencies to provide comments by December 16, 2011. The resource agencies did not file written comments by the licensee's deadline. However, by memorandum<sup>3</sup> dated February 24, 2012, Wisconsin DNR writes that the survey frequency should not be lengthened to once every five years as recommended by the licensee. The Wisconsin DNR recommends surveying once every three years using rake fullness surveys and to complete CL pondweed surveys in June followed by a complete survey in late July for all invasive species. The Wisconsin DNR also recognizes that the survey frequency may need to change if major pool elevation changes occur due to species response to fluctuating water levels.

<sup>&</sup>lt;sup>3</sup> Memorandum from Scott Provost, Water Resources Specialist at Wisconsin DNR, to Cheryl Laatsch, Rob McLennan and Scott Watson. This memorandum was filed by Commission staff on April 4, 2013.

#### **Staff's Conclusions**

- 9. The licensee proposes no further monitoring until 2016. According to the September 13, 2006 Order, if the 2011 report finds no invasive plants present, or the existing populations show no sign of spread, the licensee may propose an alternative monitoring schedule at that time, and the licensee must continue monitoring annually for invasive plants until a proposed alternative is approved by the Commission.
- 10. Results in the comprehensive report show a decrease in CL pondweed and Eurasian milfoil since 2007, with no CL pondweed found in 2011. Continued monitoring is needed to determine if CL pondweed has been eliminated from the project reservoirs. Due to decreases in the distribution of Eurasian milfoil and CL pondweed since 2007, staff agrees that a decrease in monitoring frequency should be approved. Results show that loosestrife distribution was least in 2010. The licensee found the lowest quantity of cella beetles in 2011 due to high water levels. The licensee says the low quantity of cella beetles is correlated with the increase distribution of loosestrife; staff agrees.
- 11. Staff notes that loosestrife is extremely prolific. The literature indicates that a single, mature loosestrife plant can produce more than 2.5 million seeds annually (Southeast Exotic Pest Plant Council, 2013). In addition, although it is a perennial, loosestrife is capable of producing viable seeds during its first growing season. Given its high seed output and its ability to produce seeds in its first growing season, loosestrife can establish substantial soil seed banks, remaining viable for years (Forest Service, 2013).<sup>5</sup> The Forest Service documents that loosestrife stands have contained an average of 37,963 loosestrife seeds per square foot in the top two inches of soil. While, every stand of loosestrife is different, the prolific nature of this invasive plant justifies using caution when reducing the frequency of monitoring. To lengthen the monitoring intervals from annually to every five years could result in increased quantities of invasive plants that could affect native species. An increased invasive population could also result in the more costly use of a combination of multiple control methods. While the numbers of invasive plants have decreased over the past five years, the quantity of seed in the seedbank is unknown; therefore, continued monitoring is prudent.

<sup>&</sup>lt;sup>4</sup> Published online March 19, 2013 at <a href="http://www.se-eppc.org/manual/loosestrife.html">http://www.se-eppc.org/manual/loosestrife.html</a>.

<sup>&</sup>lt;sup>5</sup> Published online March 19, 2013 at <a href="http://www.fs.fed.us/database/feis/plants/forb/lytsal/all.html">http://www.fs.fed.us/database/feis/plants/forb/lytsal/all.html</a>.

- 12. Likewise, while no CL pondweed occurred at the reservoirs in 2011, staff needs further surveys before confirming that CL pondweed has been eliminated from the project reservoirs. CL pondweed reproduces through the production of dormant vegetative propagules called turions. Each plant produces hundreds of turions in the spring just before the plant begins to die. Turions remain dormant in the sediment through the summer until the water cools in the fall when turions germinate. Turions can remain viable in the sediment for a number of years.<sup>6</sup>
- 13. Based upon the review of the above information, the September 13, 2006 Order should be amended to lengthen the invasive plant monitoring frequency from annually to every three years. Monitoring every five years as recommended by the licensee is not recommended at this time for the reasons stated above. Previous cases exist where the Commission stated that conducting surveys every five years may not be frequent enough for monitoring invasive species.<sup>7</sup>
- 14. Staff concurs with the Wisconsin DNR that the CL pondweed surveys should occur in June using the rake methods, followed by complete surveys for loosestrife and Eurasian milfoil in late July or early August. The licensee should file tri-annual monitoring reports containing data for all three species with the FWS and Wisconsin DNR by October 31, beginning in 2015. The monitoring reports should include any control methods used for the management of these invasive species, as necessary to protect native plant and animal species at the project. The licensee should allow for agency comments and subsequently file its monitoring reports with the Commission by December 31 every year that surveys are conducted. The licensee should allow the resource agencies a minimum of 30 days to submit comments and recommendations on the monitoring reports before filing the reports with the Commission. If the licensee does not adopt a recommendation from the resource agencies, the report should include the licensee's reasons, based on site-specific considerations. The Commission should reserve the right to require modifications to the monitoring plan and implementation of control measures, based on the licensee's monitoring reports and new information, as it becomes available.

#### The Director orders:

(A) The January 5, 2012 request to amend the Order Modifying and Approving

<sup>&</sup>lt;sup>6</sup> Published online March 19, 2013 at <a href="http://www.in.gov/dnr/files/curleyleaf\_pondweed.pdf">http://www.in.gov/dnr/files/curleyleaf\_pondweed.pdf</a>.

<sup>&</sup>lt;sup>7</sup> See Rhinelander Project, 115 FERC ¶ 62,106 (2006); Grandmother Falls, 114 FERC ¶ 62,044 (2006); and Webber Project, 101 FERC ¶ 61,335 (2002).

Invasive Plan Monitoring Plan Pursuant to Article 408, issued September 13, 2006, is approved, as modified by Ordering paragraph (B) below:

- (B) The licensee shall conduct tri-annual surveys for invasive plants within the project boundary, beginning in the summer of 2015. The surveys for curly leaf pondweed shall occur in June, using the rake methods, followed by complete surveys for purple loosestrife and Eurasian water milfoil in late July or early August. The licensee shall file tri-annual monitoring reports containing data for all three species with the U.S. Fish and Wildlife Service and the Wisconsin Department of Natural Resources by October 31, beginning in 2015. The monitoring reports shall include any control methods used for the management of these invasive species, as necessary, to protect native plant and animal species at the project. The licensee shall allow for agency comments and subsequently file its monitoring reports with the Commission by December 31 every year that surveys are conducted. The licensee shall allow the resource agencies a minimum of 30 days to submit comments and recommendation on the monitoring reports before filing the reports with the Commission. If the licensee does not adopt a recommendation from the resource agencies, the report shall include the licensee's reasons, based on site-specific considerations. The Commission reserves the right to require modifications to the monitoring plan and implementation of control measures, based on the licensee's monitoring reports and new information, as it becomes available.
- (C) This order constitutes final agency action. Any party may file a request for rehearing of this order within 30 days from the date of its issuance, as provided in Section 313(a) of the Federal Power Act, 16 U.S.C § 825*l* (2006), and the Commission's regulations at 18 C.F.R § 385.713(2012). The filing of a request for rehearing does not operate as a stay of the effective date of this order, or of any other date specified in this order. The licensee's failure to file a request for rehearing shall constitute acceptance of this order.

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Document Content(s)	
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