

3 Reclamation Activities

As required by the Mine Permit Section 3, reports on progress of reclamation activities are prepared throughout the year. An annual report is required by Condition 3-26(d). The 2006 Annual Reclamation Report dated November 14, 2006 was submitted to the Department and is incorporated by reference. Other reclamation updates submitted on January 31 and November 9, 2006 are incorporated by reference.

Reclamation activities reported in the November 2006 Annual Reclamation Report included a summary of onsite vegetation activities such as reports on monitoring of vegetation, birds and butterflies. Also reported are management activities during 2006 that included herbicide treatment of invasive species, irrigation of woodlands, mowing firebreaks and grass trails, and completion of the seventh year of the 10-year prescribed burn period.

Flambeau submitted its Notice of Completion (NOC) to the Department during September 2001. In March 2002, the Department concurred with Flambeau's NOC. The four-year monitoring period to Certificate of Completion began on November 19, 2001. The submittal of the 2005 Annual Reclamation Report completed the fourth year of the four-year monitoring period required prior to the Certificate of Completion. Flambeau completed an additional year to further document the sustainable site conditions even during extreme conditions such as the regional drought during 2005 and 2006.

Reclamation monitoring of the site was performed by Applied Ecological Services, Brodhead, WI during Spring and late Summer. Vegetation monitoring was performed in 29 permanent 50-meter transects for a total of 290 quadrants. Bird and butterfly monitoring was performed to document use of the site by wildlife. Following are highlights of the 2006 monitoring program results:

- An average of 99 percent plant cover across reclaimed site excluding wetlands and industrial outlot;
- 24 planted species were found in the grassland community, 32 in the woodlands, and 73 in the wetlands;
- woody species survival within the defined woodlands is at 100 percent;
- 52 bird species identified as using the site or immediate peripheral property; and
- 8 butterfly species recorded as using site.

A Habitat Analysis for the reclaimed mine site was submitted during October 2002. The document, Habitat Analysis (HEP) for Savanna Sparrow, Great Crested Flycatcher and Tree Swallow at the Reclaimed Flambeau Mine site, was prepared by Applied Ecological Services using the Habitat Suitability Index model developed by the U.S. Fish and Wildlife Service. The Habitat Analysis using year 2000 monitoring data found that habitat is currently being provided in the grassland for the Savanna Sparrow. The Great Crested Flycatcher will be

supported in the woodland in about 20-30 years when the woodland develops. Natural habitat in the wetland communities for the Tree Swallow will also be provided in about 20 years as cavernous trees begin to provide natural nesting opportunities. The Tree Swallow is currently on site and using “bluebird” boxes for nesting. The Habitat Analysis was updated with years 2001 and 2002 monitoring data and findings were consistent with the initial analysis. The fourth and final Habitat Analysis updated with the 2003 monitoring data was submitted on November 12, 2004. The findings of the final Habitat Analysis were consistent with the previous years’ Analyses.

The wetlands are highly diverse with 205 native plant species found in 2006. Seventy-three native plant species found in the wetlands were planted by Flambeau prior to the NOC. With such a diverse system, competition and environmental factors such as annual water level fluctuations can impact the occurrence of some species from year to year. The total number of native plant species found in the wetlands was 144 in 2002, 153 in 2003, 203 in 2004 and 217 in 2005. Flambeau is required to establish a minimum of 12 native planted species in the wetlands and has far exceeded this requirement.

The results of monitoring on the reclaimed Flambeau Mine site show that the site continues to track with the desired trajectory for plant community development, diversity, cover, plant frequency, productivity, and wildlife use. The reclaimed mine site continues to provide quality wildlife habitat and exhibit sound erosion control enhanced by established vegetation dominated by native species. Of the 347 plant species found on site, 79 percent are native. Monitoring in 2006 documents that Flambeau has met all the required performance standards for Certificate of Completion. On January 9, 2007 Flambeau petitioned the Department for the Certificate of Completion.

Table 3-1 summarizes the performance standards and the results of monitoring, 2000-2006.

Table 3-1. Performance Standards and Reclaimed Flambeau Mine Site Status (2000 - 2005).

Total Cover (%)								
Ecological Community	Performance Standard	2000	2001	2002	2003	2004	2005	2006
Grassland	70	96	95	96	90	95	98	99
Woodland	70	98	98	98	98	99	98	100
Wetland	70	100	100	100	92	95	83	98
Planted Native Species Found (#)								
Ecological Community	Performance Standard	2000	2001	2002	2003	2004	2005	2006
<u>Grassland Planted Species</u>								
Target		15	16	16	15	16	15	16
Enhancement		6	4	6	10	5	5	8
Total	15	21	20	22	25	21	20	24
<u>Woodland Planted Species</u>								
Target		25	24	23	22	22	24	23
Enhancement		10	11	8	7	9	9	9
Total	15	35	35	31	29	31	33	32
<u>Wetland Planted Species</u>								
Target		32	32	30	34	34	37	32
Enhancement		35	32	37	33	41	40	41
Total	12	67	64	67	67	75	77	73
Diversity² (%)								
Ecological Community	Performance Standard	2000	2001	2002	2003	2004	2005	2006
Grassland	80	88	94	94	88	94	88	94
Woodland	80	100	96	92	88	88	95	92
Wetland	80	82	82	77	87	87	96	82
Tree Species Survival (%)								

Ecological Community	Performance Standard	2000	2001	2002	2003	2004	2005	2006
Grassland	NA	NA ⁴	NA	NA	NA	NA	NA	NA
Woodland	80	100	100	100	100	100	100	100
Wetland	NA	NA	NA	NA	NA	NA	NA	NA

¹NA = Not Applicable

²As compared to Target Planted Species.