

**Phragmites Control in Grand Traverse Bay
2011 Final Report**

**Wildlife and Wetlands Solutions
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Traverse City, MI 49685**

Herbicide treatment for phragmites was completed in Peninsula, East Bay, and Acme townships and the City of Traverse City based on survey information provided. All herbicide was applied by foliar application using a backpack sprayer over 10 days, between Sept 6 and Oct 2, 2011. Acreage information by area and total acres, weather conditions and the dates treated in each area, and the hours billed to each project area are included below.

One phragmites patch was retreated in October in Acme Township on the MDOT right-of-way. This patch was not treated in 2010 due to confusion on property ownership. That issue was resolved for 2011 and treatment was conducted on Sept 6, 2011. The density of this patch resulted in a low success rate from the initial treatment and retreatment was done to increase the success of die-off for this area.

Treatment dates and weather conditions

Acme/East Bay

Sept 6, sunny, 60 degrees, 10-15 mph winds

Oct 21, sunny, 50 degrees, 5-10mph wind

City of Traverse City

Sept 20, sunny, 50 degrees, 0-5 mph wind

Oct 2, mostly sunny, 50 degrees, 0-5 mph wind

Peninsula

Sept 15, partly sunny, 50 degrees, 10-15 mph wind

Sept 16, sunny, 50 degrees, 5-10 mph wind

Sept 17, sunny, 55 degrees, 0-5 mph wind

Sept 25, sunny, 65 degrees, 0-5 mph wind

Sept 27, cloudy then clearing, up to 70 degrees, 5-10 mph wind

Sept 28, cloudy, 50 degrees, 10-15 mph wind, light rain after treatment

Oct 2, mostly sunny, 50 degrees, 0-5 mph wind

Acreage

Acme/East Bay	3.00
City of Traverse City	0.06
Peninsula	<u>13.24</u>
Total	16.30

Hours reported for phragmites treatment in Grand Traverse County.

	Job Description	Acme/East Bay	City of TC	Peninsula	Data Entry and Reporting
Vickie Smith	Herbicide app	6	2.5	37	23
John Schafer	Herbicide app	8	0	34	0
Ernie Kafcas	Herbicide app	8	0	41	0
Jennifer Booth	Herbicide app	8	2.5	42	0
Joe MacDonald	GPS tracking/ Herbicide app	0	0	41	0
Kathy Schafer	GPS tracking	8	0	26.5	0
Jennifer Jamieson	GPS tracking	8	2.5	34.5	0
Ed McPherson	GPS tracking	8	0	0	0
Total		54	7.5	255	23

Treatment acreage was 16.3 acres compared to approximately 75 acres in 2010. The reduced acreage is mainly due to successful treatment near the Old Mission Lighthouse in 2010. Approximately 1 to 1.5 acres of phragmites remained near the lighthouse in 2011. Also, lower acreages may be the result of GPS tracking. While all employees are trained with the same guidelines, some viewed larger areas of phragmites, some marked small stands individually. This may have resulted in lower than actual acreage. All data taken is an estimate, but attempts are made to be as accurate as possible. If the acreage is underestimated, it is expected to be no more than 3-5 acres. All data, GPS points, and information gathered are available at any time.

Removal of the dead stems by mowing/burning was helpful for retreatment, especially for the Old Mission Lighthouse area. After the stems die back from 2011 herbicide treatment, it might be helpful to mow/burn again to remove the 1-1.5 acres of phragmites still remaining at the lighthouse.

Herbicide treatment is expected to exceed 85% success required for each treatment area. No problems were encountered in Grand Traverse County during treatment. One patch of native phragmites was found on the island adjacent to the Old Mission Lighthouse "peninsula".

Spreadsheets with herbicide usage and GPS data was sent separately. Shapefiles were also submitted with reference points to the GPS data and patch size in square feet and the density of the patch.

Recommendations

Herbicide treatment for phragmites is an on-going process. Treatment has been widespread for two years, with some areas in a 3rd year of treatment. To ensure long term success, at least 3 years of successful treatment is required to enter into a maintenance period. In a few areas, this may not be necessary, but the majority of areas will need treatment in 2012. A survey conducted by knowledgeable staff should help determine the need for continued treatment. Once phragmites reaches a maintenance stage, every other year treatment might be possible. Also, township/city officials should determine a threshold for treatment in a given year. This might be a group (by county) or individual (township) decision. Keep in mind, skipping one year of treatment will allow significant re-growth by the second year, but it may more cost-effective.

Some areas had phragmites that were not marked during the survey. This is due to the early time frame of surveying related to the treatment time. The smaller phragmites that have not tasseled (because of their size) seem to continue to grow into late September. In most cases, the survey information was not an issue, because the ordinance allowed treatment. In places where permission is gathered, areas may not have been treated, because no permission was given. It is recommend that if phragmites has been present within two years on a given property, obtain permission and allow an applicator to check the property to determine whether small plants are present and then can be treated.