

Appendix D-2

Details from Paul Smith's College Long Term Transect Plan

Objectives of Monitoring:

1. Conduct an independent monitoring of milfoil control effort
2. Measure effectiveness of control (e.g. duration, effects on target and non target plants)
3. Understand the effectiveness of control (e.g. season, proximity to sources, sediment type, initial infestation levels, temperature, prevailing winds etc.)

Approach:

1. Establish factors important in evaluating the success of milfoil control:
 - Season of Control - Proximity to Source Areas
 - Initial Milfoil level - Proximity to Boat Traffic
 - Water Depth - Prevailing Wind Direction
 - Sun Exposure - Sediment type
 - Water Transparency
2. Establish 12 lake locations that encompass all the factors in (1) above:
 - Fish Creek Bay – south side near campgrounds
 - Bottle Bay
 - Little Square Bay
 - East Shore of Back Bay
 - East Side of Square Bay
 - Between Buck Island and Mainland
 - South Shore of Saginaw Bay
 - Pork Bay
 - Northeast Shore of Gull Bay
 - Gilpin Bay
 - Eagle Island
 - Bungalow Bay to Deer Island
3. The line intercept method and fixed plot method will be used on each transect to monitor the presence and abundance of aquatic plants in 1 – 5 meters of water.
4. Transects will be measured every month from May to September, for a total of five measurements starting before and after milfoil removal. The following data will be collected:
 - a. Species presence via line intercept
 - b. Species number and abundance via fixed plots at 1, 3 and 5 meter depths.
 - c. Number of milfoil fragments in each fixed plot
 - d. Particle size distribution and organic matter percent of sediments in each fixed plot (one time measurement)
 - e. Underwater pictures on a subset of photo points
 - f. Water temperature and turbidity with depth over fixed plots.

5. Each transect will be laid out by first locating the near-shore endpoint at 1 meter depth. From this point, the transect will move perpendicular to the shoreline, where practical, to locate the second endpoint at 5 meters depth. The 1 and 5 meter depths should bracket the extent of milfoil and is consistent with work done on Lake George by the Darin Fresh Water Institute.
6. Species presence will be determined for 2 meter intervals along each transect by a SCUBA diver swimming the line and recording species presence and height for each 2 meter segment.
7. Transects will be measured for at least three years.

Additional detail for this plan can be found by contacting:

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