

Stantec Sifton Bog Report 2015

Part II: Vegetation Monitoring and Vascular Flora Inventory

The Sifton Bog ESA Conservation Master plan 2009-2019 was established to guide the management of this ESA until 2019. Conservation, maintenance and, if possible, the enhancement of the ecological health of this important ESA were identified as the principal goals of this master plan. The 2015 Vegetative Monitoring and Vascular Flora Inventory represents the most recent response to this master plan and provides qualitative and quantitative assessments of the present biodiversity represented within the thirteen 10m x 10m monitoring plots in the Sifton Bog. In addition to the compilation of a comprehensive list of vascular flora, the Stantec Report also provided an assessment of the aquatic plant composition of Redmond's Pond, an assessment of cattail species and three-way Sedge within the kettle bog as well as incidental wildlife observations. The important comparisons with past reports provide some historical perspectives with respect to the natural and anthropogenic-induced changes to the Sifton Bog.

In 2015, a total of 17 surveys were conducted: 6 in the spring between May 20 and June 30; 6 in the summer between July 3 and September 1 and 5 in late summer and early autumn (September and September 30). Of the 352 vascular plant species recorded, 76% are native Ontario species and 23% are introduced or exotic species. However, the Stantec report notes that according to the MacLeod report of 1991, the total number of species recorded in 2015 has decreased by 17% to that recorded in 1991. The Stantec report suggests that this discrepancy may, in part, be due to the displacement of native species by invasive species such as Glossy Buckthorn and European Buckthorn. Apparently, Buckthorns were less dominant in the Sifton Bog 25 years ago. In addition, as stated in the Stantec report, Hawthorns were not monitored "because it is a taxonomically challenging genus".

This report indicates that 50 new species were recorded that had not been recorded for the bog previously of which 37 are native, 13 exotic, 4 provincially rare of which 2 are endangered. Most of these new records occurred in the forest and swamp communities.

Thirty two different plant species were observed and identified in this specific area surrounding Redmond's pond. In addition, 4 aquatic plant species including the rare large yellow pond lily, 17 species of Odonata and Snapping Turtle which is listed as Special Concern under the Endangered Species Act. However, the Stantec survey indicates that the population of large yellow pond lily is healthy at Sifton Bog and that no turtle nesting habitat was found near the viewing platform or the boardwalk leading to the platform.

Of great concern is the apparent decline in kettle peatland flora. Twenty-five floral species recorded in the McLeod survey in 1991 were not observed in the 2015 survey. This inconsistency may be a consequence of the differences in time frames for the McLeod survey (3 years) versus the Stantec survey which was conducted over one growth year (May-Sept).

Strength of Stantec Report: This 2015 report provides a detailed, updated survey of the vegetation and vascular flora inventory for the Sifton Bog.

Weakness of the Stantec Report: This 2015 report failed to compare their data to the most recent report on the Sifton Bog submitted to the City of London by Bradwill Ecological Consulting in April 2010 and revised in July 2013. The Bradwill report also identified the problem of invasive Buckthorn in the Sifton Bog. The lack of comparison with the Bradwill Report undermines the historical relevance of the new data presented in the Stantec report of 2015. No reason for the omission of the Bradwill Report is provided. Perhaps they were unaware of the Bradwill Report?

The Stantec survey was conducted over one growth year only.

Recommendations:

1. Continued annual vegetation monitoring and vascular flora inventory.
2. Ensure that consultants have access to all of the most recent reports to ensure a comprehensive, historical perspective of the changes in vegetation and vascular flora.
3. Historical comparisons should be mandatory. The Stantec survey was over one year growth period (May to September) while previous reports provided data from surveys that were conducted over a period of several years. To ensure greater historical consistency between surveys, we recommend that consistent time frames be imposed for all future surveys such that meaningful historical comparisons can be made.