

Final



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Attention: James MacKay
Planning Services
Environmental and Parks Planning
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Dear Mr. MacKay,

Reference: Proposal for Consulting Services – Sifton Bog Three Season Vegetation Inventory, 2015

Stantec Consulting Ltd. ("Stantec") is pleased to provide a work plan and budget to complete a three season vegetation inventory at Sifton Bog, in the City of London.

The Sifton Bog Environmentally Significant Area (ESA) Conservation Master Plan 2009-2019 established goals, objectives and specific recommendations and implementation actions to guide management of the ESA until 2019. One of the most important goals is to conserve and enhance ecological health.

The purpose of this work plan is to accurately inventory the vegetation composition at Sifton Bog and compare 2015 data with previous inventories. The data will provide further insight into the current vegetation status at Sifton Bog, identify species at risk and rare species, identify changing vegetation patterns, and identify what measures may be needed to support vegetation health over the long term.

Work Plan

The following work plan provides an outline of the requirements for the vegetation inventory. The work plan is based on a draft Terms of Reference provided by the City of London (the "City"), and subsequent discussions with City staff in a meeting on April 24, 2015. The intent of the program is to collect, analyses and report findings in a manner that is scientific defensible and easily replicated.

1. Confirm/refine Ecological Land Classification (ELC) mapping of all vegetation polygons throughout the Sifton Bog ESA.



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2. Compile species lists by ELC Community Series over the course of three seasons (spring, summer, and fall). The location of plant species at risk and rare species will be documented with a handheld GPS.
3. Continue monitoring the 13 permanent plots established in 1992. Monitoring will follow previous methods so that results are comparable. Plots consist of a 10m x 10m area in which four 1m x 1m sub-plots are nested and used to conduct the summer inventory.
4. Identify aquatic plant composition with Redman's Pond.
5. Identify the abundance and density of Cattail species (both *Typha angustifolia* and *T. latifolia* are present) and Three-way Sedge (*Dilichium arundinaceum*) within the Bog Community Class.
6. Count individual orchids and other uncommon or rare plants within the established monitoring plots, and systematically establish new plots as needed to monitor rare plants. The location of new plots will be indicated in the field with a permanent marker (post or similar), and documented using a sub-metre GPS unit. We will also note evidence of potential threats to rare plants, such as deer browse.
7. Prepare a summary report that includes a comparison of results to previous inventories, including analysis of the Floristic Quality Index (FQI) for each monitoring plot, and all plots combined. The report will discuss the current status of vegetation and trends, including impacts from recreational use, and invasive species such as Buckthorn (*Rhamnus* sp.).
8. Document all incidental wildlife.
9. Provide updated ELC figures and location of species at risk or other rare plants.

Schedule of Deliverables

Once awarded, Stantec will immediately initiate the field program so that spring ephemerals are represented in the monitoring program, and no seasonal requirements are missed. We anticipate the inventory work will be complete by October 1, 2015. We will then prepare a draft 2015 Monitoring Report (digital copy only), complete with mapping, by December 1, 2015 for City review. The draft will be updated to a Final report (digital and hard copy) and submitted to the City within two weeks of receipt of comments on the draft Report.