



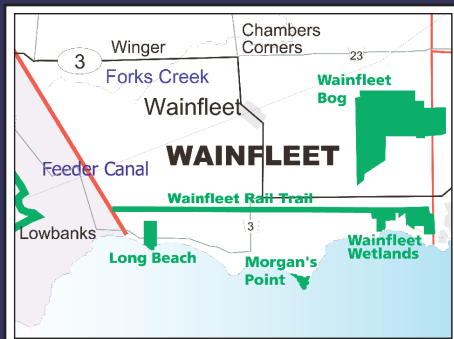
PROJECT DESCRIPTION

This site is a provincially significant wetland known as a bog. The bog wetland contains partially decomposed plant material. Near the centre of the site, sphagnum moss is covered by low shrubs and plants. At the edge is an upland forest bog.

Over time, this open water area filled in, as plants died and more plants grew. Due to the underlying saturated conditions the bog remains an acidic environment with low nutrients. The result is a domed bog with unique plants able to withstand the acidic and low nutrient site conditions.

As part of NPCA's goal to rehabilitate the bog area of the property, this project was conceived to delineate the Bog land use and in particular to analyze the historic peat harvesting activity.

This project involves a temporal analysis of the Wainfleet Bog Conservation Area's historical land use.

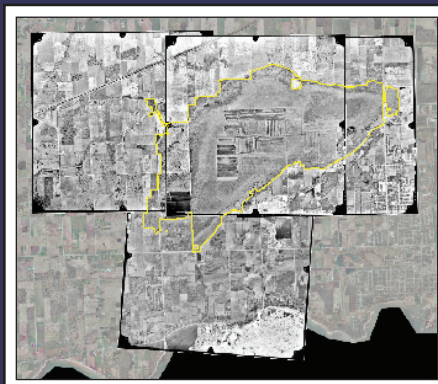


PROJECT PROGRESS

Airphotos and photomaps from the 1930 to 2002 of the Wainfleet Bog were scanned by flight line and roll number. Using the most current 2002 aerial image, and a shapefile delineating bog boundaries of the Wainfleet Bog, rectifications were undertaken using ArcMap 9.1. All years were saved with correlating photos from that year. In ArcMap, polygons were drawn over peat deposits, agriculture and vegetation areas.

In the next stage of the project, a temporal analysis of cut-block and vacuum extracted peat areas will be carried out. A temporal analysis noting differences in percentages of peat, agriculture and vegetation will be documented and illustrated.

Upon completion, the final objective is to submit the shapefile – complete with rectifications, polygons and statistics back to the client.



NIAGARA COLLEGE GIS

Geographic Information Systems (GIS) is a leading-edge technology with thousands of applications, from finding the quickest travel path to determining the impact of urban population growth.

Graduates of this program are attractive candidates to diverse employers - for example:

- Environmental management agencies
- GIS consulting firms
- Information technology industry
- Map design and production companies
- Municipal, provincial and federal governments
- Natural resource conservation authorities
- Oil and mining industry
- Survey and engineering firms
- Tourist industry
- Utility companies

GIS CONSULTANT

Avalanche Media is a small company specializing in website development, electronic newsletters, website hosting, and geographic information system applications.

Ryan Bridgeman, project manager at Avalanche Media, has had over four years of experience as a self-employed website developer, and has implemented a number of similarly-sized projects. These projects have utilized similar multidimensional software systems.