

ALTONA FOREST.
ENVIRONMENTAL MANAGEMENT
PLAN

THE METROPOLITAN TORONTO AND REGION
CONSERVATION AUTHORITY

MARCH 29, 1996

TABLE OF CONTENTS

PAGE

List of Figures, Table and Appendix	
jj	
PREAMBLE	
iii	
1.0 INTRODUCTION	
1	
1.1 J. Murray Speirs Ecological Reserve	
2	
2.0 GOALS AND OBJECTIVES	
5	
3.0 RESOURCE MANAGEMENT POLICIES AND GUIDELINES	
7	
SITE SECUREMENT	
3.1	
8	
Access/Fencing	
3.1.1	
10	
3.1.2 Signage	
12	
3.1.3 Litter	
13	
3.1.4- "Cleaning of the Forest"	
13	
3.1.5 Hazard Tree Removal	
13	
VEGETATION MANAGEMENT	
3.2	
13	
EDGE MANAGEMENT	
3.3	
15	
3.4 WILDLIFE.....	18
.....	
3.5 AQUATIC ECOSYSTEMS	
19	
Drainage	
3.5.1	
19	

3.5.2	Wetlands	20
3.6	ARCHAEOLOGY	20
4.0	PUBLIC USE POLICIES AND GUIDELINES	21
4.1	TRAILS/ACCESS	21
4.2	POTENTIAL PARKING	21
4.3	ENCROACHMENT	22
5.0	COMMUNITY OUTREACH	23
6.0	CONSULTATION	25
7.0	MAINTENANCE OF THE PLAN	25

List of Figures, Table and Appendix

	<u>PAGE</u>
Figure 1: Location of the Altona Forest Property	4
Figure 2: Site Securement.....	9
Table 1: Phasing of Site Securement Implementation.	8
Appendix A: List of References	26

PREAMBLE

The Altona Forest Property consists of a healthy and diverse ecosystem within the urban centre of the Town of Pickering. The mixed deciduous and coniferous forest provides essential habitat for a large number of plants and animals. The Altona Forest Property .> contributes to the bioregion's greenspace network and is an important part of the Rouge-Duffins Wildlife Restoration Corridor.

The Altona Forest Property will provide an area for passive and non-intrusive outdoor activities that are compatible with the natural environment and respect the land's environmental carrying capacity. Public uses such as hiking, bird watching and wildlife photography are permitted. More active uses, particularly vehicular use by the public, are not permitted. Public uses beyond the existing passive activities will be subject to *The Strategy For Public Use Of Conservation Authority Lands (Public Use Strategy)* and to the management goals, objectives, policies and guidelines as set out in this Plan. In case of conflict between the stated goals and purposes of the *Public Use Strategy* and the stated goals and purposes of this Plan, the terms of this Plan shall prevail.

A key feature of the Property will be the establishment of the J. Murray Speirs Ecological Reserve - a twelve hectare area within the Altona Forest Property dedicated to the protection and observation of birds, plants and other wildlife. Academic and lay field studies of wildlife, forest functions and natural processes will be permitted. The establishment of the Ecological Reserve is discussed in more detail in the following sections.

The Metropolitan Toronto and Region Conservation Authority ("the Authority") in cooperation with the many community interests will direct management activities within the Property in accordance with the Altona Forest Environmental Management Plan ("the Plan").

The Plan has two fundamental purposes. The first is to direct actions in the short term for securing the site and establishing the J. Murray Speirs Ecological Reserve. Key short term tasks include:

- Fencing the perimeter of the Property,
- (a)
- (b) Providing limited points for pedestrian access where ecologically feasible,
- (c) Posting appropriate signage,
- (d) Hazard tree removal where appropriate, *
- (e) Removal of debris and refuse,
- (f) Establishing the twelve hectare J. Murray Speirs Ecological Reserve with

metre grid reference points, within the larger Altona Forest Property,

The second purpose is to direct the long term management activities to protect and maintain the ecological integrity of the Altona Forest Property. For example, the creation of a Community Advisory Council is recommended. This proposed Council would act as the stewards of the Altona Forest Property. It would also provide a forum for public input and help the Authority in determining the specific needs and actions to manage the Altona Forest Property including the J. Murray Speirs Ecological Reserve.

In summary, the key long term tasks of the Authority include:

- (g) Managing vegetation to protect, maintain, restore and enhance habitat, (h) Review the requirements for the preparation of Operating plans and Edge management plans, (i) Further property acquisition, (j) Establishing a Community Advisory Council, (k) Monitoring and managing for environmentally sustainable levels of public use within the Altona Forest Property in keeping with the goals and objectives of this Plan,
- (l) Encouraging environmental monitoring programs and scientific and lay studies in the J. Murray Ecological Reserve, (m) Encouraging and educating users of the Altona Forest Property.

Detailed operating plans will be prepared, based on site inspections by staff and community input, to direct the specific implementation activities as they are required.

ALTONA FOREST

ENVIRONMENTAL MANAGEMENT PLAN

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1.0 INTRODUCTION

The Metropolitan Toronto and Region Conservation Authority owns approximately 45 hectares of environmentally significant land known as the Altona Forest Property. It is located on Parts of Lots 31 and 32, Concession 1, Town of Pickering (Figure 1). The property is south of Finch Avenue East between Rosebank Road and Altona Road and north of Sheppard Avenue. The final size of the Altona Forest Property is expected to be approximately 53 hectares. This anticipates the inclusion of a portion of the Speirs and DiNardo properties. The Authority is also in the process of acquiring an adjacent thirteen hectares of valleyland which will extend southerly from the Altona Forest Property.

About 20,000 years ago the last great Canadian ice sheet invaded Southern Ontario. As the ice sheet retreated, a drumlinized till plain from the Oak Ridges Moraine south to what is now the Lake Ontario shoreline was formed. The smooth drumlin hills formed islands in ancient Lake Iroquois. Approximately 12,000 years ago, the waters of glacial Lake Iroquois cut a prominent fossil bluff just north of the Altona Forest Property, a remnant shoreline of this ancient glacial lake.

The meltwater from the receding glaciers sorted and stratified the soils into layers. These soils are underlain by more dense till layers at an average depth of 0.6 metre. Impermeable lower layers tend to retard deep percolation of water. As a result, the water saturates the upper soil horizons and accumulates in depressions. The topography varies from uniformly level to gently undulating, except where man made drainage channels have been dug through the overburden.

From a regional perspective the Lake Iroquois shoreline forms a one to two kilometre wide band of forest cover from the Rouge River in the west to Whitby in the east. The Altona Forest Property is a critical component in the Rouge-Duffins Wildlife Restoration Corridor which is the inter-regional corridor between the Rouge, Petticoat and Duffins watersheds (Figure 1). In turn, these watersheds provide linkages to a larger network for wildlife movement to the Oak Ridges Moraine, Lake Simcoe and Lake Ontario. The Altona Forest Property and the larger Rouge-Duffins Wildlife Restoration Corridor provide vital habitat, contribute to wildlife movement and enhance the health and biodiversity of plants and animals.

The Altona Forest Property is also situated in a transitional zone between the southern

(Carolinian) Deciduous Forest Region, and the mixed deciduous and coniferous cover of the Great Lakes - St. Lawrence Forest Region. The overlap of the two forest regions in conjunction with the wide range of moisture conditions and differing soil types are some of the important factors in creating the rich biodiversity of the Altona Forest Property. The Property consists of mature forest with old growth characteristics and numerous early to mid successional vegetation communities, such as old fields and wet meadows.

The Altona Forest Property provides interior forest habitat. However, this habitat has been significantly reduced as a result of development on the east side of the Property. Such large mature forest habitats, that are close to Lake Ontario, are significant within the Greater Toronto Area (GTA). Less than half of one percent of the wooded habitat remaining in the GTA provides mature interior forest habitat that has a core area at least 300 metres from the forest edge. The Altona Forest Property is one of the few large areas remaining, adjacent to Lake Ontario, where migrating birds have the protection of forest cover for resting and feeding during migration.

Ground water and surface run-off from the Oak Ridges Moraine and the Iroquois Bluff feeds and regulates the drainage of wetlands and tributary streams within the Altona Forest Property, which in turn regulates the flow of Petticoat Creek to Lake Ontario.

The main branch of the Petticoat Creek, located within a well-defined wooded valley and, traverses the western edge and southwest corner of the Altona Forest Property. A significant portion of the Altona Forest Property and adjacent area drains to an intermittent watercourse called the Rosebank Tributary located within the central portion of the Property.

The Altona Forest Property was designated by the Authority as an Environmentally Significant Area in 1982. The Altona Forest Area Environmental Management Study, Phase One Report (December, 1990) commissioned by the Town of Pickering has also confirmed the significance of this area. Significant species have been documented in the Altona Forest Property, including orchids, hawks, deer and owls. The diverse plant communities include over 300 species creating many diverse habitats, for birds, mammals, amphibians, and reptiles.

The area surrounding the Altona Forest Property is in various stages of development for residential and institutional purposes. Consequently, the Altona Forest Property will require special attention, as described in this Plan, to protect the area from encroaching development particularly within the J. Murray Speirs Ecological Reserve.

J. Murray Speirs Ecological Reserve

1.1

Dr. Speirs, who along with his late wife Doris Huestis Speirs, have used their property and the adjoining forest as a centre for investigative studies since 1948.

On his own initiative, Dr. J. Murray Speirs, one of Ontario's foremost field ornithologists, proposed that he donate approximately 2.8 hectares of his land to the Authority to be included as part of a larger Ecological Reserve within the Altona Forest Property. The J. Murray Speirs Ecological Reserve would form a vital component of the Altona Forest ecosystem.

It is understood that such an Ecological Reserve would be 1.2 hectares in size. It would incorporate the land to be donated by Dr. Speirs's and the DiNardo land into the Altona Forest Property, including a small pond located on the existing Speirs and DiNardo property line. These new acquisitions would be included as part of the Altona Forest Environmental Management Plan. Dr. Speirs's contributions and vision of the properties as an Ecological Reserve has been recognized by naming the Ecological Reserve in his honour.

It is understood that a thirty metre grid will be necessary to undertake investigative studies on bird communities and forest understorey within the 1.2 hectare Ecological Reserve. The Authority will establish the thirty metre grid for research purposes. The Authority will cooperate with adjacent landowners, the community and other agencies including natural heritage groups to maintain the grid system for the studies.

As of March 1996, the Ecological Reserve consists of Parts 2 to 11 inclusive on Plan 40R-1 6568.