

2.0 GOALS AND OBJECTIVES

The goals of the Altona Forest Environmental Management Plan are:

To protect and maintain the Altona Forest Property as an integral part of the

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larger ecosystem, so that it contributes to the ecological functions of the Petticoat Creek watershed and the Rouge-Duffins Wildlife Restoration Corridor.

To protect and maintain the natural ecosystem of the Altona Forest Property

II.

by ensuring the health and diversity of its native species, habitats, ecological processes, and where appropriate restore such areas to an enhanced natural environmental condition. The environmental health of the natural ecosystem shall be paramount.

To establish and protect the J. Murray Speirs Ecological Reserve as a natural

III.

ecosystem for passive scientific and lay field studies (Figure 1).

To conserve the archaeological features and when appropriate allow

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investigative research and interpretation of these features. Preservation of archaeological resources in their present undisturbed condition is preferred.

To promote opportunities for public education about natural heritage and

V.

appropriate public use in the Altona Forest Property that respect the use of the ecosystem.

Considering the significant features and functions of the Altona Forest Property all management activities will be directed by the following objectives:

To protect and maintain the terrestrial and aquatic habitats, significant

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species, natural ecological features, functions (ie. wildlife migration linkages and forest interior habitat), natural ecological processes, and cultural features from deleterious human activities, eg. motorized recreation vehicles.

To manage the property with a philosophy of non-interference towards the

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natural dynamic activities of the ecosystem.

The intent is to allow natural processes to sustain and enhance the forest's health and not manage the Altona Forest Property as a manicured urban park. Interference with the natural processes occurring on the Altona Forest Property will be prohibited except when clear justification based on careful deliberation and appropriate studies demonstrate that such interference is necessary to meet the goals and objectives of the Plan.

** More active measures may be required, where negative factors impact on the Altona Forest Property, such as non-native and invasive species, as well

as encroaching land uses.

Within the 12 hectare J. Murray Speirs Ecological Reserve, the paramount

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objective shall be to protect the forest as a natural ecosystem. The J. Murray Speirs Ecological Reserve shall remain in a natural state, while permitting passiv?* field studies of wildlife, vegetation and bird communities.

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To encourage the building of partnerships between federal and provincial

agencies, municipalities, local groups, interest groups and the community.

These groups will assist the Authority to promote and implement the Plan for the Altona Forest Property.

To create a Community Advisory Council that will:

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- i) assist in and make recommendations regarding the management and monitoring of the Altona Forest Property,
- ii) identify and enhance the positive relationships between the Altona Forest Property and its neighbours through the development of public awareness and stewardship programs,
- iii) assist in the review of environmental evaluations and other relevant information and make recommendations consistent with the goals and objectives of this Plan regarding appropriate public access to the Altona Forest Property for educational, interpretive, recreational and other uses.

To provide controlled educational and research opportunities related to the

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Altona Forest Property.

These activities may be possible in the future, provided they do not conflict with any other objective, are passive in nature, and do not have any negative cumulative environmental impacts.

To promote limited and passive recreational uses such as bird watching and

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informal walking trails, on the condition that these activities do not have a cumulative negative environmental impact that degrade the Altona Forest Property.

Mountain biking, equestrian riding, camping, camp fires, active alteration of the ecological features of the property for scientific research or other such activities will not be permitted in the Altona Forest Property.

This objective will require the support of the community and compliance of the public to succeed. It is recognized that trails could degrade natural features and the location of alternative trail alignments will need to be identified and utilized from time to time to mitigate damage from over use.

3.0 RESOURCE MANAGEMENT POLICIES AND GUIDELINES

SUMMARY OF MANAGEMENT ISSUES

All management activities will be designed and implemented in compliance with Federal and Provincial legislation such as the *Migratory Birds Convention Act, Fisheries Act, Conservation Authority Act, Planning Act, Lakes and Rivers Improvement Act* and *Ontario Water Resources Act*.

Limited and restricted public use will be permitted in keeping with the goals and objectives of this Plan. However, the first priority is to secure, protect and maintain the natural ecosystem for which the Altona Forest Property was acquired. The Authority will work with the Community Advisory Council to determine the Altona Forest Property's carrying capacity for public uses such as the location for trails and access points.

Public uses, such as trails will be subject to the Authority's Public Use Strategy and when appropriate, an environmental evaluation as described in section 3.1.1.

Due to the present limitations of budget and other resources of the Authority, opportunities for the Community Advisory Council to help implement activities that are consistent with the goals, objectives, policies and guidelines of this Plan will be strongly encouraged.

Edge Management plans will be requested by the Authority for new developments adjacent to the Altona Forest Property. When applicable, an edge management plan will be subject to an environmental evaluation as described in section 3.1.1. With reference to fencing, it is not the intent of the Authority to place chain link fencing around the whole Altona Forest Property if there is no obvious need or the environmental impact would be too great to do so. Removal of hazard trees is intended to target only those few trees along the Altona Forest Property boundary and active public use areas that may pose a threat to personal safety and private property.

- ** - Where more intensive work is contemplated, a detailed operational management plan ("operating plan") will be prepared for the proposed activities. The preparation of operating plans will be subject to an environmental evaluation as described in section 3.1.1 and include other specific information such as a budget, a detailed description of work, schedule and staffing. The operating plan will be consistent with the goals and objectives of the Plan and the approved Authority operations standards.

To assist in achieving the goals and objectives stated in section 2.0, the following management policies and guidelines will be implemented.

3.1 SITE SECUREMENT

Access to and uses within the Altona Forest Property are currently very informal and uncontrolled. As new development occurs, the number of people wishing to enter the Altona Forest Property is expected to increase. Considering the significance and sensitivity of the forest habitats and wildlife populations, it is necessary to control and if required restrict public access to minimize cumulative impacts through human disturbances. Securement of the Altona Forest Property will be a key issue for the future protection of the Property, as the remaining property acquisitions within the Altona Forest project boundary are concluded.

Phasing of site securement and other management activities, including the installation of the recommended fences are listed below for existing Authority owned property (Table 1, Figure 2). ,

TABLE 1: PHASING OF SITE SECUREMENT IMPLEMENTATION

Activity	Completed Activity	Future Activity	IMPLEMENTED BY
Survey	- survey the eastern boundary		- Bramalea Limited
	- survey other boundaries	- survey other boundaries	- F&O, ESS
	- establish Grid Pattern and trail in the Ecological Reserve	- map trails and survey new property boundaries	- F&O, ESS, PS, CAC
Fence	- East Boundary part of section G	- part of section G	- Bramalea Limited - developer
	- Fence B and gate, C		- Contractor
	- Fence F & clear area	Fence A D E	- ESS, F&O
		Fence H	- developer
Hazard Tree Removal	- eastern boundary		- Bramalea Limited
	- other boundaries	- existing footpaths will be cleared of hazardous trees	- F&O, ESS
_Signage	- at regular points of access		-F&O
		- existing footpaths and the Ecological Reserve	- F&O, CAC
Garbage Removal	- at boundaries and within the Altona Forest Property	- as required	- F&O, ESS - CAC
Management of Informal Trails		- close inappropriate trails and maintain other trails	-F&O, ESS -CAC
Facilities and Operations = F&O, MTRCA Property Section = PS, MTRCA			

3.1.1 Access/Fencing

Potential pedestrian access points have been identified, including one from the north (i), two from the east (ii,iii), one from the south (iv) and two on the western boundary (v,vi), (Figure 2). The number and specific location of access points will be determined following an environmental evaluation of all options. The access locations will not negatively impact the natural features or ecological functions of the Altona Forest Property including the J. Murray Speirs Ecological Reserve.

The environmental evaluation should include the following components:

- a) a reasonable description of the existing natural environment that will be affected either directly or indirectly;
- b) the environmental effects that might reasonably be expected to occur;
- c) methods and measures for mitigating potential environmental effects due to the proposed work; and
a monitoring program to determine the effects on the
- d) environment.

Edge management plans as described in section 3.3 will be subject to the above process if investigating the location of potential access points.

With respect to access and fencing, the Authority will manage the Altona Forest Property subject to the following management policies and guidelines.

Chain link fences will be installed at selected locations around the

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perimeter of the Altona Forest Property, and shall be constructed and maintained in good repair to identify property boundaries and control unauthorized access (Figure 2). Installation including any clearing necessary for fence construction should take place to minimize the impact on the Altona Forest Property, and obstruction in the floodplain. The fence will be 1.83 metres tall (6 feet) and made of black vinyl coated chain link fabric as described by the Authority standard.

Having stated this, it is not the intent of the Authority TO place chain link fencing around the whole property. In certain instances where the environmental impact of installing a chain link fence would be unacceptable or encroachment is not an issue, the Authority may consider alternative types of fencing to demarcate the property boundary. In some instances a fence may not be required. Areas where urban development will abut the Altona Forest Property directly would usually require chain link fencing to be used.

During construction of a fence, removal of hazard trees may occur. This activity is intended to affect those few trees along the property boundary that may pose a threat to personal safety and private property.

Chain link fencing along the eastern boundary of the Altona Forest

- Property should be installed prior to initiating grading or construction of the residential development. Any other areas requiring chain link fencing should also be done before development occurs adjacent to the Altona Forest Property.

If the DiNardo property is purchased, the southern limit of the

- DiNardo property may require chain link fencing as described by the Authority standard. Consideration will be needed to assess north south wildlife movement before building this fence. An alternative type of fence may be considered.

Fencing along the western limit of the Altona Forest Property may

- require an alternative to chain link fencing to meet the concerns of obstructions in a floodplain. Fencing should not impede water flows or create barriers which limit continuous wildlife corridors and

linkages up and downstream. The compatibility of fencing in the flood plain will be determined by Authority staff.

If the Speirs property is acquired, and if fencing at the east side of

- the Speirs's property is requested, private pedestrian access will be provided for only the Speirs' Family. This entrance will provide access into the portion of the Altona Forest Property called the J. Murray Speirs Ecological Reserve (Figure 2).

Farm fence is recommended for installation along the boundary of the

- Altona Forest Property and the Ontario Hydro corridor.

Farm fence is also recommended -for the valley feature and Strouds Lane (Figure 2). In the future, a potential maintenance vehicle entrance may be

- considered along the eastern edge of the Altona Forest Property at the access point (ii) (Figure 2). A 3 metre wide chain link gate should be installed on the property line to allow for vehicular access so that Authority vehicles may undertake site management activities. This access point would provide limited access for emergency public services. Provisions for a 50 centimetre wide pedestrian walk through gate should be considered. Other access points shall have similar restrictive structures to prohibit unauthorized vehicular access. Double gates measuring 8 metres (24 feet) wide will be installed at

- access point (v) along the fence line on the western boundary of the Altona Forest Property (Figure 2). This access point will be used by Authority staff to enter the property in order to undertake any necessary management activities. This access point will provide limited access for emergency public services. Existing internal footpaths, although unauthorized at this time, will

- serve as an informal trail system. Public trails will be routed to avoid the J. Murray Speirs Ecological Reserve. In general, no upgrading other than minor tread maintenance, hazard tree removal and minor signage will be undertaken. New trails will not be established within the J. Murray Speirs Ecological Reserve, however temporary realignment of trails will be permitted to allow the recovery of degraded, overused trail surfaces. It is recognized such activities will require the assistance of the Community Advisory Council and the cooperation of the public using these informal trails.

3.1.2 Signage

- An Authority sign will be installed at ordinary points of access and at regular intervals around the perimeter of the Altona Forest Property in accordance with the Trespass to Property Act, Sections 5(1 Mb), and 7(1)(3) and (4). Signs will be used to identify permitted uses. The signs will also indicate that the public should contact the Authority to learn about permitted activities in the Altona Forest Property. Signs will be placed on plywood backs and then mounted to the chain link fence, farm fence posts or put on other posts that have been driven

into the ground. The size of the sign must be large enough to contain a red circle that is ten centimetres in diameter.

Specific signage for the Ecological Reserve will be installed to indicate the area is a wildlife sanctuary.

3.1.3 Litter

The Authority will deal with garbage that has been discarded on the site. Depending on the nature of the material, it may be removed or dispersed. Such activity will not be scheduled during times when the site is sensitive to damage or disturbance.

3.1.4 "Cleaning of the Forest"

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- Actions such as raking, mowing, piling brush, spraying and brushing within the Altona Forest Property for the purpose of making the site appear "neat and clean" are not compatible with this Plan.

3.1.5 Hazard Tree Removal

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- Authority staff will inspect the forest perimeter, informal footpaths and access points for hazardous conditions.
- Only trees that pose a threat to public safety or private property will be felled and/or removed.

Hazardous trees will be dealt with as described in the vegetation management policies and guidelines.

3.2 VEGETATION MANAGEMENT.

-To date, the broad ecological communities have been inventoried and documented. In general, the forest stands and associated vegetation communities are in fair health and require minimal management at this time. Consequently, initial vegetation management will concentrate on activities that secure and provide a reasonable level of care to protect the resources. Emphasis will be given to

ensuring that the plant and animal communities are protected in their natural undisturbed condition. Within the J. Murray Ecological Reserve, protection of the forest habitat will be paramount, so that long term lay and academic studies of the birds, other wildlife and the habitat can continue. The following policies and guidelines will be followed:

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- Emphasis will be placed on allowing the vegetation of the property to evolve naturally over time, eg. natural succession. Special effort, as described in this Plan, will be needed to maintain the J. Murray Speirs Ecological Reserve in its natural undisturbed state.

Vegetation and sensitive habitat areas should be protected from degradation due to the negative impacts of human activities.

In consultation with the Community Advisory Council, the Authority will choose from only native terrestrial and aquatic species, suited to the local site conditions and complementary to the existing vegetation cover for regeneration activity.

Whenever possible, and where public safety is not a concern, all standing

- dead or damaged trees and forest debris will be left as found.

Where it is necessary to fell trees for public safety reasons, one of two

- options will be followed:

(1)

tree stumps will be cut as close to the ground as possible and left on site without grubbing, or

(2)

trees will be cut well above the ground to leave standing as much of the trunk as possible to create further additional wildlife habitat.

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- In the case where trees have to be cut, tree marking will be carried out by trained staff who are familiar with the objectives of this Plan, forest management practices and hazardous tree evaluation.

The felling of live trees may be permitted to satisfy objectives for protecting,

- enhancing or restoring the natural state on the site. All trees felled will be left on site to form opportunities for wildlife habitat. Generally, tree felling will not be permitted in the J. Murray Speirs Ecological Reserve, except for the preservation of safe public use and concerns about disease.

. The removal of trees strictly for the production of firewood or timber products is contrary to this Plan.

. Pesticides may be used but are the least preferred option should non-native, invasive species require control or elimination. Approval for pesticide use must be given by the Director of Facilities and Operations.

Special effort shall be made to eliminate the use of chemical controls, such as pesticides, herbicides and insecticides within the J. Murray Speirs Ecological Reserve.

Insect infestation or disease will be controlled, if deemed necessary by the Authority, by selective pruning or other mechanical methods. Organic pesticide use and other biological controls will be considered as in the case of controlling such problems as gypsy moth defoliation.

. No wood chipping is permitted in the J. Murray Speirs Ecological Reserve. In the remainder of the Altona Forest Property, wood chipping would also be discouraged, except where the wood chips are applied to existing trails, due to negative impacts such as noise and damage from equipment movement. As an alternative, it is preferred that plant material be left on site as wildlife habitat.

Where wood chipping is the only option, proper timing of activities will be a priority to avoid disturbance to the ground, vegetation communities and to wildlife, as well as having regard for legislation that prohibits disturbances to wildlife.

. Vehicles needed to assist in the undertaking of the necessary management activities will be limited to the existing trails within the J. Murray Speirs Ecological Reserve and elsewhere, whenever possible. Where maintenance and emergency vehicle use is deemed absolutely necessary, vehicle selection will attempt to use smaller less intrusive vehicles such as balloon tire vehicles, ie. All Terrain Vehicles (ATV). Again, proper timing of activities will be a priority to avoid disturbances to the ground, vegetation communities and to wildlife.

** 3.3 EDGE MANAGEMENT

As new development occurs adjacent to the Altona Forest Property, an edge management plan shall be prepared by the owner of the development and approved

by the Authority. Detailed guidelines will be given in consultation with the owner at the time of application. The owner will prepare a biophysical inventory that will detail the natural and cultural features of the property to be developed. This information will be used in the preparation of the edge management plan.

Each edge management plan is subject to the environmental evaluation described in section 3.1.1 as well as the following requirements:

Fencing

to establish the property line, to control and restrict access to the

- Altona Forest Property, and avoid encroachment in areas identified by the Authority;
- to protect all possible vegetation within the designated edge management area;
- to be constructed as early as possible in the development process to identify the new property boundary;
- to consider alternative types of fencing such as cedar post and rail in areas where chain link fencing may be harmful to the ecosystem and wildlife migration; and
- to meet Authority fencing standards and/or other requirements as determined by the Authority.

Potential Access Points

• Within the Altona Forest Property, public uses must be carefully planned and managed to be ecologically compatible. The need and location of access points will be determined as a result of defining the alignment of future trails. These trails and access points will not be established in areas that would conflict with the goals and objective of this Plan. Specifically, trail linkages will have to be assessed to discourage the public from traversing the J. Murray Speirs Ecological Reserve.

It is the intent of the Authority to prepare a more detailed strategy for public

uses within the Altona Forest Property in consultation with the Community Advisory Council. Through this process the trails and access points will be finalized.

In the event that development applications and/or approvals precede the

preparation of the Authority's Public Use Strategy for the Property, the proponent/applicant will be required to carry out

surveys, consultations and studies necessary to specifically locate and reserve potential access points that are complimentary to a trail system and do not result in negative impacts to the natural features and ecological functions of the Altona Forest Property including the J. Murray Speirs Ecological Reserve.

Hazard Tree Removal

to provide a reasonable level of protection to property and human life;

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- hazard tree removal is to be completed in two phases. Phase one occurs at the time of fence construction and phase two occurs immediately prior to final registration. This work is to be done in consultation with Authority Staff.

Vegetation Protection/ Regeneration.

to encourage adjacent lot owners to protect and regenerate native

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- vegetation on their private property;
- to permit edge planting on Authority and private property to screen lots, prevent encroachment, and protect the forest interior;
- regenerate vegetation after hazard trees are removed;
- to use native plant material as required for regeneration purposes.

Pre-stressing vegetation

to gradually expose residual vegetation to altered growing conditions

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- to decrease stress on remaining vegetation.

Salvaging plant material

to rescue parts of any significant vegetation identified for elimination in developments

- adjacent to the Altona Forest Property. In cases where severe alteration of the vegetation is to occur adjacent to the Altona Forest Property, the Authority or the Community Advisory Council or other interested groups should be given the opportunity to rescue vegetation from the site for planting elsewhere. Specific agreements will be prepared through discussions with the owner of the adjacent property.

Sediment Control

- to protect topsoil and prevent erosion and sedimentation from negatively impacting Authority owned land or other properties eg. fencing and filter cloth.

Lot Grading and Drainage

- maintain the natural drainage patterns to protect flora and fauna;
- to prevent physical damage such as direct impact, soil compaction, or placement of soil over the root zone of vegetation.
- Setbacks of Structures from the Altona Forest Property setbacks shall be established to prevent private property uses from
- conflicting with the permitted uses of the Altona Forest Property.

. 3.4 WILDLIFE

It is not the intent of this Plan to keep wildlife in the confines of the Altona Forest Property, as some species are only seasonal residents. Wildlife movement may require measures to decrease migration mortality. Other concerns include, domestic pets preying on the wildlife or harassing wildlife, particularly during critical survival periods, such as in the winter or during nesting season. The assistance of the Community Advisory Council could help enhance public awareness of the effect of the adjacent community. With respect to the wildlife, the Authority will manage the Altona Forest Property subject to the following management policies and guidelines.

Encourage and assist with the healthy perpetuation and diversity of native

- species. Wildlife populations will be protected from human disturbance through controlled and restrictive access, and proper timing of management activities.
Protect, maintain and enhance habitat to provide shelter, travel corridors and
- foraging areas for wildlife.
Maintain unobstructed wildlife migration corridors. Wildlife movement may
- need to be discouraged in areas where there is a high incidence of mortality

during migration. If required, the Authority will recommend to the municipality that road signs be posted to warn motorists of wildlife crossing the road. For arterial road construction and widenings, the Authority recommends that such structures provide for unobstructed wildlife and pedestrian movement within the valley and stream corridors wherever possible.

3.5 AQUATIC ECOSYSTEMS

A portion of the Petticoat Creek and its tributary exist within the central portion and along the western edge of the Altona Forest Property. Petticoat Creek is classified by the Ministry of Natural Resources as a warm water fishery. With respect to the aquatic ecosystem, the Authority will manage the Altona Forest Property subject to the following management policies and guidelines.

Protect and maintain fish habitat, surface and ground water quality and quantity.

- Prohibit stormwater management ponds within the Altona Forest Property.
- Protect, enhance, or restore stream courses, aquatic habitat, riparian zones and
- wetlands, as determined through inventory and monitoring.
- Protect fish populations and other desired aquatic organisms through proper timing of management activities.

Native fish species are the preferred choice over non-native species if introducing

- species.

New studies may be required to better understand and protect the Petticoat Creek watershed in terms of the ground and surface water characteristics of the area. This should be done within the context of a watershed plan for the Petticoat Creek.

3.5.1 DRAINAGE

Except for Petticoat Creek, most of the water movement occurs through groundwater infiltration and percolation in the upper soil layers. Much of the character of the Altona Forest Property is related to the fact that water frequently ponds on the surface, providing temporary habitat opportunities. With respect to the drainage, the Authority will manage the Altona Forest Property subject to the following management policies and guidelines.

Maintain on-site natural drainage patterns in order to protect integrity of the forest communities and wildlife species dependent on the existing drainage patterns.

Review adjacent development proposals to ensure drainage

patterns are maintained that do not damage the ecosystem of the Altona Forest Property in terms of changes to the water quality or quantity.

3.5.2 WETLANDS

There are wetlands on the Altona Forest Property. With respect to the wetlands, the Authority will manage the Altona Forest Property subject to the following management policies and guidelines.

Identify the presence of wetlands, and map and inventory species

- present,
Prohibit activities that will reduce the size or function of the wetland areas. Where
- inventory and monitoring indicate, undertake specific enhancement or regeneration activities,
Protect, establish, or otherwise manage aquatic vegetation to facilitate all the life stages
- of fish, other aquatic organisms, and wildlife populations.

Should additional properties be acquired by the Authority, any wetlands, including ponds, would be mapped and managed in accordance with the above goals, objectives, policies and guidelines.

3.6 ARCHAEOLOGY

With respect to the archaeological resources, the Authority will manage the Altona Forest Property subject to the following management policies.

- All archaeological sites (known or unknown) are important cultural resources which must be preserved, either by avoidance or through excavation subject to Authority procedure, when land use modification may occur. Such excavation would be preceded by notification of appropriate aboriginal groups and agencies. In general, the Authority will preserve all archaeological sites in the Altona Forest Property. It is a management policy of this Plan to recognize that the protection of the natural ecological conditions takes precedence within the Altona Forest Property including the J. Murray Speirs Ecological Reserve.