PHASE II REPORT OCTOBER 2009

Cootes to Escarpment Park System
Conservation and Land Management Strategy
Protecting Ontario's Greenbelt

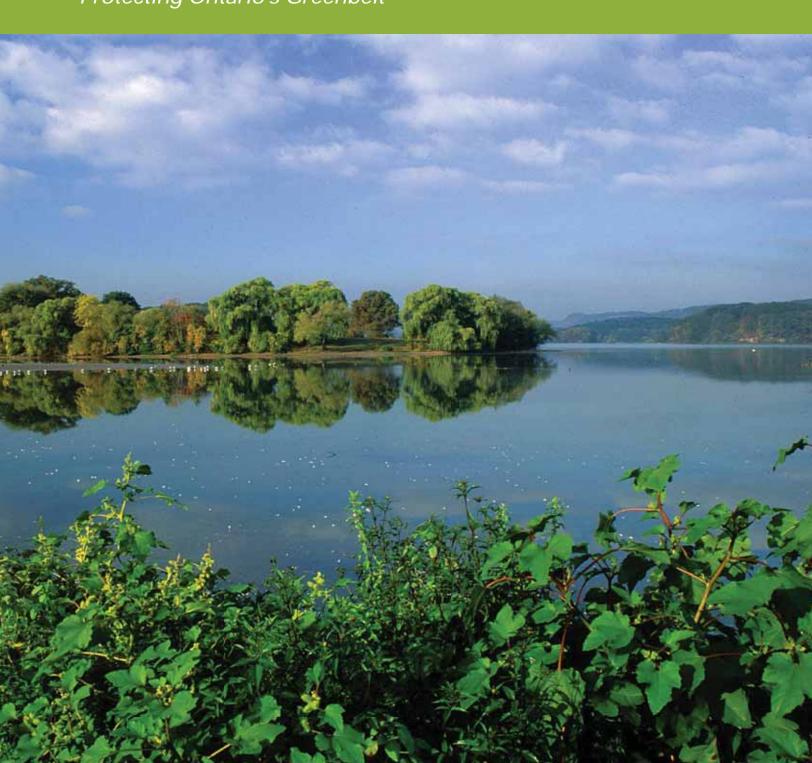


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Page 9: (Carroll's Bay Marsh, late-1800s) Courtesy Special Collections, Hamilton Public Library

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The preparation of this Cootes to Escarpment Park System Conservation and Land Management Strategy Phase II Report was guided by the Cootes to Escarpment Steering Committee.

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In addition to the steering committee members indicated above, the contribution of several other alternate and past steering committee members who assisted with the development of this Strategy is gratefully acknowledged.

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Funded by the Ontario Friends of the Greenbelt Foundation, this Strategy contributes to the implementation of the Greenbelt Plan. The Foundation is dedicated to promoting and sustaining the Greenbelt as a beneficial, valuable and permanent feature, enhancing the quality of life for all Ontario residents. The Foundation's vision is a vibrant and healthy Greenbelt with a protected and restored natural environment, a strong and successful rural countryside, a robust agricultural sector and a pattern of urban settlement that supports the Greenbelt.

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Dr. David Galbraith, Steering Committee Chair Michelle Albanese, Project Manager

Executive Summary

Introduction

In southern Ontario, too few opportunities remain to protect natural landscapes that inspire the spirit, as all too often these lands have been fragmented or damaged. In Ontario's Greenbelt, at the head of Lake Ontario and straddling the boundary of the cities of Hamilton and Burlington, there exists a collection of properties — ecological gems fragmented by history — that still hold the potential to be reconnected and protected as part of a natural legacy. This landscape is dominated by two of the region's most important features: Cootes Paradise Marsh — Canada's second migratory bird sanctuary (est. 1927), and the Niagara Escarpment — a UNESCO World Biosphere Reserve. Recognizing both the urgency and potential to protect this area, a collection of stakeholders partnered to chart a course of action to create an interconnected and sustainable system of accessible park lands called the Cootes to Escarpment Park System. This Park System would stretch 10 kilometres along the Escarpment and two kilometres south to Lake Ontario at Cootes Paradise Marsh.

The Greenbelt Plan, enacted in 2005 by the Ontario Ministry of Municipal Affairs and Housing, sets the framework for the permanent protection of natural heritage and water resource systems within its boundaries in order to sustain a healthy future for south-central Ontario. With funding provided by the Friends of the Greenbelt Foundation, the project partners have developed the Cootes to Escarpment Park System Conservation and Land Management Strategy to contribute to the implementation of the Greenbelt Plan by combining existing planning policies with conservation and sound land management practices.

This Strategy focuses on 1,560 hectares (3,855 acres) of natural lands owned by the project partners and has two main components:

- **1. Conservation**: Protecting long-term ecological functions through a natural systems approach.
- **2. Land management:** Identifying cooperative policies and actions for ecological management and compatible recreational uses of the core natural lands and the Park System as a whole.

The Strategy was developed by the Cootes to Escarpment Steering Committee, in consultation with a stakeholder advisory group and local citizens. The stakeholder advisory group and the community were invited during all stages of the development of this Strategy to attend meetings, open houses and stay informed through communications via the project website (www.cootestoescarpmentpark.ca). The Strategy proposes to conserve and manage the natural lands for the long-term based on the following vision and mission:

VISION

Our vision for the Cootes to Escarpment Park System is that it will be known internationally as a protected, permanent and connected natural lands sanctuary from the Harbour to the Escarpment that promotes ecosystem and human health within Ontario's Greenbelt.

MISSION

Our mission will be to collaboratively continue preserving and enhancing the natural lands using a sustainable approach that balances natural ecosystem health with responsible human appreciation and activities to achieve the vision.

While the Greenbelt Plan was developed to guide land use planning in Ontario, this Strategy is not a land use plan. It is a land management plan for public park lands that are primarily within the Greenbelt and are characterized by environmentally significant features. Since good land management practices are supported by many tools, this Strategy identifies land use planning policies that can support the Cootes to Escarpment Park System as well as other tools such as stewardship. Implementation of this Strategy will primarily rely on specific actions on park lands. However, it will also rely on the partners to work cooperatively to protect and promote the Park System using existing legal and stewardship practices including their own strategic plans, recreation master plans and official plans.

The foundation of the Cootes to Escarpment Park System is the unique ecological corridor from Cootes Paradise Marsh to a 10-kilometre section of the Niagara Escarpment. This area provides the only contiguous habitat connection from Lake Ontario to the Escarpment not broken by a 400 series highway. For the purposes of this Strategy, the Cootes to Escarpment Park System is divided into six core natural areas called Heritage Lands, which reflect the natural and cultural components of their respective area and are based on existing Environmentally Significant/Sensitive Areas (ESA)¹. Natural areas associated with the Heritage Lands are listed in Table 4.

The six Cootes to Escarpment Heritage Lands include:

- 1. Cootes Paradise Heritage Lands
- 2. Borers-Rock Chapel Heritage Lands
- 3. Clappison-Grindstone Heritage Lands
- 4. Waterdown-Sassafras Woods Heritage Lands
- 5. Lower Grindstone Heritage Lands
- 6. Burlington Heights Heritage Lands

The province recognizes many parts of these natural lands as Areas of Natural and Scientific Interest or Provincially Significant Wetlands and has included them within a provincial natural heritage system. These natural areas contain some of the most botanically rich lands in Canada and provide habitat for many important bird, reptile, amphibian, fish and insect species as well as many species at risk.

The Cootes to Escarpment Park System already contains 27 existing park lands owned by Royal Botanical Gardens, Conservation Halton, Hamilton Conservation Authority, City of Burlington, City of Hamilton and Bruce Trail Conservancy. These 1,560 hectares (3,855 acres) of land form the backbone of a recreational system where the public can experience and appreciate natural environments. However, the urban growth and intensification expected over the next 20–25 years in Hamilton and Burlington threatens the health of these natural areas. By 2031 the region is expected to grow to 1.4 million residents, which will result in a 57 per cent population increase. This increase will place greater demand on natural areas for recreation and education. At the same time, ecological integrity will become even more tenuous without large connected habitat areas to protect the biodiversity of Ontario.

In order to achieve the vision for the future Park System, the Strategy identifies that existing park lands and core natural systems need to be expanded. An additional 640–750 hectares (1,581–1,853 acres) of private and Ontario Realty Corporation property is considered important in protecting and connecting the natural areas in the current Park

¹ In the City of Hamilton the natural areas are termed Environmentally Significant Areas and in the Region of Halton the natural areas are termed Environmentally Sensitive Areas. For the purposes of this Strategy, ESA will be used with the understanding that it includes both sets of inventoried areas.

System and will be considered in a land securement strategy to be developed outside of this Strategy. Bringing additional lands into the public realm could occur mainly through voluntary agreement to sell or donate property, or through land dedication associated with a subdivision development. While the Cootes to Escarpment Park System focuses on protecting core ESA, this Strategy recognizes that there are other connected significant natural features and supports the protection of those features through land use planning, watershed planning and stewardship actions.

In addition to acquiring new lands through land securement, the management of current park lands needs to be addressed. Therefore, the land management component of this Strategy includes policies and actions to guide the collective management of the current park lands within the Park System. These include policies and actions for natural and cultural heritage, recreation, education and facilities.

Many of the existing individual park properties are classified through the Niagara Escarpment Parks and Open Space System (NEPOSS) and are required to conform to the Niagara Escarpment Plan. Park properties outside the Niagara Escarpment Plan Area and Greenbelt Plan are not classified. This classification structure identifies the main management objective the properties need to fulfill within the Park System, and together with the policies and actions outlined in the Strategy will guide future area-specific management plans. Together, the classification, policies and actions identify common directions the partners can implement through specific management plans to protect the natural system and provide a variety of recreational opportunities at a broad scale. It is envisaged that a Cootes to Escarpment Park System Management Network will be formed to implement this Strategy. The management network would include not only the partners, but also provincial government, and institutional and local interest groups with a stake in seeing the Park System managed for the long-term health of the community.

The complete Park System will include an inter-regional trail system that connects the park lands with the Bruce Trail and Lake Ontario Waterfront Trail. Through the Cootes to Escarpment Park System, those parts of the inter-regional trail that are not part of the Lake Ontario Waterfront Trail will be primarily designed for hiking. Main access and facilities for recreation and nature education will be centred on South Shore Cootes Paradise, North Shore Cootes Paradise, King City Quarry, City Park, Bayview Park and Kerncliff Park. Other park lands will provide primarily hiking and interpretive opportunities.

The Cootes to Escarpment Park System Conservation and Land Management Strategy identifies a vision to protect local, provincial and national environmentally significant natural areas that shape our landscape. It provides guidance on cooperative actions to realize this vision that supports the interest of the partner organizations to secure permanent protection of significant natural lands and provide public recreation and education opportunities.

1 Introduction

1.1 Background

The Cootes to Escarpment Park System Conservation and Land Management Strategy Phase II Report is the second of three published reports for the Cootes to Escarpment Park System. The first document, Cootes to Escarpment Conservation and Land Management Strategy Phase I Background Report, was published in December 2007 and provides background details on the study area's legislation and official plans, as well as its natural, cultural, social and economic environments. The third document, *Cootes to Escarpment Park System: A Conservation Vision*, is a high-level public-friendly summary of the Phase II report.

1.2 Essence of the Strategy

This Strategy outlines the vision for the conservation and land management of what will be a protected and connected public park area known as the Cootes to Escarpment Park System. The long-term health of the current park lands requires the natural areas to be connected. To achieve this, the Strategy identifies a future Park System where natural areas will be protected and biodiversity can continue to the extent possible within this developed region of southern Ontario. It is expected that permanent protection will primarily be achieved through public ownership. Thus, this Strategy also outlines a collective land management direction for protecting the health of the ecosystem as well as recreation and education opportunities. The Strategy will be implemented by the cooperative actions of the Cootes to Escarpment Park System Management Network to carry forth the vision.

1.3 Vision

Our vision for the Cootes to Escarpment Park System is that it will be known internationally as a protected, permanent and connected natural lands sanctuary from the Harbour to the Escarpment that promotes ecosystem and human health within Ontario's Greenbelt.

The primary focus of the vision is to establish a sustainable natural system that will contribute to ecosystem integrity and enhance the quality of life for the public through appreciation of the natural environment.

1.4 Mission

Our mission will be to collaboratively continue preserving and enhancing the natural lands using a sustainable approach that balances natural ecosystem health with responsible human appreciation and activities to achieve the vision.

The mission statement is directed to all those who will be implementing the vision and this Strategy. Collaboration is key to enhancing and protecting this valuable area.

1.5 Objectives

The objectives further define the vision and mission statements and identify the main components necessary to ensure the integrity and health of the Park System and its environs.

Natural Heritage Objective: To protect, restore and enhance the ecological system by ensuring the health and diversity of species, habitats and natural processes forever. This includes consideration of linkages through urban areas and natural lands beyond the boundaries of the Park System.

Recreation Objective: To provide opportunities for appropriate passive recreation that support active living while maintaining the biological and physical integrity of the lands.

Cultural Heritage Objective: To identify, protect and preserve cultural heritage features for their valuable reflection of the historical use and occupancy of the area.

Interpretation Objective: To provide educational opportunities that promote knowledge, understanding and appreciation of natural and cultural values, environmental sensitivity and significance, and the associated conservation needs.

Management Objective: To manage the public lands through partner collaboration to ensure all Cootes to Escarpment Park System objectives are achieved. The owners of the park lands will promote responsible stewardship of the lands and of adjacent private lands through ongoing community involvement in park planning and management.

1.6 Project Partners

The project partners include Royal Botanical Gardens (RBG), Hamilton Conservation Authority, Conservation Halton, City of Hamilton, City of Burlington, Region of Halton, Bruce Trail Conservancy (formerly known as Bruce Trail Association), Hamilton Naturalists' Club and Hamilton Harbour Remedial Action Plan². These landowners and key stakeholders recognize the lands they own or manage form the backbone of natural areas in a landscape experiencing population growth and urban development. A coordinated effort to steward these lands and natural systems is necessary to ensure their wise use and protection.

1.7 Towards a Sustainable Community

As cities continue to grow the natural spaces that define our landscapes are subject to degradation and fragmentation. Places to play are integral to our health but we must achieve a balance when meeting our recreational needs without compromising the sustainability of the area's plants and animals.

The Cootes to Escarpment Park System Strategy study area covers approximately 3,440 hectares (8,500 acres) of public and private land, of which a large part is within and adjacent to the Niagara Escarpment Plan Area (a UNESCO World Biosphere Reserve) as well as the Greenbelt Plan (Figure 1). A closer view of the study area reveals how many individual landowners are affected by this Strategy as well as the various roles that public agencies have relating to jurisdictional boundaries (Figure 2).

The study area is made up of distinct cultural and biological features. Foremost is the unique biological landscape of the Niagara Escarpment and its link with Lake Ontario. Concern over the potential loss of this landscape has propelled the development of this Strategy, which is intended to guide the conservation of natural resources in a rapidly urbanizing landscape and provide the necessary green infrastructure for future residents to enjoy a healthy community. It is also apparent that a strong natural system is dependent upon private landowners to protect natural areas both on and adjacent to their property. However, both public *and* private conservation is needed to help maintain a functioning natural system and healthy Greenbelt.

The Strategy presents a vision of how the lands within the study area contribute to sustaining our community for the long term. The components and essence of the Strategy's vision and mission statements for the Cootes to Escarpment Park System were developed by the Cootes to Escarpment Stakeholder Advisory Group and reflect the values of the community and provide direction for the Park System to evolve over time.

² The legal names for the following are Halton Region Conservation Authority (Conservation Halton) and Hamilton Region Conservation Authority (Hamilton Conservation Authority)



1.8 Study Approach

This Strategy was developed based on community engagement and education on the issues surrounding recreation and natural lands. Underpinning this was the need to understand and integrate community values with conservation values. Thus, a community-based planning approach was used to balance the environmental, cultural, historic and social values associated with these lands. This Strategy was also developed based on available background information, land ownership patterns and aspirations of the partners who actively participated in this project. The study area (Figure 2) includes lands beyond the features of Cootes Paradise and the Niagara Escarpment to capture the immediate surrounding neighbourhoods of North Aldershot in the City of Burlington, as well as Waterdown, Dundas and Westdale in the City of Hamilton.

1.9 Study Process

The Cootes to Escarpment Steering Committee, which included the nine project partners, quided the development of this Strategy in two phases.

Phase I (July to December 2007) involved collecting information on the physical, social and economic characteristics of the area. Information was collected through a literature review documented in the Phase I Background Report (Royal Botanical Gardens, 2007). The natural areas were documented through various natural areas inventories and some site-specific work primarily associated with Cootes Paradise and species at risk studies. Cultural heritage was documented through the City of Burlington (Region of Halton) and the City of Hamilton cultural heritage inventories as well as archeological research of pre-European settlement around Cootes Paradise. Documentation of the recreational use of the lands was largely done through collection of anecdotal information since no formal surveys exist. The Phase I Background Report also identifies the legislative and policy directions of provincial and local governments that apply to this area.

Phase II (January 2008 to June 2009) involved an in-depth public consultation process to help identify issues and develop a vision, concept plans and management recommendations. The process allowed stakeholders and residents to contribute to the development of the Strategy by providing comments to the steering committee, and facilitated an opportunity to raise awareness of the region's natural and cultural resources and the need to establish appropriate recreation within the Cootes to Escarpment study area.



PUBLIC CONSULTATION PROCESS SUMMARY:

- Contacted approximately 120 potential stakeholders to encourage and invite participation in the stakeholder advisory group.
- Mailed approximately 3,000 notices inviting landowners and stakeholders to learn about the project at a public open house. This public notice was also advertised in local papers.
- Held first public open house in January 2008 to introduce the project and encourage residents to participate on the stakeholder advisory group. The event was attended by approximately 180 people.
- Formed a stakeholder advisory group consisting of over 30 members from local and provincial agencies, special interest organizations and resident landowners. This group met seven times through the course of the project and participated in a bus tour of the study area.
- Held a day-long community forum, open to the public, to identify potential actions to key themes garnered through the public open house.
- Facilitated sessions for project partner staff to contribute knowledge and feedback on management of the natural lands.
- Mailed approximately 3,500 notices inviting landowners and stakeholders to learn about the project at a second public open house. This public notice was also advertised in local papers.
- Held second public open house in February 2009 to present the draft Strategy and provide an opportunity for review and input. The event was attended by approximately 170 people.
- Maintained ongoing communication with the public via the website at www.cootestoescarpmentpark.ca.

2 Context and Background

The Cootes to Escarpment Park System straddles the boundary of the City of Hamilton and the City of Burlington, which is part of the Region of Halton (Figure 2). In total there are 27 individual properties comprising 1,560 hectares (3,855 acres) owned by stakeholders within the Park System (Table 4). The central natural features include a 10-kilometre portion of the Niagara Escarpment and the lands and waters associated with Cootes Paradise and Grindstone Creek. Watershed jurisdiction is with the Hamilton Conservation Authority and Conservation Halton while the principle property owner is Royal Botanical Gardens. The Phase I Background Report provides detailed information on the study area, while the following summarizes the main aspects.

The two main watersheds within the study area are Grindstone Creek (approximate watershed area of 9,000 hectares) and Spencer Creek (approximate watershed area of 27,900 hectares). The mouth of Spencer Creek is a 250-hectare shallow marsh and open water area known as Cootes Paradise Marsh. Cootes Paradise Marsh historically outlet to the estuary of Grindstone Creek, until the current outlet directly into Hamilton Harbour was created in the 1850s. The estuary is now separated from Cootes Paradise Marsh by fill connecting Burlington Heights, a glacial bay-mouth sandbar, with the north shore of Hamilton Harbour (also referred to as Burlington Bay).

The Niagara Escarpment is a major geological and ecological feature extending 725 kilometres from Queenston in Niagara Region to Tobermory on the Bruce Peninsula. The Niagara Escarpment is recognized internationally by the Bureau of the United Nations Educational, Scientific and Cultural Organization (UNESCO) Man and Biosphere Program as a World Biosphere Reserve. This limestone ridge is a glacial rebound feature formed by deposits on the bed of an Ordovician tropical sea. Several glacial advances, erosion and weathering have created the feature it is today.

Through Dundas, Flamborough and Burlington the Niagara Escarpment is characterized by a variety of habitats such as a wide re-entrant valley (Spencer Creek), cliff faces and narrow ravines (Grindstone Creek). Several smaller watersheds drain directly into Cootes Paradise Marsh or Hamilton Harbour from the Escarpment, including Chedoke, Borer's, Westdale, Long Valley, Hickory, Falcon, Indian, Hager and Rambo creeks, which start just above the Escarpment. This part of the Niagara Escarpment is one of the few sections with a southern aspect. It is this south-facing protected microclimate that creates habitat for a wide diversity of species. These conditions create the specialized habitats for southern Carolinian forest zone plant species to exist at their northern limits and more northern species at their southern limits. The natural areas contain some of the most botanically rich lands in Canada, and provide habitat for many important bird, reptile, amphibian, fish and insect species. Cootes Paradise Marsh and Grindstone Estuary connect this ecological unit to Lake Ontario through Hamilton Harbour.

2.1 Natural Systems

There are seven main natural areas associated with the Niagara Escarpment and Cootes Paradise that have been inventoried as ESA at the local level: Cootes Paradise Marsh, Borer's Falls-Rock Chapel, Clappison Escarpment Woods, Grindstone Creek Escarpment Valley, Waterdown Escarpment Woods, Sassafras Woods and Bridgeview Valley (Figure 3). All, except for Bridgeview Valley, are classified by the province as Life Science Areas of Natural and Scientific Interest (ANSI)³. Small parts of Hamilton Harbour, Dundas Valley and Nelson Escarpment Woods ESA extend into the study area. As well, a species inventory was completed in the Former National Sewer Pipe Lands to the east of Sassafras Woods in Halton Region and the property was identified as a candidate ESA.

³ The provincial and local designated areas have slightly different boundaries in some instances.

Overall, 1,582 species of flora and fauna have been documented through biological inventories of these areas (Table 1). Although not complete lists, these surveys have identified populations of eight endangered, nine threatened and 14 special concern species that use the habitats found within these natural areas (Table 2), while more intensive surveys of Royal Botanical Gardens' nature sanctuaries have located over 50 species (Table 3).

Table 1: Total Number of Species from Natural Areas Inventory Databases of Hamilton Conservation Authority and Conservation Halton

Category	Number	
Plants	1,241	
Amphibians and Reptiles	39	
Dragonflies and Damselflies	55	
Butterflies	68	
Mammals	37	
Birds	142	
Total	1,582	

Table 2: Species at Risk from Natural Areas Inventory Databases of Hamilton Conservation Authority and Conservation Halton

Common Name	Scientific Name	OMNR Status	COSEWIC Status
Amphibians and Reptiles			
Blanding's Turtle	Emydoidea blandingii	THR	THR
Common Musk Turtle	Sternotherus odoratus	THR	THR
Eastern Box Turtle	Terrapene carolina	DD	DD
Eastern Fox Snake	Elaphe gloydi	THR	THR
Eastern Milk Snake	Lampropeltis t. triangulum	SC	SC
Eastern Spiny Softshell	Apalone spinifera spinifera	THR	THR
Jefferson Salamander	Ambystoma jeffersonianum	THR	THR
Northern Map Turtle	Graptemys geographica	SC	SC
Northern Ribbonsnake	Thamnophis sauritus septentrionalis	SC	SC
Birds			
Black Tern	Chlidonias niger	SC	NAR
Cerulean Warbler	Dendroica cerulea	SC	SC
Golden-winged Warbler	Vermivora chrysoptera	THR	THR
Henslow's Sparrow	Ammodramus henslowii	END	END
Hooded Warbler	Wilsonia citrina	THR	THR
Least Bittern	Ixobrychus exilis	THR	THR
Loggerhead Shrike	Lanius Iudovicianus	END	END
Louisiana Waterthrush	Seiurus motacilla	SC	SC
Prothonotary Warbler	Protonotaria citrea	END	END
Red-headed Woodpecker	Melanerpes erythrocephalus	SC	SC
Yellow-breasted Chat	Icteria virens	SC	SC
Insects			
Monarch	Danaus plexippus	SC	SC

DD=Data Deficient NAR=Not At Risk SC=Special Concern THR=Threatened END=Endangered

Table 2 con't.

Common Name	Scientific Name	OMNR Status	COSEWIC Status
Mammals			
Woodland Vole	Microtis pinetorum	SC	SC
Plants			
American Chestnut	Castanea dentata	END	END
American Columbo	Frasera caroliniensis	SC	SC
Bashful Bulrush	Trichophorum Planifolium	END	END
Broad Beach Fern	Phegopteris hexagonoptera	SC	SC
Butternut	Juglans cinerea	END	END
Red Mulberry	Morus rubra	END	END
White Wood Aster	Eurybia divaricata	THR	THR

 Table 3: Species at Risk within Royal Botanical Gardens' Nature Sanctuaries

Common Name	Scientific Name	OMNR Status	COSEWIC Status
Amphibians and Reptiles			
Blanding's Turtle	Emydoidea blandingii	THR	THR
Eastern Milk Snake	Lampropeltis t. triangulum	SC	SC
Eastern Ribbonsnake	Thamnophis sauritus	SC	SC
Eastern Spiny Softshell	Apalone spinifera spinifera	THR	THR
Jefferson Salamander	Ambystoma jeffersonianum	THR	THR
Musk Turtle	Sternotherus odoratus	THR	THR
Northern Map Turtle	Graptemys geographica	SC	SC
Snapping Turtle	Chelydra serpentina	SC	SC
Birds			
Acadian Flycatcher	Empidonax virescens	END	END
American White Pelican	Pelecanus erythrorhynchos	NAR	END
Bald Eagle	Haliaeetus leucocephalus	NAR	END
Black Tern	Chlidonias niger	SC	NAR
Canada Warbler	Wilsonia canadensis	THR	
Cerulean Warbler	Dendroica cerulea	SC	SC
Chimney Swift	Chaetura pelagica	THR	
Common Nighthawk	Chordelies minor	THR	
Golden Eagle	Aquila chrysaetos	NAR	END
Golden-winged Warbler	Vermivora chrysoptera	THR	THR
Henslow's Sparrow	Ammodramus henslowii	END	END
Hooded Warbler	Wilsonia citrina	THR	THR
King Rail	Rallus elegans	END	END
Kirkland Warbler	Dendroica kirtlandii	END	END
Least Bittern	Ixobrychus exilis	THR	THR
Loggerhead Shrike	Lanius ludovicianus	END	END
Peregrine Falcon	Falco peregrinus	SC	
Prothonotary Warbler	Protonotaria citrea	END	END

DD=Data Deficient NAR=Not At Risk SC=Special Concern THR=Threatened END=Endangered

Table 3 con't.

Common Name	Scientific Name	OMNR Status	COSEWIC Status
Birds			
Red-headed Woodpecker	Melanerpes erythrocephalus	SC	SC
Red-shouldered Hawk	Buteo lineatus	SC	
Rusty Blackbird	Euphagus carolinus	Pending	Pending
Short-eared Owl	Asio flammeus	SC	
Yellow-breasted Chat	Icteria virens	SC	SC
Fish			
American Eel	Anguilla rostrata	SC	END
Bigmouth Buffalo	Ictiobus cyprinellus	NAR	SC
Grass Pickerel	Esox americanus vermiculatus	SC	SC
Northern Brook Lamprey	Ichthyomyzon fossor	SC	SC
Spotted Gar	Lepisosteus oculatus	THR	THR
Insects			
Monarch	Danaus plexippus	SC	SC
Mammals			
Eastern Mole	Scalopus aquaticus	NAR	SC
Southern Flying Squirrel	Glaucomys volans	NAR	SC
Woodland Vole	Microtus pinetorum	SC	SC
Molluscs			
Eastern pondmussel	Ligumia nasuta	END	END
Plants			
American Chestnut	Castanea dentata	END	END
American Columbo	Frasera caroliniensis	SC	SC
Blue Ash	Fraxinus quadrangulata	SC	SC
Broad Beach Fern	Phegopteris hexagonoptera	SC	SC
Butternut	Juglans cinerea	END	END
Common Hoptree	Ptelea trifoliata	THR	THR
Cucumber Tree	Magnolia acuminata	END	END
Dense Blazingstar	Liatris spicata	THR	THR
Eastern Flowering Dogwood	Cornus florida	END	
Few-flowered Club-rush	Trichophorum planifolium	END	END
Kentucky Coffee-tree	Gymnocladus dioica	THR	THR
Red Mulberry	Morus rubra	END	END
White Wood Aster	Eurybia divaricata	THR	THR
Wood Poppy	Stylophorum diphyllum	END	END

DD=Data Deficient NAR=Not At Risk SC=Special Concern THR=Threatened END=Endangered The former quarries within Clappison Escarpment Woods and Waterdown Escarpment Woods are listed as Provincial Earth Science Areas of Natural and Scientific Interest. Cootes Paradise Marsh is a 250-hectare (approximate) Provincially Significant Wetland (PSW) that is also identified as an Important Bird Area of national significance by Bird Life International. RBG-Hendrie Valley-Lambs Hollow Wetland on lower Grindstone Creek is also a PSW. In addition, Royal Botanical Gardens' Cootes Paradise, Carroll's Bay and Grindstone Valley nature sanctuaries were recently designated as an Important Amphibian and Reptile Area (IMPARA) by the Canadian Amphibian and Reptile Conservation Network. This is only the fourth area in Canada to receive such a designation. Carolinian Canada recognizes Sassafras Woods as a Carolinian site and several other ESA as Core Natural Areas.

The existing natural areas and watercourses within the study area are part of provincial and local greenlands systems in recognition that the natural, physical and hydrological features are interrelated and collectively support biodiversity, which must be protected. Looking beyond what exists to consider what could or should exist, moves habitat protection towards longer term biophysical systems that function with ecological integrity. Protection and rehabilitation of impaired habitats and habitats in diminishing supply, such as meadow, are integral to a fully functional greenlands system. The identification of future areas for rehabilitation and restoration will be completed through future land management planning, which is described further in Section 5.

Within the Hamilton Harbour watershed, the Hamilton-Halton Watershed Stewardship Program (2006) proposed targets to provide direction for further restoration work. Using Environment Canada's How Much Habitat is Enough (2004) as a guide, targets have been developed based on historical conditions and realistic potential increases in habitat area. These targets are listed in Section 5.4.4 of the Cootes to Escarpment Conservation and Land Management Strategy Phase I Background Report. Since current conditions do not meet Environment Canada guidelines for habitat targets, it is imperative that existing habitat be protected. Riparian habitat as well as forest cover and interior forest cover are the primary habitats with potential for restoration within the study area. To meet the proposed targets, additional forest cover is needed in the approximate amounts of 100 hectares (18 per cent) in the North Shore Watershed, 490 hectares (30 per cent) in the Grindstone Watershed and 2,753 hectares (30 per cent) in the Spencer Creek Watershed. Forest cover targets will be integrated into a future land securement strategy for the Park System. The land securement strategy is further discussed in Section 4.

Maintaining and increasing woodland cover is probably the most important factor to protecting biodiversity in fragmented southern Ontario landscapes. At a broad regional scale, it is also valuable to have a diversity of habitats to maintain landscape richness. Opportunities for the restoration of natural connections need to be identified and implemented. Protecting and enhancing existing wildlife pathways, such as along stream corridors, and protecting natural features in close proximity to each other are also important to natural system functions.

2.2 Cultural History

While the main focus of this Strategy is to protect the study area's natural environment, this land has been, and continues to be, affected and shaped by ecologically historical events and human activities. Ancient seas created the Niagara Escarpment about 430 million years ago. The last glacial retreat formed the Burlington Heights sandbar (also known as Hamilton Bar) that first allowed Cootes Paradise Marsh to form. Warmer and drier conditions about 5,000 years ago allowed the prairie habitats to move into this area. Given recent research into changing climatic conditions due to altered atmospheric conditions, these past events demonstrate that natural habitats do change and management directions may need to consider how to respond to changes in climate.

Since the last ice age, First Nations activity appears to have been primarily associated with seasonal hunting and fishing around Cootes Paradise. Evidence of seasonal use, and possibly structures, have been found through archeological surveys at Princess Point. With Loyalist settlement of the area in the early 1800s, changes to the natural systems escalated — land was cleared to establish farms and towns, lumber was needed for milling and transportation routes were created. Many of these early historical events and structures are centred on the Burlington Heights sandbar, Waterdown and the former Town of Dundas. The results of these cultural actions are obvious in the remains of the Desjardins Canal, the High Level Bridge and heritage buildings throughout the area, and less obvious in the regenerating forest lands, archeological artifacts and influence of Thomas McQueston, a local politician who became very involved in the early protection of RBG lands.

The vision of Thomas McQueston is most often credited with the creation of the west entrance to the City of Hamilton that has resulted in the protection of today's many natural lands. In the late 1920s, McQueston, through the Hamilton Board of Parks Management, and with the Hamilton Bird Protection Society (now Hamilton Naturalists' Club), convinced the Province of Ontario to declare Cootes Paradise as a Crown Game Reserve. Over the next 15 years, lands were acquired and formed the nucleus of lands transferred to the newly created Royal Botanical Gardens in 1941. Since then, additional lands have been acquired, totalling the current assemblage at about 1,550 hectares owned by Hamilton Conservation Authority, Conservation Halton, Bruce Trail Conservancy, City of Hamilton, City of Burlington and Region of Halton.

2.3 Recreation, Education and Interpretation

Most of the recreation lands in the Park System are primarily used for hiking. Some regional hiking trails have already been established, including the Lake Ontario Waterfront Trail and Hamilton Waterfront Trail, which cross the south side of the study area along the waterfront, and the Bruce Trail, which is located across the north side of the Park System.

The Bruce Trail Conservancy (BTC) began its work in the early 1960s to raise awareness for the protection of the Niagara Escarpment. Its mission is to secure a permanent conservation corridor containing a public footpath along the Niagara Escarpment to protect natural ecosystems and make it publicly accessible. Within the Park System, the BTC has 20.6 kilometres of main trail and 9.5 kilometres of side trail, of which 13 and 7.1 kilometres respectively are secured. Secured trail passes through public lands owned by the conservation authorities, BTC and the Ontario Heritage Trust, while unsecured parts of the trail pass through privately owned property on hand-shake agreements or are diverted onto roads. The BTC has a strong land securement program that aims to secure the entire Bruce Trail Corridor through the study area in a timely manner.

Unofficial mountain bike trails have been created on public lands within the study area, primarily in the Clappison Woods and Grindstone Creek properties, and to a lesser extent in Waterdown Woods. Conflict exists between hikers and mountain bikers in these locations. Creation of unauthorized bike trails is a concern due to the negative impact on sensitive features and the possible liability issues for landowners.

Opportunities for active recreation are provided on municipally owned properties at Hidden Valley Park in Burlington as well as at Martino Memorial Park and Olympic Sports Park in Dundas. Burlington is in the process of developing a new city park at Kerns Road and Dundas Street. Historically, the City of Hamilton has managed Churchill Park for active recreation, which is part of the South Shore Cootes Paradise property owned by Royal Botanical Gardens. Education about the natural environment is provided by Royal Botanical Gardens through both school and public programs from the Nature Interpretive Centre at the Arboretum/North Shore Cootes Paradise. Other non-profit organizations

provide public programs or guided nature hikes using the natural lands primarily along the Escarpment, while McMaster University runs outdoor programs at South Shore Cootes Paradise.

2.4 Future Growth and Sustainability

Sustainability is about bringing our social, economic and natural environments into balance. The cities of Hamilton and Burlington as well as the Region of Halton have expressed a strong desire to become sustainable communities. The Greenbelt Plan (Ontario Ministry of Municipal Affairs and Housing, 2005) and Growth Plan for the Greater Golden Horseshoe (Ontario Ministry of Public Infrastructure and Renewal, 2006) have recognized that for growth to be sustainable, both natural and agricultural lands need to be protected. The Greenbelt Plan vision is to give permanent protection to the natural heritage and water resource systems that sustain both ecological and human health. Most of the Cootes to Escarpment study area is within the Greenbelt Plan or Niagara Escarpment Plan Area (NEPA) (Figure 4). The Greenbelt Plan has lands designated as Protected Countryside and has also identified a Natural Heritage System. The NEPA has lands designated as Natural, Protection and Rural Areas. The Niagara Escarpment Plan designations and policies apply to management of lands within the plan area. It is intended that these protected lands will form the environmental framework around which future urban areas can grow. As well as supporting environmental protection, a system of publicly accessible parks, open space and trails will be created for recreation and cultural/ natural heritage appreciation. Along the Niagara Escarpment, some public lands have been included in the Niagara Escarpment Parks and Open Space System.

Within the study area, implementing the Greenbelt Plan vision has great resonance. The combined population of the Region of Halton and City of Hamilton is approximately 914,000. This population is projected to grow to 1,440,000 by 2031 (a 57 per cent increase). In the immediate area of the natural lands of Waterdown and North Aldershot, approved development will bring in an additional 10,600 to 21,700 people. This increase in population will place greater demand for use of natural areas for recreation and education. The broad area from the tablelands at the top of the Niagara Escarpment to Cootes Paradise and related ravines and streams form the only remaining ecological corridor between a coastal wetland adjacent to Lake Ontario and the Niagara Escarpment. Along the Escarpment, extending from this broad corridor, are a series of natural areas that have the necessary biophysical conditions to support a number of Carolinian species, which are at the northern limit of their North American range. To achieve the vision of the province as well as the cities of Hamilton and Burlington for sustainable communities, the policy protection for natural areas needs to be translated into a protected and connected system of publicly accessible park lands.

3 The Cootes to Escarpment Park System

This Strategy identifies a future Park System in keeping with the vision of Ontario's Greenbelt Plan to have a broad band of permanently protected land. It implements at the local level the protection and restoration of natural systems necessary to sustain ecological and human health. It also provides a natural setting for appropriate recreation activities that will instill a sense of connection with and understanding of the natural systems with which we are a part. An important component of the Park System is the protection and restoration of natural connections between the Niagara Escarpment and Lake Ontario through Cootes Paradise. This Strategy provides the overall long-term guidance necessary to coordinate the formation of the natural Park System, which is expected to occur over the next couple of decades, and the management of the natural areas, cultural features, recreational facilities and trails.

This Strategy is not a land use plan and does not impose on any rights of the private landowner under current laws and regulations. Provincial plan, official plan, and zoning by-law designations, policies and regulations continue to apply.

3.1 Park System Concept Development

Through the first half of 2008, the development of the Strategy focused on providing opportunities for public input and involvement in formulating key directions for the concept development of the Park System.

Key themes and issues identified through the public consultation process:

- 1. There is broad support for protecting the existing natural areas.
- 2. There is concern over the rate of urban development and maintaining firm urban boundaries.
- 3. There is concern about trespassing on private lands.
- 4. There is confusion on what recreational uses are permitted and where.
- 5. A hierarchy of approaches to bring privately owned lands into the Park System is preferred.
- There is recognition that certain types of natural areas should not be accessible for recreational use.
- 7. The intensity of recreational use should be related to the sensitivity and existing disturbance to the land base.
- 8. Motorized activities and horse-back riding are generally considered inappropriate activities.
- Activity areas should be concentrated at nodes within the system and public
 accessibility facilitated. (Access points are identified in Table 5 and Figure 7; however,
 locations for nodes have not been identified in this Strategy but will be part of the
 future management planning process.)
- 10. Interpretation and education programs related to the natural and cultural heritage of the area are important in developing an understanding of their value.
- 11. A coordinated local management system needs to be developed and the resulting Strategy implemented. The availability of long-term operational funding is a concern.

In addition to the key themes and issues, recurrent observations and concerns were articulated on particular areas and topics.



SUMMARY OF RECURRENT OBSERVATIONS AND CONCERNS:

- 1. Providing opportunities for people to walk or bike to and between the core areas is desired. Accessibility by public transit and for those with mobility issues would allow the natural areas to be used by a greater segment of the population.
- 2. Highway 6, York Road, Cootes Drive and the future upgraded Waterdown Road create major physical barriers, fragmenting the natural system. There is concern that King Road will also become a major physical barrier with expected urban growth above and below the Escarpment in the near future. These roads also present challenges to east-west pedestrian movement, while Highway 403 challenges north-south movement. King Street in Dundas is also of concern for similar fragmentation reasons.
- 3. Except for Borer's Falls-Rock Chapel ESA, the core natural areas are in or adjacent to existing or proposed urban residential, institutional or commercial development. Their proximity to urban populations, historical use, and existing official and unofficial trails mean managing entire properties primarily for ecological conservation, and not public recreation, may be unrealistic.
- 4. Seven large properties in Lots 22-26, Concession 2 and Lots 23-25, Concession 1 in the Pleasantview Survey of Dundas are strategically located on a bench of the Niagara Escarpment between Cootes Paradise and Borer's Falls-Rock Chapel ESA. Five of these properties are vacant. As regenerating meadow, these five properties contribute to the biodiversity of the landscape. As one of the few undeveloped tableland areas below the Escarpment, it is unique for its physical and hydrological characteristics. The watersheds of the streams that flow from these lands into Cootes Paradise Marsh are the last largely unaltered watersheds flowing into Cootes Paradise and Hamilton Harbour. The area also provides unique views of the Niagara Escarpment face and its physical structure around Hamilton Harbour, as well as views of Cootes Paradise Marsh. These properties have had several proposals over the decades for residential development. Thus, the protection of these lands is an opportunity to strengthen the ecological system as well as contribute to the recreational system. Other areas are within planned urban boundaries, but development can negatively affect the features and functions of neighbouring natural areas.

The conceptual approach to the Cootes to Escarpment Park System arose from these themes and issues. This type of approach can generally be described as defining the park boundary based on protecting natural features and functions, coordinating the provision and management of a public recreation system across the area, and having strategies (e.g. landowner incentives) that encourage private landowners to participate in the protection of natural features.

3.2 The Proposed Cootes to Escarpment Park System

The Cootes to Escarpment Park System is one component of a multi-faceted system for protecting and enhancing natural heritage areas and providing recreational opportunities for healthy communities. Land use planning policy, watershed planning and recreation planning complement and address broader community directions for recreation systems and natural systems protection.

The potential boundary of the Cootes to Escarpment Park System is delineated on Figure 6 by the black dashed line and is described as follows:

3.2.1 CURRENT PARK LANDS

The properties identified in Figures 5 and 6 comprise the current park lands of the Park System. They include lands owned by Conservation Halton, Hamilton Conservation Authority, City of Burlington, Region of Halton, City of Hamilton, Bruce Trail Conservancy, Royal Botanical Gardens and open space areas, which are hydro corridor lands. These properties (1,560 hectares) include core ESA that provide a range of public accessibility for recreation and education. Section 5 provides direction on the management of these lands.



3.2.2 POTENTIAL ADDITIONAL PARK LANDS

The potential Cootes to Escarpment Park System builds upon and strengthens secured park lands and the protection of the core areas of Cootes Paradise, Borer's Falls-Rock Chapel, Clappison Escarpment Woods, Grindstone Creek, Sassafras Woods and Waterdown Woods ESA on the Niagara Escarpment. This area is illustrated on Figure 6 and includes:

- 1. Current park lands as described in section 3.2.1; See Figure 5
- 2. Hydro corridor lands
- 3. Potential additional park lands, which include approximately 640–750 hectares of private and Ontario Realty Corporation lands important to protecting the core natural heritage system or Bruce Trail Corridor. These lands will not be publicly accessible until the lands voluntarily come into the public realm through ownership, easement or handshake agreement.

The park boundary would be dynamic until the acquisition of these lands is complete. All or part of the property may be transferred into the public system and the boundary would be negotiated at that time. Typically, buildings including farm structures, existing residences, institutional offices, as well as active farmland, would not be within the public Park System. Considerations such as a suitable buffer to natural features, providing area for park service functions outside natural areas, and the interests of the landowner are factors that might affect the final boundary. The boundary of the Park System in Waterdown South and Central North Aldershot planning areas will be refined by on-going municipal land use planning. Rail lands within the Park System boundary are not intended to be considered part of the system. Lands managed by Ontario Realty Corporation for the province within the Park System boundary (except those associated with provincial highways) have been proposed for inclusion in the Park System.

The Cootes to Escarpment Park System is divided into the following six core natural areas called Heritage Lands, which reflect the natural and cultural components of their respective area (see Table 4):

- Cootes Paradise Heritage Lands
- · Borer's-Rock Chapel Heritage Lands
- Clappison-Grindstone Heritage Lands
- · Waterdown-Sassafras Woods Heritage Lands
- Lower Grindstone Heritage Lands
- Burlington Heights Heritage Lands

To protect and improve upon the viability of the natural areas and to potentially add to the diversity of habitat areas within the Hamilton Harbour Watershed, a rural block between Cootes Paradise Heritage Lands and Borer's-Rock Chapel Heritage Lands is proposed for inclusion in the Park System. In the King Road area a major addition to the Waterdown-Sassafras Woods Heritage Lands will include rehabilitated quarry lands upon closure of the quarry. These additions will add about 106 hectares of core lands to the natural and recreational system. This would meet about 52 per cent of the forest habitat target in the North Shore Watershed and about 11 per cent for the Grindstone Watershed, if these lands were reforested.

3.2.3 COMPLEMENTARY STEWARDSHIP LANDS

The Park System, as delineated by the black dashed line of the Potential Park System boundary on Figure 6, protects the core Heritage Lands. These core areas exist within a larger environmental planning framework developed by the province and local municipalities. The Niagara Escarpment is the main natural connection that links the Cootes to Escarpment Park System to other natural areas locally and provincially, however all the lands in between and surrounding the core Heritage Lands also provide linkages and support the ecological function of the Park System. It is these areas that have been identified in the Strategy as complementary stewardship lands, as they help to complete the entire Park System. Many of the complementary stewardship lands are owned by private landowners, and while some of the properties are larger in acreage, many are smaller residential lots.

Complementary stewardship lands have been identified with the intention that every landowner in the Park System can make a voluntary positive contribution to the overall health and integrity of the surrounding ecological system through stewardship or positive management activities on their properties. Activities could include tree planting, wetland restoration, stream rehabilitation or even biodiversity and pollination gardens. The natural corridors associated with watercourses can especially contribute to the ecological health of the Hamilton Harbour Watershed and have been recognized in provincial and local plans, including watershed plans, municipal official plans and the Greenbelt Plan. These lands are also protected through the regulations of the two conservation authorities. Thus, while natural corridors are identified in this Strategy as complementary stewardship lands, their management will be specifically guided by watershed planning and stewardship programs.

This Strategy supports the continued application of existing legislation and policies as well as stewardship actions to protect the natural features and functions associated with the complementary stewardship lands. Unlike the current park lands and potential additional park lands, complementary stewardship lands will most likely remain in private ownership but this does not exclude the possibility that, if required, complementary stewardship lands could come into public Park System ownership via land dedication through the planning process or other methods of land securement.



4 Land Securement

In the broadest sense, land securement aimed at protecting ecosystem features and functions includes a range of tools including planning policy, stewardship and acquisition. These tools vary in their protective functions. The preferred securement method depends on many factors including the sensitivity of the feature, permanence needed, public access or use, applicable planning policies or regulations, funding availability, perceived threats, opportunity and urgency. A case-by-case assessment should be undertaken to determine the quality and significance of the resources or function of each property. Land held in public ownership by a government agency or non-profit land trust is seen as the most secure means of protecting the landscape and is also seen as the only reliable means of providing opportunities for people to experience natural areas in an urban setting. The other tools are equally important and each has a role to play in implementing the Cootes to Escarpment Park System.

4.1 Planning Policy

Four planning policy actions are important to support protection of the Cootes to Escarpment Park System.

- 1. The Greenbelt Protected Countryside and Niagara Escarpment Plan designations by the Province of Ontario should be retained.
- 2. The Province of Ontario should make a decision on the proposed amendment to Regulation 827 to bring the Pleasantview Survey and remaining Royal Botanical Gardens lands into the Niagara Escarpment Planning Area.
- 3. The local municipalities should continue to maintain the Open Space (City of Hamilton) and Recreation/Open Space and Environmental Protection (City of Burlington) designations on those lands that are currently designated as such and consider applying these designations as lands are brought into the Park System in the future.
- 4. The municipalities, conservation authorities, Royal Botanical Gardens, Bruce Trail Conservancy and Hamilton Naturalists' Club should consider incorporating or referring to this Strategy in their key planning documents, such as strategic plans, parks and recreation master plans, and official plans.

In addition, lands in East North Aldershot between Bayview Park and the closed Burlington Landfill could be considered under planning policy for inclusion in the Park System since they are currently urban areas that have not been identified as potential future parks. They are partially designated Urban Infill Residential and North Aldershot Special Study Area and offer a special opportunity to provide a strong recreational and natural area to help build a robust Park System through this section of the study area.

4.2 Stewardship

Stewardship involves careful and responsible management of lands entrusted to one's care. Environmental stewardship is based on the premise that all things are connected, thus responsible environmental management of natural features on private property contributes to the health of the entire system. As related to the Cootes to Escarpment Park System there are two main stewardship areas of action.

Private Ownership/Stewardship
 Not all natural lands have been included in the Park System. Private owners of natural lands can contribute to the protection of the overall system through a stewardship program, which would be aimed at private landowners including residential, agricultural, commercial and institutional properties ranging in size from small rear

yards to large tracts of land. The stewardship program would provide landowners with the following tools to help further their stewardship actions:

- Information about the natural features on or adjacent to their property
- Suggestions for stewardship activities and access to resources to help with implementation
- Information about tax incentive programs

The stewardship program could potentially be delivered through the Hamilton-Halton Watershed Stewardship Program (HHWSP). Alternatively, if a Cootes to Escarpment Park System Management Network is formed, consideration could be given to delivering the program through this organization. Legal conservation easements and offering monetary incentives may also be considered as part of the stewardship program.

2. Volunteer Park "Warden" System

Volunteer park wardens would help monitor activities on the trails and educate park users on acceptable activities within the Park System. They would help educate the public about the negative impacts of activities such as creating ad hoc trails, going off trails, off-leash dogs and using permanently or temporarily closed trails. Volunteer park wardens would also assist with maintenance and clean-up tasks. A key group from which to seek participation is the mountain biking community, as it is hoped they would self-monitor use in approved areas and assist with trail maintenance.

Stewardship of Bruce Trail Conservancy (BTC) properties in the Park System will be carried out under the BTC's Land Stewardship Program. The Iroquoia Bruce Trail Club has a volunteer land steward for every BTC property, who in turn is aided by Land Stewardship staff members. The BTC staff has considerable expertise in stewarding the land it acquires, in ecology and environmental sciences, and in assisting the land stewards by preparing management plans for the properties based on the natural features and environmental aspects of each site. Land stewards perform regular property inspections to monitor conditions and identify any ecological issues or concerns. In addition to stewardship, a trail captain is assigned to each property to monitor the condition of the trial, maintain a clear and open treadway and to note any concerns about the condition of the trial. Royal Botanical Gardens benefits from volunteers in a similar fashion. The number of Bruce Trail and Royal Botanical Gardens volunteers on the ground would contribute greatly to the implementation of volunteer park wardens to help monitor activities on the trail and educate park users on acceptable activities within the Park System.

4.3 Land Acquisition

Acquisition of land can occur either through active acquisition or the municipal land use planning process. Where lands are secured through active acquisition, there are a number of methods that could be used depending on the landowner's needs. Private landowners will be provided with educational material on land conservation options including conservation easement agreements, land purchases of all or part of a property, and information about potential landowner tax benefits. Ideally, the landowner will have a desire to permanently protect their land through donation. Otherwise key properties would be purchased where there is a willing buyer and seller. A land securement strategy can direct the actions of which landowners to approach and how. The municipal land use planning process would also see natural areas, including valley lands and hazard lands (flood plains and steep slopes), acquired for the public system through land dedication associated with a subdivision development.

Any land acquisition discussions are confidential between the landowner and land recipient. Possible recipients in this area include the Hamilton Naturalists' Club (through their Head-of-the-Lake Land Trust), Bruce Trail Conservancy and the two conservation authorities. The municipalities and Royal Botanical Gardens could also be in a position to receive lands. While all lands are important to the Cootes to Escarpment Park System, some current high-priority acquisitions include:

- 1. Large tracts of vacant land relevant to the connectivity and hydrological function of the Park System.
- 2. Lands necessary to secure the Bruce Trail corridor.
- 3. Lands with ecologically significant features (e.g. ANSI, PSW).
- 4. Lands with habitat for species at risk (as defined under the provincial Endangered Species Act).

This list of criteria will be further defined as the priorities for acquisition are detailed in a land securement strategy.



5 Land Management

This section presents the proposed inter-regional trail system for the Cootes to Escarpment Park System and possible management directions for the current park lands. Suggested policies for further consideration and actions to implement the inter-regional trail system and guide the future management of the current park lands are also described. As a guideline, this section identifies a common direction for public owners to manage the properties as a whole and collectively promote the Cootes to Escarpment Park System as a natural system that protects the biodiversity of this part of the Greenbelt while allowing for a variety of recreational opportunities that reflect the sensitivity of the natural lands. As property is brought into the public system, management will be guided by these suggested policies and the overall objectives for the Park System.

The possible future management directions, suggested policies, principles and action items described in this section were developed from a culmination of research and consultation with the steering committee and various stakeholders. The suggested policies and action items are not an inclusive list, are not listed in order of priority and will be further refined in future detailed management planning.

5.1 Trails and Natural Linkages

An inter-regional recreational hiking trail is proposed to link the Heritage Lands. This inter-regional trail is further connected to the Lake Ontario Waterfront Trail and Bruce Trail, which cross the province along Lake Ontario and Niagara Escarpment respectively. It is envisaged that this will be a primarily off-road inter-regional recreational hiking system that will follow existing trails where possible (Figure 7). Three main sections are needed to complete a loop around Cootes Paradise and north-south to the Bruce Trail. Completion of the inter-regional trail will require agreement with private landowners including McMaster University. The location of the inter-regional trail and other trails on individual park properties will be considered with more detailed management planning. Designated bicycle lanes are also of interest along road corridors such as York Road, Snake Road and Valley Road.

A potential linkage has also been identified between Waterdown-Sassafras Woods Heritage Lands and Clappison-Grindstone Heritage Lands. The location, need and feasibility of providing an east-west linkage below the Niagara Escarpment requires further consideration.

Providing access to a variety of natural habitats for people with mobility challenges is desirable. Since most of the natural lands have challenging slopes, it is suggested that the section of inter-regional trail through the Lower Grindstone Heritage Lands could potentially provide access to natural and recreational facilities for people with mobility issues.

The natural areas are fragmented by roads and other development. Roads with high traffic and urban development are barriers to species movement and dispersal, which can lead to loss of species and diversity. Six proposed key opportunities for wildlife crossings, which help facilitate movement of wildlife, are located on Figure 7. Some of these opportunities also provide locations where pedestrian crossings could be facilitated. These opportunities would be subject to the *Environmental Assessment Act* decision process if they are considered.

SIX PROPOSED WILDLIFE CROSSINGS:

(i) Cootes Drive at Spencer's Creek

This crossing is important for allowing wildlife to move to and from the Dundas Valley Conservation Area (note, Dundas Valley is not shown on Figure 7) through the Ancaster Creek Valley. The current bridge at Spencer Creek is undersized to properly allow for wildlife movement; therefore, a larger underpass (one that could facilitate a trail as well) is desirable. Numerous species (e.g. turtles) use this route as part of their life cycle. This area of Cootes Drive is also an opportunity to allow for safe pedestrian crossing along the Spencer Creek Trail. Although it does not directly link any trails at this time, many pedestrians use this area to cross Cootes Drive.

(ii) Borer's Creek at York Road

This area is a lowland valley crossing between Borer's Falls Conservation Area and Cootes Paradise. It is the most likely route for wildlife crossings because of its lowlying topography.

(iii) York Road

A wildlife crossing is desirable along York Road because of the area and length of the road. The entire stretch of York Road is used and crossed by many species of wildlife, especially deer. A location along York Road could also be a great opportunity to provide a safe crossing for pedestrians as it could provide a trail link from the RBG trails to the Hamilton Conservation Authority trails and Bruce Trail side trails.

(iv) Hickory Valley/York Road

In this area, York Road follows the valley bottom where wildlife follow this lowland topography. This provides another opportunity to allow for the safe crossing of wildlife and pedestrians.

(v) Highway 6

To reconnect the fragmented Borer's-Rock Chapel Heritage Lands and Clappison-Grindstone Heritage Lands across Highway 6, a wildlife corridor over the highway is suggested. This will not only facilitate species movement along the Niagara Escarpment and provide an above-ground route for the Bruce Trail, but will herald the Hamilton and Burlington area for its environmental leadership.

(vi) Waterdown Road

Providing for species movement and recreational connections should also be considered across Waterdown Road by the councils of the cities of Hamilton and Burlington as part of the environmental assessment process.

Two additional points offering opportunities at either end of the Park System are the King Road and King Street areas. At the Park System's western edge, the growth of South Waterdown and increased traffic on King Road will further disrupt wildlife movement and environmental health along the Niagara Escarpment which is already fragmented by heavily used parallel arterial roads (Waterdown Road and Brant Street). Recreationally, the view from the Escarpment brow in this area is one of the few vantage points providing unrestricted vistas of the region. At the eastern edge of the Park System, King Street, historically an access road to the closed Olympic Drive landfill, restricts pedestrian movement along the historic remnant of the Desjardins Canal, as well as wildlife movement (particularly nesting turtles) from Cootes Paradise to the woodlands and wetlands of Delsey Creek. This area also forms a gateway to the town of Dundas. The councils of the cities of Hamilton and Burlington may wish to consider closing or restricting through traffic on King Street and King Road at the top and bottom of the Escarpment face to provide a safe recreational route and to reconnect Delsey Creek Wetland and Waterdown Woods ESAs. Vehicle access to existing properties along King Road would continue.

5.2 Current Park Land Classification

The purpose of classifying the park lands is to identify the overall recreational function relative to protection of the natural features and functions within the Cootes to Escarpment Park System. For instance, the classification could range from "no recreation" to protect natural areas, to "active recreation" with some protection of natural areas, and would be based on the predominant characteristics of the property. The classification helps guide the preparation of future area-specific management plans (sometimes referred to as master planning), which will provide details to implement that direction. This includes specific actions, activities, and zones within or between properties based on more focused studies of baseline conditions and public discourse. During the planning process, the classification will be confirmed and changed if necessary.

5.2.1 NIAGARA ESCARPMENT PLAN

The current Niagara Escarpment Plan (Niagara Escarpment Commission, 2005) is Ontario's first environmental land use plan, which was approved by the provincial cabinet in 1985. It identifies permitted uses and outlines policies that must be met for development and when management plans are prepared for parks within the Niagara Escarpment Parks and Open Space System (NEPOSS). As the Niagara Escarpment Plan applies to most of the park lands, the NEPOSS classification has been used for the Cootes to Escarpment Park System as follows:

- Park Lands Outside the Niagara Escarpment Plan Area
 These properties are identified as "no classification" since they are not subject to the Niagara Escarpment Plan.
- 2. Park Lands Inside the Niagara Escarpment Plan Area
 - a) Park Lands Included in the Niagara Escarpment Parks and Open Space System These properties are classified using the NEPOSS classification criteria in Part 3 of the Niagara Escarpment Plan. In this area the three relevant categories are Nature Reserve, Natural Environment and Recreation. Future park planning and development on these properties will be subject to Part 3 of the Niagara Escarpment Plan.
 - b) Park Lands Outside the Niagara Escarpment Parks and Open Space System Since these properties are on the Niagara Escarpment, a NEPOSS classification is identified for these areas to reflect the existing classification system. Future planning and development on these properties would be subject to Parts 1 and 2 of the Niagara Escarpment Plan.
- 3. Park Lands Proposed for Inclusion in the Niagara Escarpment Plan Area

 A NEPOSS classification is also identified for these areas to reflect the existing
 classification system. Future planning and development on the properties will be

classification system. Future planning and development on the properties will be subject to the Niagara Escarpment Plan when it has been amended to cover these property areas.

5.2.2 PARK CLASSIFICATION

For each Heritage Lands section, Table 5 identifies the park name, owner(s) and NEPOSS classification (if applicable). This is followed by a list of the main natural features, existing facilities and a description of possible future directions. The location of each property has a unique number for reference in Table 5 and is also mapped on Figure 7. The Heritage Lands and associated natural areas are listed in Table 4.

All natural features are sensitive to human disturbance. The degree to which the habitats within these natural areas can tolerate human activity will need to be determined with management planning. An activity level is indicated for each property to reflect the level of expected use and the types of activities. It is not intended to suggest that the entire

property would be used at that level since activities may be concentrated in particular areas or restricted from sensitive areas. The actual types and locations of activities will be established when management plans are prepared. Activity levels are described in relation to other core areas of the Park System. Examples are provided below, recognizing that they may not be acceptable uses in all areas.

Low Activity Level: Primarily local pedestrian access

No direct connection with neighbourhood

Hiking primary use

Moderate Activity Level: Limited vehicle parking, possibly transit access

Adjacent to and access from urban residential neighbourhood

Interpretation, possible mountain biking, hiking trail

High Activity Level: Car and bus parking, transit access

Education facilities, frequent public programming, sports and

active recreation, paved trail system, mountain biking

Three categories of park classifications are referred to in this Strategy based on the existing NEP and NEPOSS classifications for park lands. They include Nature Reserve, Natural Environment and Recreation and are defined as follows (Niagara Escarpment Commission, 2005):

Nature Reserve

These areas represent the most significant and distinct natural areas and landforms found along the Niagara Escarpment. These areas serve to protect selected Areas of Natural and Scientific Interest. Management practices and uses in a nature reserve will ensure that the features and values for which the reserve was established remain protected in perpetuity. Access to these areas will not be widely promoted and activities will be limited to those which can further environmental understanding and education (e.g. scientific research, natural history interpretation, and nature trails or the Bruce Trail). The minimum of facilities necessary to support these activities will be provided.

Natural Environment

These lands are characterized by the variety and combination of outstanding natural features, historical resources and outstanding landscape. Natural Environment areas provide opportunities for the protection of important natural and cultural features. Activities may range from backcountry hiking in the interior of these areas to car-camping and day-use activities in the more developed or accessible areas.

Recreation

Some of the best recreational environments exist along the Niagara Escarpment. They either occur naturally or are capable of being developed to provide a wide variety of outdoor recreational opportunities in attractive Escarpment surroundings. In Recreation areas, management and development of resources is appropriate in order to provide the recreational environment and facilities required to support a wide variety of activities. These may be day-use only. Facilities for overnight camping may also be provided including campgrounds, temporary yurts and tents, lean-tos and unserviced camper's cabins.

In sections 5.3 and 5.4, principles, and suggested policies and actions with respect to overall management of the Park System are described. See section 5.4.3 for a description of access categories.

Table 4: Heritage Lands and Associated Natural Areas (Natural areas are mapped on Figure 7)

Heritage Lands	Natural Areas
Cootes Paradise Heritage Lands	 South Shore Cootes Paradise Spencer Creek Desjardins Canal Properties Dundas Recreation Lands North Shore Cootes Paradise
Borer's-Rock Chapel Heritage Lands	6. Rock Chapel7. Borer's Falls Conservation Area8. Berry Tract9. Cartwright Nature Sanctuary10. Nicholson Tract11. Community Park
Clappison Grindstone Heritage Lands	12. King City Quarry13. Clappison Woods14. Little Property15. Grindstone and School Sisters of Notre Dame16. Smokey Hollow17. Ontario Realty Corporation Property
Waterdown-Sassafras Woods Heritage Lands	18. McNally Property19. Waterdown Woods20. Kerncliff Park21. City Park22. Bayview Park and Burlington Landfill Site
Lower Grindstone Heritage Lands	23. Hidden Valley Park 24. Hendrie Valley
Burlington Heights Heritage Lands	25. Grindstone Creek Estuary26. Laking Garden, Rock Garden, High Level Bridge27. Dundurn Castle

Cootes Paradise Heritage Lands

The Cootes Paradise Heritage Lands are centred on the Cootes Paradise ESA. Including some of the original protected areas, it has historically been used for hiking, bird-watching, active recreational and educational programs. The main centres for activity will be at South Shore Cootes Paradise from Princess Point and North Shore Cootes Paradise from the Arboretum. Cultural heritage resources associated with First Nations and early European settlement offer opportunities for interpretation. The inter-regional trail will provide a route around Cootes Paradise Marsh and link with Hamilton Waterfront Trail and Bruce Trail.

1. South Shore Cootes Paradise

Royal Botanical Gardens, City of Hamilton owned and management agreement
Natural Environment - partially NE Plan Area - partially NEPOSS

MAIN FEATURES: Cootes Paradise ESA, Provincial Life Science ANSI, Provincially Significant Wetland, Important Amphibian and Reptile Area (IMPARA), largest rivermouth wetland on Lake Ontario, species at risk habitat, rare habitats. Playing fields, aviary, property trails, Hamilton Waterfront Trail and Fishway. This area has historically been part of the recreational system. Part of Greenbelt, adjacent to urban area.

POSSIBLE FUTURE DIRECTION: Focused high activity area, balanced with protected wilderness. Main activity and access centred at Princess Point. Could be considered for main area for Nodal Park functions under NEPOSS. Transit supported, parking. Inter-regional trail to follow improved existing trail and will require support of McMaster University for completion. Cootes to Escarpment Park System information and map required.

Facilities to support access to the water for non-motorized boating, including access for mobility challenged; interpretation of archeology, and aquatic and terrestrial habitats. Terrestrial habitat restoration, continued operation and interpretation of the Fishway and Cootes Paradise Marsh restoration, and trail system review required.

2. Spencer Creek

Hamilton Conservation Authority
No Classification - outside NE Plan Area

MAIN FEATURES: Spencer Creek and floodplain, part of Dundas Valley ESA, steep valley slopes. Trail. Urban location. Cootes Drive.

POSSIBLE FUTURE DIRECTION: Low activity area. Limited hiking trail. Inter-regional trail to follow existing trail, reestablishment of natural channel and floodplain connectivity.

3. Desjardins Canal Properties

City of Hamilton, Royal Botanical Gardens, Hamilton Conservation Authority No Classification - outside NE Plan Area

MAIN FEATURES: Floodplain partially within Cootes Paradise ESA, historic Desjardins Canal. Urban location.

POSSIBLE FUTURE DIRECTION: Moderate activity level with secondary level access. The Desjardins Canal Properties are at a gateway location to the historic community of Dundas. Transit supported, parking. Inter-regional trail will require support of adjacent private property owners for completion.

There is tremendous opportunity to manage the area based on the cultural history of the Desjardins Canal and settlement of Dundas as well as natural areas restoration themes. Recreational uses and/or habitat restoration to support the Cootes Paradise ESA would strengthen the Park System and the efforts to rehabilitate lands along the Desjardins Canal with the recent acquisition of flood plain lands by the Hamilton Conservation Authority.

4. Dundas Recreation Lands

City of Hamilton No Classification - outside NE Plan Area

MAIN FEATURES: Playing fields and arena. Urban location.

POSSIBLE FUTURE DIRECTION: High activity level with secondary level access. The current active recreational facilities will continue. Where feasible, additional naturalization should be considered. Transit supported, parking.

5. North Shore Cootes Paradise

Royal Botanical Gardens, City of Hamilton Natural Environment - partially NE Plan Area - partially NEPOSS

MAIN FEATURES: Cootes Paradise ESA, Provincial Life Science ANSI, Provincially Significant Wetland, Important Amphibian and Reptile Area (IMPARA), multiple small watersheds, second largest interior forest area in the park, species at risk habitat. Arboretum, Nature Interpretive Centre, Bruce Trail and property trails. This area has historically been part of the recreational system. Greenbelt, rural location.

POSSIBLE FUTURE DIRECTION: Focused high activity area balanced with protected wilderness. Main activity and access centred at Arboretum. Main area for Nodal Park functions under NEPOSS. Transit supported, parking. Inter-regional trail to follow improved existing trail with bicycle lane added to York Road. Cootes to Escarpment Park System information and map required. A new trail link following Hickory Valley to the Escarpment is proposed based on land acquisition.

Table 5 con't.

Provision of education and interpretation on the natural environment, sustainability, and the Niagara Escarpment through both the school curriculum and public programs. Explore expansion to existing facilities to accommodate increased demand for educational services. Habitat restoration and trail system review required. Part of this area includes a parcel identified as Potential Additional Park Land (Figure 6), which is just north of Old Guelph Road. This property is currently owned by the Ontario Realty Corporation and is leased to RBG.

Borer's-Rock Chapel Heritage Lands

The Borers-Rock Chapel Heritage Lands are centred on Borer's Falls-Rock Chapel ESA. It has the largest area of interior forest habitat with minimal disturbance. To protect these conditions, limited hiking opportunities will be the main focus. In keeping with this, secondary level access will be provided at Rock Chapel, Wesley Avenue and Community Park. The addition to existing core natural lands of meadow protects this diminishing habitat and provides future opportunity for natural succession to occur. An inter-regional trail could follow Hickory Brook providing a loop trail system from Cootes Paradise Heritage Lands to the Bruce Trail once public access is obtained.

6. Rock Chapel

Royal Botanical Gardens Natural Environment - NE Plan Area - NEPOSS

MAIN FEATURES: Borer's Falls-Rock Chapel ESA, Regional Life Science ANSI, cliff face of Niagara Escarpment, Escarpment face interpretation, species at risk habitat, rare habitat, interior forest. Bruce Trail and property trails. This area has historically been part of the recreational system. Part of Greenbelt, rural location.

POSSIBLE FUTURE DIRECTION: Moderate activity area with secondary level access. Parking. Cootes to Escarpment Park System information and map required. Relocation of main parking lot to the waterfalls area, with addition of a viewing platform.

Habitat restoration required. Potential access for mobility challenged to Escarpment lookout.

7. Borer's Falls Conservation Area

Hamilton Region Conservation Authority Nature Reserve - NE Plan Area - NEPOSS

MAIN FEATURES: Borer's Falls and creek valley, Borer's Falls-Rock Chapel ESA, Regional Life Science ANSI, cliff face of Niagara Escarpment, species at risk habitat, largest area of undisturbed interior forest habitat in the park. Bruce Trail and property trails. Part of Greenbelt, rural location.

POSSIBLE FUTURE DIRECTION: Low activity area. Limited parking. Hiking trails.

Focus on continuing restricted access to forest interior habitat and viewing opportunities of waterfalls and Cootes Paradise from Escarpment Brow in conjunction with Rock Chapel.

8. Berry Tract

Royal Botanical Gardens Natural Environment - NE Plan Area - NEPOSS

MAIN FEATURES: Borer's Falls-Rock Chapel ESA, species at risk habitat, Hickory and Long Valley Brook valleys. Bruce Trail and property trails. Part of Greenbelt, rural location.

POSSIBLE FUTURE DIRECTION: Low activity area limited to hiking trail. Creation of parking node at Wesley Avenue, and bicycle lane along Valley Road.

9. Cartwright Nature Sanctuary

Conservation Halton–Hamilton Naturalists' Club management agreement

Natural Environment - proposed inclusion to NE Plan Area

MAIN FEATURES: Borer's Falls-Rock Chapel ESA, species at risk habitat, Hickory Brook Valley. Part of Greenbelt and property trail, rural location.

POSSIBLE FUTURE DIRECTION: Low activity area limited to hiking trail. A new trail link following Hickory Valley to Cootes Paradise is proposed based on land acquisition.

10. Nicholson Tract

Conservation Halton

Natural Environment - proposed inclusion to NE Plan Area

MAIN FEATURES: Borer's Falls-Rock Chapel ESA. Unofficial trails. Part of Greenbelt, rural location.

POSSIBLE FUTURE DIRECTION: Low activity area. Trail system review required. Inter-regional trail to be developed and will require support of private property owners to the south for completion. Closing road allowances should be considered.

11. Community Park

City of Hamilton

Recreation - proposed inclusion to NE Plan Area

MAIN FEATURES: Community Centre. Leash-free dog area. Part of Greenbelt, rural location.

POSSIBLE FUTURE DIRECTION: Moderate activity level with secondary level access. Parking. Cootes to Escarpment Park System information and map required.

Clappison-Grindstone Heritage Lands

The Clappison-Grindstone Heritage Lands are centred on Clappison Escarpment Woods ESA and Grindstone Creek Escarpment Valley ESA north of Highway 403. These areas provide unusual forested talus slopes and deeply incised sheltered creek valley creating unique microclimates for a diversity of species. To protect these sensitive natural lands, trail use will primarily be for hiking. Main focal area for activity will be from King City Quarry, a Provincially Significant Earth Science ANSI. Additional existing natural lands and connections will complete the core Park System and be supported by a complementary system along tributaries to Grindstone Creek through the Central North Aldershot planning area. The inter-regional trail will follow the Grindstone Creek Valley linking the Bruce Trail and the Lake Ontario Waterfront Trail.

12. King City Quarry

City of Hamilton Natural Environment - in NE Plan Area

MAIN FEATURES: King City Quarry Provincial Earth Science ANSI, Bruce Trail. Stormwater Management. Part of Greenbelt, urban area.

POSSIBLE FUTURE DIRECTION: Moderate activity area providing main access to Park System. Transit supported, parking.

Since this area is not developed, a pavilion providing public restroom facilities, Cootes to Escarpment Park System information and map, and new parking area are suggested for consideration in management planning. Geology and stormwater control are possible interpretive areas.

13. Clappison Woods

Conservation Halton, City of Hamilton Natural Environment - partially NE Plan Area - partially NEPOSS

MAIN FEATURES: Clappison Escarpment Woods ESA, Regional Life Science ANSI, species at risk habitat, Escarpment face. Bruce Trail and property trails. This area has historically been used by the community for hiking and unauthorized mountain biking. Part of Greenbelt, adjacent to urban area.

POSSIBLE FUTURE DIRECTION: Moderate activity area with local access.

Habitat restoration required. Trail system review required. Future mountain bike use will be reviewed with management planning.

14. Little Property

Ontario Heritage Trust -Conservation Halton management agreement

Natural Environment - NE Plan Area - NEPOSS

MAIN FEATURES: Clappison Escarpment Woods ESA, Bruce Trail. Part of Greenbelt, rural.

POSSIBLE FUTURE DIRECTION: Low activity area.

15. Grindstone and School Sisters of Notre Dame

Conservation Halton

Natural Environment - partially NE Plan Area

- partially NEPOSS

MAIN FEATURES: Grindstone Creek Valley, Grindstone Creek Escarpment Valley ESA, Provincially Significant Life Science ANSI, steep slopes, species at risk habitat. Bruce Trail and property trails. This area has historically been used by the community for hiking and unauthorized mountain biking. Part of Greenbelt, adjacent to urban area.

POSSIBLE FUTURE DIRECTION: Low activity area with local access.

Trail system review required and new connection to proposed urban development. New access points to be determined with management planning. Inter-regional trail to be developed and will require the support of private property owners. Future mountain bike use will be reviewed with management planning.

16. Smokey Hollow

City of Hamilton

Natural Environment - NE Plan Area - NEPOSS

MAIN FEATURES: Grindstone Creek waterfalls and valley, Provincial Earth Science ANSI, Grindstone Creek Escarpment Valley ESA, Provincial Life Science ANSI, steep slopes. Bruce Trail. Part of Greenbelt, adjacent to urban area.

POSSIBLE FUTURE DIRECTION: Moderate activity area with secondary level access. Parking.

Historical and geological interpretation and waterfall viewing opportunities.

17. Ontario Realty Corporation Property

Bruce Trail Conservancy

Natural Environment - NE Plan Area - NEPOSS

MAIN FEATURES: Small part of Grindstone Creek ESA. Bruce Trail. Part of Greenbelt, adjacent to urban area.

POSSIBLE FUTURE DIRECTION: Low activity level for hiking.

Waterdown-Sassafras Woods Heritage Lands

The Waterdown-Sassafras Woods Heritage Lands are centred on Waterdown Escarpment Woods and Sassafras Woods ESAs. Sassafras Woods is a Carolinian Canada site and together with Waterdown Escarpment Woods is a Provincial Life Science Area of Natural and Scientific Interest. These Heritage Lands also include former landfill sites, which have the potential along with the future addition of rehabilitated quarry lands to expand the core natural areas as well as provide opportunities for more active recreation. City Park and Bayview Park will be the main centres for access to the Park System. The inter-regional trail and natural systems along the Niagara Escarpment would be strengthened if King Road was closed or restricted to through traffic at the Escarpment brow.

18. McNally Property

Bruce Trail Conservancy
Natural Environment - NE Plan Area - NEPOSS

MAIN FEATURES: Waterdown Woods ESA. Bruce Trail. Part of Greenbelt, adjacent to urban area.

POSSIBLE FUTURE DIRECTION: Low activity area for trail. Bruce Trail Conservancy main office. Habitat restoration required.

19. Waterdown Woods

Conservation Halton Nature Reserve - NE Plan Area - NEPOSS

MAIN FEATURES: Waterdown Woods ESA, Provincial Life Science ANSI, species at risk habitat, Escarpment face, long-term environmental monitoring (e.g. EMAN plots). Bruce Trail and property trails. This area has historically been used by the community for hiking with recent unauthorized mountain bike use. Part of Greenbelt, adjacent to urban area.

POSSIBLE FUTURE DIRECTION: Moderate activity area with secondary level access.

Trail system review required. Management planning should consider a potential trail connection from proposed future urban development as well as closing access to Bruce Trail on King Road and providing new access to Waterdown Woods/ McNally properties. Potential for roadside parking and Cootes to Escarpment Park System information and map should be considered. Potential access for mobility challenged through part of area to be considered. Habitat restoration required. Restricted access to areas for long-term environmental monitoring. Future mountain bike use will be reviewed with management planning.

20. Kerncliff Park

Conservation Halton- Burlington management agreement Natural Environment - NE Plan Area - NEPOSS

MAIN FEATURES: Waterdown Woods ESA, Old Nelson Quarry Area of Natural and Scientific Interest. Property trails. Part of Greenbelt, adjacent to urban area.

POSSIBLE FUTURE DIRECTION: Moderate activity area with secondary level access. Parking.

Interpretation of geology and natural restoration of disturbed landscapes to continue.

21. City Park

Burlington – Bruce Trail Conservancy easement over a portion

Recreation - NE Plan Area - NEPOSS

MAIN FEATURES: Southern half is part of Waterdown Woods ESA. Bruce Trail. Part of Greenbelt, adjacent to urban area.

POSSIBLE FUTURE DIRECTION: High activity area providing main access to Park System. Proposed active park facilities including sports fields, pavilion, parking — including for Bruce Trail access. Transit supported.

Restoration of natural buffer and natural areas with park development. Cootes to Escarpment Park System information and map required.

22. Bayview Park and Burlington Landfill Site

Burlington and Region of Halton No Classification - outside NE Plan Area

MAIN FEATURES: Indian Creek tributary watercourses. Former landfill site. Model airplane club, gun club, leash-free dog area. Urban location.

POSSIBLE FUTURE DIRECTION: High activity area providing main access to Park System. Transit supported, parking.

Active recreation facilities and restoration of natural areas associated with watercourses and tablelands. Cootes to Escarpment Park System information and map should be considered. Potential recreation linkage along King Road to Escarpment brow and to Grindstone Creek Valley could be considered. Potential inclusion of Region of Halton's closed Burlington Landfill Site to the west as part of recreation system and restoration of the natural system.

Lower Grindstone Heritage Lands

The Lower Grindstone Heritage Lands are centred on Grindstone Creek Escarpment Valley ESA south of Highway 403. Within this part of Grindstone Creek is the RBG-Hendrie Valley-Lambs Hollow Provincially Significant Wetland. Active recreation facilities at Hidden Valley Park will be the main access to these Heritage Lands. The inter-regional trail will follow the creek valley and provide access for those with mobility challenges to a variety of natural environments.

23. Hidden Valley Park

Burlington

No Classification - outside NE Plan Area

MAIN FEATURES: Grindstone Creek Escarpment Valley ESA. Sports fields, property trails. Stream and flood plain habitat restoration has been undertaken. Urban location.

POSSIBLE FUTURE DIRECTION: High activity area providing main access to Park System. Transit supported, parking. Cootes to Escarpment Park System information and map required.

Active recreation to continue. Inter-regional trail system and trail for mobility challenged to be implemented.

24. Hendrie Valley

Royal Botanical Gardens
No Classification - outside NE Plan Area

MAIN FEATURES: Grindstone Creek Escarpment Valley ESA, Regional Life Science ANSI, species at risk habitat, Provincially Significant Wetland, horticultural gardens, Lake Ontario Waterfront Trail, property trails. Restored floodplain, wetlands. Urban location.

POSSIBLE FUTURE DIRECTION: Moderate activity area providing secondary level access. Transit supported, parking.

Interpretation through horticultural gardens. Inter-regional trail system and trail for mobility challenged to be implemented. Habitat restoration required.

Burlington Heights Heritage Lands

The Burlington Heights Heritage Lands are centred on the geologic feature known as the Hamilton Bar, which is a bay mouth bar formed at the end of the last ice age. These lands are also part of Cootes Paradise and Grindstone Creek Escarpment Valley ESAs. Military events with early European settlement of the area and the influence of Thomas McQueston in shaping this entrance to the City of Hamilton are important cultural events associated with this area.

Dundurn Castle, High Level Bridge, Rock Garden and Laking Garden are cultural tourist features. The inter-regional trail follows the Hamilton Waterfront Trail.

25. Grindstone Creek Estuary

Royal Botanical Gardens, City of Hamilton, Burlington No Classification - outside NE Plan Area

MAIN FEATURES: Grindstone Creek estuary marsh, Cootes Paradise ESA, species at risk habitat, Important Amphibian and Reptile Area (IMPARA). Urban location.

POSSIBLE FUTURE DIRECTION: Moderate activity area with secondary level access.

Valley Inn Road is now closed and will be incorporated into the Hamilton Waterfront Trail portion of the Lake Ontario Waterfront Trail. Parking. Inter-regional trail and trail for mobility challenged to be implemented. Restricted motor boat access into Carroll's Bay marsh area. Habitat restoration required.

26. Laking Garden, Rock Garden, High Level Bridge

Royal Botanical Gardens

No Classification - outside NE Plan Area

MAIN FEATURES: Horticultural gardens and lookouts of Cootes Paradise, Carroll's Bay and Hamilton Harbour. Urban location. Hamilton Bar features prairie habitat remnants.

POSSIBLE FUTURE DIRECTION: Moderate activity area with transit-supported access linking waterfront trail, Dundurn Castle and Royal Botanical Gardens. Parking. Habitat restoration of lost prairie habitat.

Interpretation of geology, cultural history and influence of Thomas McQueston.

27. Dundurn Castle

City of Hamilton

No Classification - outside NE Plan Area

MAIN FEATURES: Dundurn Castle, national historic site. Urban location.

POSSIBLE FUTURE DIRECTION: Moderate activity area providing main access to Park System. Parking, transit supported. Cootes to Escarpment information and map required.

Interpretation of the life of Sir Allan Napier MacNab, military and architectural history to continue.

5.3 Natural and Cultural Heritage Management Suggested Policies and Actions

5.3.1 NATURAL HERITAGE

The following principles will guide the future management of the natural system.

Biodiversity: Sustain, and where suitable, restore and enhance biodiversity. The diversity of the area's natural communities and native species are unique to Ontario and Canada.

Sustainable Functions: Sustain the biological and physical functions of the natural system through strong linkages within and beyond the Park System boundaries to Hamilton Harbour and the area watersheds. This includes biological functions that depend on large tracts of forest cover and specialized plant communities.

Restoration: Enhance the terrestrial and aquatic natural systems through restoration to ensure a healthy functioning ecosystem.

Health: Monitor biological and physical conditions so that changes can be assessed and appropriate action taken recognizing that succession and evolution can occur.

SUGGESTED POLICIES FOR FURTHER CONSIDERATION

- 1. The Park System boundary includes a natural buffer to protect the natural system as well as allow for recreational activities to occur outside sensitive areas. Buffer areas will be based on the needs of the vegetation community as well as for basic management needs of the Park System, including:
 - consideration of risk from natural hazards such as damage from trees falling onto properties adjacent to the Park System;
 - adequate access to facilitate maintenance and management;
 - implementation of a trail system that is outside of habitat priority areas; and
 - limiting direct disturbance such as unauthorized encroachment and garbage dumping into natural areas. Minimum buffer widths to protect the various natural features (e.g. wetlands, forests, ANSIs, etc.) will be determined in future management planning based on those recommended by the province or conservation authorities.
- 2. Key linkages will be protected and strengthened between Cootes Paradise Heritage Lands and Borer's-Rock Chapel Heritage Lands along Borer's Creek and Hickory Brook. The linkage along Hickory Brook will be a minimum width of 200 metres, but is proposed to encompass a wider area through much of its length.
- 3. Habitat restoration of areas that contribute towards the target of 30 per cent forest cover within the Grindstone and Spencer Creek watersheds and 18 per cent in the North Shore watershed will be supported while balancing a desire for natural habitat diversity.
- 4. City of Hamilton and Region of Halton habitat restoration and habitat linkage areas identified through land use planning will be considered for inclusion within the boundary of core areas of the Cootes to Escarpment Park System.
- Habitat restoration will primarily use natural regeneration with native species and invasive species management. Managed succession may be used to assist the regeneration of degraded lands.
- 6. It is anticipated that there will be habitat priority areas identified when detailed management planning is undertaken. Habitat priority areas are locations where there is habitat for high concentrations of species at risk, important critical habitat for life functions, or is high quality, relatively undisturbed interior forest habitat. These habitat priority areas will be managed primarily for research and habitat system needs.
- 7. Trail access within habitat priority areas will be limited to research and habitat stewardship.

- 8. The natural heritage system of the Greenbelt Plan will continue to be supported.
- 9. Programs and policies that protect, enhance, and restore the biological and physical functions of the natural areas beyond the Park System boundaries will be supported and encouraged. This includes developing strong working relations with agricultural landowners, municipalities, conservation authorities and non-government organizations to undertake actions.
- 10. Incorporating and providing for wildlife passage opportunities will be considered with park management plans.
- 11. Where road upgrades are required within the Park System or new development is proposed adjacent to the Park System, effective solutions to secure linkages for wildlife movement and recreation passage will be sought.

ACTIONS

- N1 Develop and implement a comprehensive review of habitat restoration opportunities and restoration strategies, including existing and potential oak savanna and prairie habitats, and enhancing interior forest habitats.
- N2 Complete ecological land classification (ELC) to vegetation site level for the Park System to provide consistent classification for management and restoration planning purposes.
- N3 Develop a system of long-term monitoring plots across a range of habits throughout the Park System. The monitoring system could address such aspects as climate change, forest health, biodiversity, forest succession and bird populations. Data collected will be shared between network members to understand change and develop suitable actions.
- N4 Develop and implement a strategy to monitor and control invasive species.
- N5 Encourage the Province of Ontario to consider providing a wildlife corridor over Highway 6 at the Niagara Escarpment (see Section 5.1).
- N6 Encourage Burlington and Hamilton councils to consider closing or restricting King Road and King Street to through traffic and converting it to a safe bicycling and hiking route. The resulting area could provide scenic lookouts and safer access to the recreational system (see Section 5.1).
- N7 Support the City of Hamilton and Conservation Halton in working towards closing road allowances through Nicholson Tract and developing parking at Wesley Avenue.
- N8 Secure wildlife and pedestrian crossings at identified locations.

5.3.2 CULTURAL HERITAGE

Cultural heritage includes archeological sites and artifacts, landscapes, people, structures and buildings within the Park System.

SUGGESTED POLICIES FOR FURTHER CONSIDERATION

- 1. Research on archeological sites in and around Cootes Paradise will continue to be supported. Relationships with university programs will continue to be fostered.
- 2. The Niagara Escarpment provides some of the most interesting vistas and scenery. Roads such as Valley Road, Patterson Road, York Road, Snake Road and King Road are winding and in some instances heavily treed giving character and identity to the area. The cities of Hamilton and Burlington are encouraged to respect the visual and historic character of these roads if alterations are proposed.
- 3. Management plans will include an analysis of cultural landscapes, people and structures.
- 4. If roads are closed to vehicles, the road alignment and other cultural heritage features should be maintained and incorporated wherever possible into the new use as a reminder of cultural landscape.
- 5. Cultural heritage resources should be incorporated into natural heritage restoration unless it would compromise the continued viability of the natural system.

ACTIONS

- C1 Develop a cohesive interpretive program illustrating the influence of Thomas McQueston in establishing the beginnings of the Park System centred on the Burlington Heights Heritage Lands. Other interpretive opportunities will be explored under Action E1.
- C2 Carry out a viewshed study to identify views and landscapes that need to be preserved.
- C3 Promote the historical role of the Desjardins Canal in the development of the area.

5.4 Operations: Recreation, Education and Facilities Suggested Policies and Actions

The following principles will guide the future management of the recreation and education system.

Location: All facilities and human activities will be identified and located so as to produce the least amount of impact on the natural and cultural environment.

Priority: Natural habitat function will take priority over any recreational activity where impacts on the health of the ecosystem and special habitats would be adversely affected.

Accessibility: Major existing trails should form the basis of an interconnected recreational system incorporating a hierarchy of uses and access for people with mobility challenges where appropriate.

Neighbours: Recreational park activities must respect adjacent residents and local neighbourhoods.

Integration: Interpretation and education of ecological processes, sustainable living and biodiversity will be the foundation for engendering an environmental ethic in the community. The relationship of people and the natural environment over time and the resultant changes in the cultural landscape should be integrated into interpretive programs.

5.4.1 RECREATION

The recreation system is directed to secured public lands. Use of private property is not supported except by agreement of the landowner or until such time as it becomes secured public land. To this end the cooperation of adjacent property owners will be sought when management plans are prepared for both recreation and habitat protection.

SUGGESTED POLICIES FOR FURTHER CONSIDERATION

- 1. The inter-regional trail connects the core natural areas and can only be fully implemented once the lands it crosses are secured public lands. Individual park properties will have their own system of trails.
- 2. The inter-regional trail through the Park System will be developed for hiking with a minimum tread width of 1.5 metres. It will follow existing park trails where possible. Inter-regional bikeways or bike lanes are encouraged adjacent to roads such as York Road, Valley Road, Waterdown Road, Snake Road and King Road.
- 3. The inter-regional trail could include a section that is accessible for the mobility challenged through the Lower Grindstone and Burlington Heights Heritage Lands.
- 4. Management plans for the Heritage Lands will seek to coordinate trail locations, construction standards and use between public property owners.
- 5. A system of trail difficulty will be used for the entire Cootes to Escarpment Park System. This could be based on the Iroquoia Bruce Trail Club system consisting of:

a. Mostly flat and easy, good footing	1 – 2
b. Normal, some hills and poor footing	3 – 4
c. Strenuous, hilly and poor footing	5 – 6
d. Difficult, very hilly, rocky, poor footing	7 – 8
e. Most rugged, very hilly, very rocky, bad footing	9 – 10

- 6. Within habitat priority areas it will be the general policy in the long term to decrease trails on land or routes through water, particularly as habitat protection and restoration measures are implemented.
- 7. A hierarchy of trail usage, ranging from low-impact hiking to mountain biking, will be developed dependent on the sensitivity of the surrounding natural area. Mountain bike usage will be directed to areas that are less sensitive and will not negatively impact the natural environment.
- 8. Some natural lands may not be appropriate for any form of recreational use and will be identified as "protected areas" with appropriate buffers (e.g. species at risk habitat, sensitive wetland areas, steep slopes/hazard lands, etc.).
- 9. Compatible recreational activity will be based on the sensitivity of the natural lands. Both habitat sensitivity and compatible recreational activity will be established when management plans are prepared. Examples of compatible activities and supporting facilities in the Cootes to Escarpment Park System could include:

Habitat priority areas

- limited, permeable-surfaced, low-impact hiking trails for research and habitat management needs only

- no general public access permitted

Highly sensitive habitat

- permeable-surfaced, low-impact hiking trails routed along less sensitive portions or designed in a way to protect sensitive habitat (e.g. raised boardwalks for wetland areas)

Moderately sensitive habitat - permeable-surfaced multi-use trails

- seating areas

- non-motorized boats

- fishina

- boat docks

- birdwatching

Low sensitivity habitat

- hard-surfaced multi-use trails or bike trails

- sports fields

- off-leash dog runs

- picnic areas

parking facilities

- interpretation buildings

- restrooms

- paint ball

- technical bike courses

- model airplane flying

- 10. Due to the sensitivity of the natural lands, terrain, proximity to urban locations and land pattern the following activities are generally not appropriate in any area:
 - snowmobiling
 - ATVs
 - · motorized bikes
 - horseback riding
 - · motorized boats
 - camping (note, there are no Bruce Trail Overnight Rest Areas within the study area)

ACTIONS

- R1 Seek agreement of property owners for the location, design and construction of the proposed inter-regional trail.
- R2 Undertake a comprehensive study on the use of conservation authority and municipally owned Heritage Lands for mountain bike use. This study will incorporate discussions on biking on the Bruce Trail, which is generally not permitted as it is a public footpath and will consider where this activity is most appropriate. The use of bicycles in the Park System revolves around safe access and compatibility with respect to the natural environment and other recreational users. While providing a trail

system encourages a healthy lifestyle, the terrain is dissected by many steep ravine stream systems that would not be conducive to building trails for mixed use. This Strategy process has started public discussion on mountain bike use in Clappison Woods, Grindstone and Waterdown Woods properties. It is apparent that the time necessary to evaluate site conditions as well as landowner and mountain biker concerns has not been sufficient to arrive at a resolution.

- R3 Undertake a trail system review including trail inventory and closure of trails with restoration of disturbed habitats through management planning for South Shore Cootes Paradise, North Shore Cootes Paradise, Nicholson Tract, Clappison Woods and Waterdown Woods in order to validate the route for the proposed inter-regional trail.
- R4 Undertake a trail use survey to quantify the numbers of current visitors, and type and location of use throughout the year in order to properly assess impacts and needs to support the preparation of management plans.
- R5 Encourage Burlington Council to consider a potential east-west linkage below the Escarpment through Burlington trail master plan studies and management plans.
- R6 Include consideration of a safe pedestrian crossing design across Waterdown Road to protect the public and Bruce Trail Corridor in the Waterdown Master Transportation Study (see Section 5.1).
- R7 Develop a gateway node at the eastern edge of the Park System associated with the Desjardins Canal.
- R8 Develop roadside bike routes along York Road, Valley Road, King Road, Snake Road and Waterdown Road.
- R9 In cooperation with the Ministry of Transportation, install a sound barrier along the Hamilton Waterfront Trail section between Highway 403 and Cootes Paradise.

5.4.2 EDUCATION

Educational programming will bring together a continuum of environmental learning experiences from the home to more natural environments to help foster an environmental ethic. The main facility for school and public programs will continue to be provided from Royal Botanical Gardens' Nature Interpretive Centre at the Arboretum.

SUGGESTED POLICIES FOR FURTHER CONSIDERATION

- 1. Public programming providers will collaborate in the provision of programs such that efforts are not duplicated and a full range of educational opportunities are provided throughout the Park System.
- 2. Partners will collaborate on informing the public on the respectful use of Park System lands.

ACTIONS

- E1 Partners will work together to develop a series of self-interpretive programs through the Cootes to Escarpment Park System that include the themes of biodiversity, sustainable living, and cultural landscape history from First Nations trails, use and settlement through to today. The use of demonstration sites could be considered as a means to inform good stewardship practices.
- E2 Public programming providers explore and develop the use of Park System properties beyond the Nature Interpretive Centre to broaden the learning experiences provided through organized programs (school and public) and improve accessibility to program opportunities.
- E3 Continue and enhance interpretation of the Fishway and the efforts being made to restore Cootes Paradise as part of the Hamilton Harbour Remedial Action Plan.
- E4 Pursue coordinated advertising and delivery of public programs using the full range of electronic and print media available.
- E5 Seek out public transit access to the Arboretum that allows a greater proportion of the public and school groups to access nature interpretation programs.

E6 Develop a logo and reference for the Cootes to Escarpment Park System and include on signage and information to promote the area as a whole. In addition, any signage will be created in coordination with other partner agencies (e.g. Greenbelt, NEC) to avoid confusion or duplication.

5.4.3 FACILITIES

Facilities include interpretive centres, supporting buildings, parking and public transit, and other structures, except trails, which are covered under recreation. Various types of access points to these facilities are described below and in Table 5 as well as Figure 7.

SUGGESTED POLICIES FOR FURTHER CONSIDERATION

- 1. All facilities will be sited to limit intrusion and impact on natural area features and functions. Suitable landscaped buffers to the natural area will be provided.
- 2. "Green" building and site standards, such as LEED, will be incorporated into the design of new facilities.
- Main access areas will include parking, public transit, access for mobility challenged to at least parts of that park, washroom facilities, and interpretive and trail orientation information.
- 4. Secondary access will include parking and will possibly include public transit, interpretive and trail orientation information, and access for people with limited mobility.
- 5. A number of minor access points provide entry into the Park System for neighbouring residents. Parking is limited to less than five spots, where provided. To limit on-street parking in these areas, the road in the immediate area of the trailhead may need to be signed and enforced for "no parking." Some existing small parking areas have been identified as local access as these are not intended to be expanded.

ACTIONS

- F1 Redevelop the Nature Interpretive Centre at Royal Botanical Gardens to meet the needs of the community for nature and sustainable educational opportunities for schools, the public and interest groups. Designs should explore the use of solar and geothermal energy, and enhanced sewage treatment systems to exemplify sustainable living practices.
- F2 Enhance authorized routes to access waterfalls along the Grindstone Creek and Borer's Creek to encourage and support tourism objectives of the cities of Hamilton and Burlington.
- F3 Develop the King City Quarry access area, including parking and Cootes to Escarpment Park System information. A pavilion with at least a restroom should be considered.
- F4 Design and install property entrance signage for the Cootes to Escarpment Park System.
- F5 Install "no parking signs" on Snake Road with allowance for a small area of parking at the Bruce Trail crossing and explore alternative parking and trail connection with the Catholic Cemeteries.
- F6 Provide minor access to Grindstone property (owned by Conservation Halton) for local pedestrian use. No parking or vehicle access will be provided. Location(s) will be determined in conjunction with development approvals.
- F7 Explore and provide public transportation service to identified parts of the Park System.

5.5 Management Plans

Management plans will be required to define specific actions, activities and zones within or between properties based on more focused studies of baseline conditions and opportunities to engage the public and neighbours. These should be prepared to include ecosystem management, cultural heritage management, recreation, education and enforcement for combinations of properties where appropriate. The preparation of the

management plans will be guided by the suggested policies in this Strategy and balance the desire for recreation with the desire for conservation. Where the Niagara Escarpment Plan applies, the preparation of management plans will need to conform to the plan's policies and will include park zones with permitted uses. The NEPOSS Planning Manual (Ontario Ministry of Natural Resources, 2008) will provide guidance on the development of park management plans and the process will occur in consultation with MNR and NEC. The following management plans will need to be completed:

ACTION: P1

Cootes Paradise Heritage Lands

- · Desjardins Canal Properties
- · South Shore Cootes Paradise
- · North Shore Cootes Paradise

Borer's-Rock Chapel Heritage Lands

- Borers-Rock Chapel Heritage Lands east of Valley Road
- Borers-Rock Chapel Heritage Lands west of Valley Road

Clappison-Grindstone Heritage Lands

- Clappison-Grindstone Heritage Lands west of Snake Road
- Clappison-Grindstone Heritage Lands east of Snake Road

Waterdown-Sassafras Woods Heritage Lands

· Waterdown-Sassafras Woods Heritage Lands

Lower Grindstone Heritage Lands

• Lower Grindstone Heritage Lands

Burlington Heights Heritage Lands

• Burlington Heights Heritage Lands

6 Park System Management Governance

6.1 Cootes to Escarpment Park System Management Network

The Cootes to Escarpment Park System is not only a network of natural lands with a recreational system, but a network of public agencies, non-profit organizations and landowners with a significant interest in managing the area for its continued contribution to the health of the watersheds and people inhabiting the area. This network includes Hamilton Conservation Authority, Conservation Halton, Royal Botanical Gardens, Hamilton Naturalists' Club, Bruce Trail Conservancy, City of Hamilton, City of Burlington, Region of Halton and Hamilton Harbour Remedial Action Plan. These organizations, and other potential groups and owners, all have an integral role to play in implementing this Strategy.

There has been considerable discussion on future implementation of the Strategy and the management structure that would carry it out. Tied to this is the notion of a higher level of government owning or operating these lands. Since the early 1900s, there has been a long-time local commitment from the efforts sought by the Hamilton Board of Park Management and Hamilton Bird Protection Society (now Hamilton Naturalists' Club) to protect the natural lands associated with Cootes Paradise Marsh. The importance of this special rural landscape has been carried forward to the provincial level through the Greenbelt Plan.

There is still a need for discussions and negotiations between potential Park System partners to identify appropriate management and funding mechanisms that are unique to the broad community and the Cootes to Escarpment Park System. Collaboration and a strong implementation plan are key objectives that form the basis of the proposed management structure.

A new corporate body composed of many organizations may be a long-term result of discussions on management structure. This could include representatives from institutions such as Catholic Cemeteries, individual landowners, business corporations, upper levels of government and local interest groups. The confirmed management organization will constitute themselves as the Cootes to Escarpment Park System Management Network.

Independent of the naming or structure of this group, in order to begin implementation of this Strategy, several immediate action items have been identified for the Cootes to Escarpment Management Committee.

ACTIONS

- M1 Upon completion of this Strategy, the cities of Hamilton and Burlington, Region of Halton, Conservation Halton, Hamilton Conservation Authority, Royal Botanical Gardens, Bruce Trail Conservancy and Hamilton Naturalists' Club and Hamilton Harbour Remedial Action Plan will seek, from their respective boards/councils, endorsement of this document and to form the Cootes to Escarpment Park System Management Committee.
- M2 The Cootes to Escarpment Park System Management Committee would meet regularly to guide the actions identified in the plan and continue to refine the management structure and funding. The committee partners would report annually on progress and include project implementation reports on partner websites. The project website could continue to be maintained by Royal Botanical Gardens.
- M3 Develop a land securement strategy.
- M4 Develop a marketing and communications plan.
- M5 Confirm a management structure and secure funding to support operations and programming.
- M6 Prepare and update work plans as part of normal operations.



M7 Assist in the organization of a National Symposium on Sustainable Natural Areas in 2010. The purpose of the event is to engage a wide cross-section of participants and experts in discussing how to protect, restore and utilize natural areas and ecosystems. The Cootes to Escarpment Park System and surrounding areas will be one of the focal points of the symposium.

6.2 Partnerships

Two types of partnerships will need to be forged to have a successful Cootes to Escarpment Park System. The first includes partners to broaden implementation of Strategy objectives and the second includes involvement of upper tiers of government.

1. Partners to Broaden Implementation of Strategy Objectives In order to broaden implementation of the Cootes to Escarpment Park System, partners could include public utilities, school boards, institutions, corporations and private landowners with large landholdings either inside or outside the park boundary. This would serve to implement Park System objectives outside the core natural lands or where public ownership has not been achieved. A voluntary system to achieve public access and natural lands stewardship could be established. This will also serve to raise the profile of the Cootes to Escarpment Park System.

Establishing a Friends of Cootes to Escarpment Park System could involve the public in management of both public and private natural lands. The stakeholder advisory group members and other participants that assisted in the development of this Strategy could form the beginning of this friends group. Activities could include implementing stewardship actions, lobbying for protection, and assisting with park maintenance and operations.

2. Partners Involving Higher Levels of Government

The Province of Ontario encourages creation of a public open space system through the Greenbelt. The Niagara Escarpment is a UNESCO World Biosphere Reserve, which helps raise the value of this area to an international level. Involvement of the province through Ontario Realty Corporation, the Niagara Escarpment Commission and Ontario Parks should be part of implementing this Strategy. Endowment funding opportunities should be sought from the Province of Ontario, federal government and like-minded environmental organizations to support long-term implementation of the Cootes to Escarpment Park System. These organizations will need to be pursued for active involvement and support as part of the Cootes to Escarpment Park System Management Committee work plan.

7 Implementation Actions

Implementation actions will be directed by the Cootes to Escarpment Park System Management Committee until the network is established. Costs for implementing actions will be established with yearly work plans.

On-going Actions

Code	Action	Lead	
M2	Report on progress	Management Committee	
M5	Secure funding	Management Committee	
M6	Prepare yearly work plans	Management Committee	

2010 to 2015 Actions

Code	Action	Lead	2010	2011	2012	2013	2014	2015
M1	Seek endorsement of Strategy from boards and councils. Establish interim management committee	All Partners						
M5	Confirm a management structure and staffing for Management Network	Management Committee						
C2	Undertake viewshed study	Burlington and Hamilton						
M3	Develop a land securement strategy	Management Committee						
M7	Assist in the organization of a National Symposium on Sustainable Natural Areas	Management Committee						
E6	Produce Park System logo	Management Committee						
R4	Undertake a trails survey to quantify number and types of users	Management Committee						
R2	Complete a mountain bike use strategy	Management Committee						
R7	Develop a gateway node at the eastern edge of the Park System associated with the Desjardins Canal.	Hamilton and Hamilton Conservation Authority						
N2	Complete ELC work for current public lands	Conservation Authorities						
P1	Develop identified management plans	Individual Property Owners						
C3	Promote the historical role of the Desjardins Canal in the development of the area	All Partners						
M4	Develop a communications and marketing plan	Management Committee						
N3	Develop a system of long-term monitoring plots throughout the Park System	Conservation Authorities						
N4	Develop and implement a strategy to monitor and control invasive species	RBG and Conservation Authorities						
R8	Develop roadside bicycle routes along York Road, Valley Road, King Road, Snake Road and Waterdown Road	Burlington and Hamilton						

2016-2021 Actions

Code	Action	Lead	
N1	Develop and implement a comprehensive review of habitat restoration opportunities and restoration strategies	Conservation Authorities	
N6	Close or restrict King Road and King Street to through traffic and develop for trail use	Burlington and Hamilton	
N7	Close road allowances within Nicholson Tract and develop trailhead parking	Conservation Halton	
N8	Secure wildlife and pedestrian crossings at identified areas	Hamilton	
C1	Develop interpretive program illustrating the influence of Thomas McQueston	Royal Botanical Gardens and Hamilton	
E1	Develop a series of self-interpretive programs through the Park System	Royal Botanical Gardens and Conservation Authorities	
E2	Explore expansion of organized programs beyond RBG	Royal Botanical Gardens and Conservation Authorities	
E3	Continue and enhance interpretation of the Fishway and the efforts being made to restore Cootes Paradise as part of the Hamilton Harbour Remedial Action Plan	Royal Botanical Gardens	
E4	Pursue coordinated advertising for public programs	Management Committee	
R1	Implement inter-regional trail	Management Committee	
R3	Develop through management planning, a trail system review including closure of trails with restoration of disturbed habitats	Individual Property Owners	
R9	In cooperation with the Ministry of Transportation install a sound barrier along the Hamilton waterfront trail section between Hwy 403 and Cootes Paradise.	Hamilton	
F1	Redevelop the Nature Interpretive Centre at Royal Botanical Gardens	Royal Botanical Gardens	
F2	Enhance access to waterfalls along Grindstone Creek and Borer's Creek	Conservation Halton and RBC	
F3	Develop the King City Quarry node	Hamilton	
F4	Design and install Park System area entrance signage	Management Committee	
F5	Install "No Parking" signs on Snake Road and explore alternative parking and trail connection with Catholic cemeteries	Burlington	
F7, E5	Explore and provide public transportation service to identified parts of the Park System including the Nature Interpretive Centre for school groups	Burlington and Hamilton	

Additional Actions

Code	Action	Lead
N5	Consider providing a wildlife corridor over Highway 6	Ministry of Transportation
R5	Assess a potential east-west linkage through trail master plan studies and management plans	Burlington
R6	Consider including a safe pedestrian crossing across Waterdown Road to protect the public and Bruce Trail corridor in the Waterdown Master Transportation Study	Burlington and Hamilton
F6	Determine local minor access to Grindstone property in conjunction with development approvals	Burlington

8 Strategy Review and Amendment

Work plans will be prepared and progress will be reported annually. After 10 years, a public review of the Strategy will be undertaken and amended as necessary.

9 Conclusion

From an ecosystem perspective, the Cootes to Escarpment Park System is built on providing large connected habitat areas. This is considered one of the best means of sustaining plant and wildlife populations over time. From a recreational perspective, the Park System is built on focusing activity at main areas and managing each area to provide specific recreational experiences within this Park System. Together, the Cootes to Escarpment Park System captures the essence of the Greenbelt Plan to enhance our overall quality of life through protection and restoration of natural areas and connections as well as providing recreational opportunities. The unique ecological corridor that is the foundation of this Park System is the only contiguous habitat connection between the Niagara Escarpment and Lake Ontario and includes some of Canada's most botanically rich properties. This Strategy proposes a future system of protected and connected spaces to ensure the ecological health and integrity of these natural lands will continue through cooperative actions of both public and private landowners.

This Strategy is the first step in defining the vision for the future establishment and protection of the Cootes to Escarpment Park System. The next steps will require endorsement of this Strategy by the boards and councils of the partners and formation of the Cootes to Escarpment Park System Management Network. This Strategy outlines for the management network a series of suggested policies, actions, and possible future directions for the management of current public park lands and to secure the Park System. In the first six years, key actions for the management network include establishing funding and staffing to carry out foundation activities, such as developing a land securement strategy, a communications plan and a series of more detailed management plans for sections of the Cootes to Escarpment Park System. The subsequent five years will see implementation of management plans and actions to bring the Cootes to Escarpment Park System to life. Carrying this Strategy forward will give permanent protection to the natural heritage systems and provide for a wide range of publicly accessible spaces for recreation as envisaged by the province as well as local governments and agencies.



10 Definitions and Acronyms

Active recreation: A mix of uses in a neighborhood park that may include the following facilities or facility types: athletic fields, building or structures for recreational activities, concession, community garden, courses or courts, children's play area, dog play area or a bike path.

ANSI: Area of Natural and Scientific Interest

Biodiversity: The variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part; this includes diversity within species, between species and of ecosystems (Ontario Ministry of Natural Resources, 2005).

Carolinian Canada Site: In 1984, 38 sites were identified as critical natural areas in a study by the identification sub-committee of Carolinian Canada. These sites total 16,511 hectares (40,800 acres). Since 1984, conservation efforts in Carolinian Canada have been directed towards securing these sites through a number of mechanisms that include purchase, municipal designation, landowner contact and private stewardship, and education and public awareness.

Heritage Lands: The term used to describe both the natural and cultural components of the Cootes to Escarpment Park System. Six Heritage Lands areas that are the focus for future management planning:

- 1. Cootes Paradise Heritage Lands;
- 2. Borers-Rock Chapel Heritage Lands
- 3. Clappison-Grindstone Heritage Lands
- 4. Waterdown-Sassafras Woods Heritage Lands
- 5. Lower Grindstone Heritage Lands
- 6. Burlington Heights Heritage Lands

IMPARA: Important Amphibian and Reptile Area

Land pattern: The pattern created by lot size and roads across the landscape.

Natural lands/natural areas: Includes terrestrial and aquatic habitats.

NE: Niagara Escarpment

NEPOSS: Niagara Escarpment Parks and Open Space System. Includes over 130 existing and proposed parks and open spaces on publicly owned lands on the Escarpment and Bruce Trail. Lands in the NEPOSS are subject to the policies in Part 3 of the Niagara Escarpment Plan.

Node: For the purposes of this Strategy a node is a place of concentration of activity and a place of access.

Nodal Park: Focal areas selected to serve segments of the Escarpment recognizing its overall diverse environments and regional differences. Administratively, Nodal Parks perform the function of visitor reception and information dissemination concerning park and open space activities, points of interest, and attractions surrounding Escarpment areas and communities. Part 3.2.1 of the NEP lists four elements of Nodal Park programs: orientation, education, interpretation and recreation.

Park: Includes natural areas used for recreation, active recreation parks, open space, conservation areas and nature sanctuaries.

Public lands: Includes lands of municipalities, conservation authorities and non-profit land trusts.

Secured public lands: Includes lands secured by legal ownership or easement thereby potentially available for public access. In the case of easement, the entire property may not be accessible for public access.

Species at risk: Plant or animal species at risk of disappearing from the province or Canada depending on whether it is a status identified provincially or federally.

UNESCO: United Nations Educational, Scientific and Cultural Organization. UNESCO World Biosphere Reserves are sites recognized under the Man and the Biosphere Program, which innovate and demonstrate approaches to conservation and sustainable development. There are 553 sites worldwide in 107 countries.

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