### **Table of Contents**

## Waterdown - Sassafras Woods Heritage Lands Management Plan - August 2016

1.0	Introduction	2
1.1	Study Background	2
1.2	Management Plan Purpose and Process	5
1.3	Project Governance and Project Team	6
2.0	Characterization of the Waterdown-Sassafras Woods Heritage Lands	6
2.1	General Overview	7
2.2	Planning Policy and Regulatory Framework	7
2.3	Recreation	8
2.4	Natural Heritage	10
2	.4.1 Physiography and Surface Geology	10
2	.4.2 Surface Water	11
	.4.3 Vegetation Communities	11
	.4.4 Flora	13
2	.4.5 Fauna	14
	.4.6 Natural Heritage Corridors	14
2	.4.7 Natural Heritage Summary	14
2.5	Cultural Heritage	18
3.0	Management Issues	19
3.1	Overarching Issues and Opportunities	19
	Consistent Delineation of Cootes to Escarpment EcoPark System (3)	19
	Delineation of Current EcoPark System Boundaries (4)	19
	Lack of Uniform Set of Rules for EcoPark System (5)	19
	Accommodating Stresses from Future Development (6)	20
	Funding (8)	21
3.2	Access and Infrastructure	21
	Lack of Adequate/Appropriate Parking and Access (12)	21
	Relative Isolation of some Current EcoPark System Lands (13)	21
	Trespassing (14)	22
3.3	Recreation	22
	Duplication and Density of Trails (16)	22
	Signage (17)	22
	Overuse and Erosion of Trails (18)	22
	Unsanctioned Structures and Trail Improvements (19)	23
	Trails (21)	23
	"Islands" of Permitted Bike Use (15 and 21)	23
	User Conflicts (22)	23
	Off-leash Dogs (23)	23
	Non-permitted Uses (24)	24
	Safety Concerns Associated with Non-permitted Uses (25)	24
3.4	Encroachments	24
	Personal Trails (26)	24
	Structures and "Yard Extension" (26)	24
	Dumping (26)	24
	Vegetation Removal (26)	24
	Cats/Domestic Pets (26)	25

3.5	Hydrologic Impacts	25
	Run-off, Peak Flows and Hydrological Changes (27)	25
	Drainage, Erosion and Stormwater Management (28)	25
	Water Quality Impacts	26
	Water Quantity Impacts	26
	Polluting Spills (29)	27
3.6	Ecosystem Management and Restoration	27
	Forest Health Decline (30)	27
	Loss of Open Woodland Habitat (30)	27
	Management of Species at Risk and Rare Species Habitat (32)	28
	On-line Ponds (33)	28
	Karst (34)	28
	Invasive Species Management (35)	28
	Noxious Plants (36)	29
	Wildlife Crossing (37)	29
4.0	Heritage Lands Management Recommendations	31
4.1	Approach to Management Recommendations	31
4.	.1.1 Classification and Zoning of the Heritage Lands per NEPOSS	32
	1. Classification of the Heritage Lands	32
	2. Zoning of the Heritage Lands	33
	.1.2 Preferred Use Approach	38
4.2	Overarching Management Recommendations	38
	3. Consistent Delineation of Cootes to Escarpment EcoPark System	39
	4. Delineation of Current EcoPark System Boundaries	39
	5. Lack of Uniform Set of Rules for EcoPark System	39
	6. Accommodating Stresses from Future Development	39
	7. EcoPark System-wide Guidelines	40
4.0	8. Funding	41
4.3	Waterdown-Sassafras Woods Heritage Lands Management Plan Recommendations	41
4.	.3.1 Vision	41
4	9. Develop Vision	41
4.	.3.2 Recommended Management Directions	42
	10. Permitted Uses per NEPOSS Classification	42
1	11. Permitted Uses per NEPOSS Zone	44
4.	.3.3 Access and Infrastructure Recommendations	47 47
	12. Lack of Adequate/Appropriate Parking and Access	
	13. Relative Isolation of some Current EcoPark System Lands	47 47
1	14. Trespassing .3.4 Recreation Recommendations	47
4.	15. General Trail Recommendations	48
	16. Duplication and Density of Trails	48
	17. Signage	49
	18. Overuse and Erosion of Trails	49
	19. Unsanctioned Structures and Trail Improvements	50
	20. Interpretation and Education	50
	21. Trails	51
	22. User Conflicts	51
		91

# Appendix B Report PW16-017 Page 3 of 5

	23. Off-leash Dogs	52
	24. Non-permitted Uses	52
	25. Safety Concerns Associated with Non-permitted Uses	52
4	.3.5 Recommendations for Encroachment	52
	26. Impacts from Adjacent Use	52
4	.3.6 Recommendations for Hydrologic Impacts	53
	27. Run-off, Peak Flows and Hydrological Changes	53
	28. Drainage, Erosion and Stormwater Management	53
	29. Polluting Spills	54
4	.3.7 Ecosystem Management and Restoration Recommendations	54
	30. Forest Health Decline and Loss of Open Woodland Habitat	54
	31. Vegetation Restoration and Management Recommendations	55
	32. Management of Species at Risk and Rare Species Habitat	55
	33. On-line Ponds	56
	34. Karst	56
	35. Invasive Species Management	56
	36. Noxious Plants	57
	37. Wildlife Crossing	57
4	.3.8 Cultural Heritage Recommendations	57
	38. Cultural Heritage Conservation	57
5.0	Implementation	58
5.1	High Priority Management Tasks	62
5.2	EcoPark System Guidelines	63
5.3	Site-specific Management Tasks	64
	Natural Resource Management Actions (Management Themes 24, 30, and 31)	64
	Erosion Management Action (Management Theme 28)	65
	On-line Ponds in Tyandaga Golf Course (Management Theme 33)	65
6.0	Management Plan Monitoring Evaluation	65
6.1	Monitoring the Implementation of Recommendations	66
	39. Review and Refine Schedule for Monitoring Management Themes	66
6.2	Guidance for Performance Indicators	68
6	.2.1 Adaptive Management	68
7.0	References	77

### **List of Tables**

Table 1. Vegetation Communities of Current EcoPark System Lands in the Waterdown-Sassafras Woods Heritage Lands
List of Figures
Figure 1. Cootes to Escarpment EcoPark System Study Area
List of Appendices
Appendix 1: Waterdown-Sassafras Woods Heritage Lands Land Classification and Zoning Report

#### **EXECUTIVE SUMMARY**

The purpose of this Management Plan for the Waterdown-Sassafras Woods Heritage Lands is to develop a set of management directions for the Current EcoPark System Lands owned by Conservation Halton, City of Burlington, Halton Region and the Bruce Trail Conservancy. This Management Plan will inform the protection, enhancement and communication of the important natural and cultural features within the Waterdown-Sassafras Woods Heritage Lands, one of the six core natural areas within the Cootes to Escarpment EcoPark System. This Management Plan is a compilation of detailed information about the Waterdown-Sassafras Woods Heritage Lands and the articulation of the partner agencies' joint vision for the holistic management of their lands. It provides a framework for future planning and implementation actions at the individual site level.

Development of this Management Plan involved community consultation to identify priorities and concerns as well as compilation of information on the recreational, natural and cultural resources of the Heritage Lands (detailed in the Inventory, Opportunities and Issues report prepared for the Waterdown-Sassafras Woods Heritage Lands, under separate cover). This Management Plan was also developed using the Niagara Escarpment Parks and Open Space System planning framework to identify classifications and zones (detailed in the Classification and Zoning report prepared for the Waterdown-Sassafras Woods Heritage Lands, Appendix 1 of this Management Plan).

This Management Plan contains a summary of the background and context of the Waterdown-Sassafras Woods Heritage Lands area followed by a summary of significance. Further detailed information can be found in the Inventory, Opportunities and Issues Report (North-South Environmental et al. 2016). Section 3.0 discusses issues and opportunities. Section 4.0 summarizes the management recommendations for the Heritage Lands, including the classification and zoning of the Heritage Lands, followed by implementation recommendations in Section 5.0 and monitoring recommendations in Section 6.0.

This Management Plan recommends several actions for consideration for future management of the Waterdown-Sassafras Woods Heritage Lands. The recommendations are organized in three categories:

- Approach to Management Recommendations;
- Overarching Management Recommendations; and
- Waterdown-Sassafras Woods Heritage Lands Management Recommendations.

Implementation of the recommended management actions is organized under high priority management tasks; recommended EcoPark System Guidelines for trails, education and signage, vegetation management, and edge management; and site-specific management tasks. Following the outline for implementation of the recommended management actions, monitoring and evaluation of Management Plan implementation is reviewed.