

East Escarpment Conservation Area

Watershed Restoration Program

Program Overview

Hamilton Conservation Authority
Watershed Planning & Engineering
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Introduction

The Upper Stoney Creek and Upper Battlefield Creek watersheds are located in the east end of the Hamilton Conservation Authority (HCA) watershed above the Niagara Escarpment. This area is comprised of agricultural uses, residential uses, fallow lands and remnant natural heritage features (wetlands, forest areas and watercourses).

The Stoney Creek watershed from source to Lake Ontario has an area of 2,070 hectares (5,116 acres) and of that area, 1,619 hectares (4,000 acres) is located above the Niagara Escarpment. Battlefield Creek has a total area of 784 hectares (1,936 acres) with 500 hectares (1,236 acres) of this area located above the Niagara Escarpment. The total area of both watersheds above the Niagara Escarpment is 2,119 hectares (5,236 acres). The HCA does own land in this area associated with the Devil's Punch Bowl and the Vinemount Swamp and these lands total approximately 69 hectares (171 acres). This represents 3% of the total land area located above the Niagara Escarpment. The Stoney Creek and Battlefield Creek watershed located above the Niagara Escarpment are shown as Figure 1.

Historically, the HCA has completed technical studies in this area pertaining to floodplain information and in the 1970's consideration was given and reports completed in support of the construction of reservoirs in this area to address downstream flooding concerns. While these studies were completed, the program was not implemented and the reservoirs were never constructed.

From a land use perspective, the majority of the Stoney Creek and Battlefield Creek watersheds above the Niagara Escarpment is covered by the City of Hamilton Rural Official Plan. Small portions of both watersheds are located within the Urban Boundary of the city and are therefore covered in the City of Hamilton Urban Official Plan. Planning policies from the Greenbelt Plan including the Niagara Escarpment Plan affect a large portion of the upper watersheds. Specific policy relating to the Protected Countryside and the Natural Heritage System relates to this area.

The land area above the Niagara Escarpment represents an opportunity to create a new conservation area within the jurisdictional boundaries of the Hamilton Conservation Authority. These lands include floodplains and their watercourses, forested lands and wetlands. Within the new conservation area, there will be opportunities to restore natural heritage features and to create new wetland and forested areas and to provide passive recreational activities. The purpose of this program overview is to highlight the opportunities available in this area from the natural hazard and natural heritage perspective and to identify project staging.

Program Goal and Objectives

The lands as illustrated in Figure 1 comprise a range of uses including agricultural, residential, fallow lands and remnant natural heritage features (wetlands, forest areas

and watercourses). These existing conditions in the upper watershed areas of both Battlefield and Stoney Creeks provide the potential for conservation, enhancement and restoration of these existing natural heritage features. Based on this, the following is the Goal and Objectives for this program.

Goal

To create a new conservation area in the east end of the City of Hamilton, specifically the Upper Stoney Creek and Upper Battlefield Creek watersheds above the Niagara Escarpment to provide natural hazard attenuation, natural heritage enhancements and recreation opportunities.

Objectives

To utilize the floodplain areas of Upper Battlefield and Upper Stoney Creeks to retain water to provide flood attenuation both above and below the Niagara Escarpment within these watershed areas.

To enhance and enlarge existing wetland areas and to create new wetland areas to provide enhanced wetland hydrologic function to reduce the impacts of high water events and provide water to area watercourses during low flow periods.

To restore the natural features and functions of the watercourses in the area.

To restore, enhance and enlarge the natural heritage features associated with the floodplains, wetlands and watercourses of the area.

To provide linkages within and between conservation area lands by utilizing the DoFasco Trail

To enhance and create passive recreational opportunities along the DoFasco Trail.

Program Study Area

The Program Study Area comprises the Stoney Creek and Battlefield Creek watersheds located above the Niagara Escarpment as illustrated on Figure 1.

Project Staging and Timing

The project is divided into 3 stages and the detail and timing for each stage is as follows:

Stage 1 – Consolidation of Core Conservation Area

This first stage involves securing lands immediately adjacent and contiguous to the existing Devil's Punch Bowl Conservation Area. This will provide for a larger

core conservation area with lands containing both Stoney Creek and Battlefield Creek. The core area provides the Hamilton Conservation Authority presence in this area and provides opportunities for initial restoration work and passive recreation opportunities.

Funding for Stage 1 land acquisition has been secured in the amount of \$4.75 million over a 5 year period beginning in 2015. Land acquisition will always be on a willing buyer/willing seller basis. This funding has been made available from the Heritage Green Community Trust, the City of Hamilton, the Hamilton Conservation Authority and the Hamilton Conservation Foundation.

Stage 2 – Natural Heritage Conservation and Restoration

This stage involves continuing to secure lands as required and to complete studies, complete restoration design for wetlands, creek restoration and reforestation and to implement the completed design and restoration plans. The timing for this work is dependent on funding and securing partners and will commence upon securing funding.

Stage 3 – Natural Hazard Attenuation

This stage involves the completion of required studies to determine how natural hazards (flooding and low flow augmentation) can be addressed through creek restoration, wetland restoration and through holding water on the landscape during storm and runoff events as examples. Securing the required lands for these features will be dependent on the recommendations of the required studies. The timing for this work is dependent on funding and securing partners and will commence upon securing funding.

It is noted that stewardship will be an integral component of all stages of this project as it relates to land owner contact for land securement, restoration, and public and private stewardship opportunities.

Planning/Technical Documents

Technical studies will be required to facilitate the natural heritage restoration and the natural hazard attenuation envisioned in this project. Studies such as a Hydrology, Hydrogeology, Water Budget and Natural Heritage may be required at various levels of detail to identify lands to be acquired, design requirements and construction. As noted, the specifics for this work will be determined through Stage 2 and Stage 3 or this project. It is noted that past work in this watershed has been completed and should be used as a resource for future work. The following two studies are specifically noted:

- Upper Stoney Creek & Battlefield Creek Flood Line Mapping Study – Dillon, 1976
- Stoney Creek & Battlefield Creek Flood & Erosion Control Class EA – 2007-2012

The development of the East Escarpment Conservation Area will need to comply with the requirements of the City of Hamilton Urban and Rural Official Plans and the Province of Ontario's Greenbelt Plan. It is not envisioned that municipal planning approvals will be required for the land securement, conservation and restoration of lands as proposed in this project.

In relation to the Greenbelt Plan, the project serves to implement the policy direction of the Greenbelt Plan as it is proposed to build on the areas natural and hydrologic features and function by conserving and restoring the areas watercourses, wetlands and forested lands and to expand these features as identified in the noted studies to be completed. The project also serves to strengthen the natural heritage and hydrologic connections between the Vinemount Swamp, Stoney Creek, Battlefield Creek and their associated ravine features to the Niagara Escarpment. The Greenbelt Plan Natural Heritage System comprises the northern area of the Stoney Creek Watershed while the majority of the remaining lands of both the Stoney Creek and Battlefield Creek Watersheds are located in the Protected Countryside.

Land Securement

Land acquisition is a key component of all stages of this project and land acquisition funding is secured for Stage 1 of this project. A Property Acquisition Team has been established to review and direct land acquisition in Stage 1 of this project. Due to the sensitivities in identifying specific lands for acquisition, this Program Overview does not identify lands to be acquired. HCA staff working with the Property Acquisition Team will identify lands for acquisition based on the following set of priorities with negotiation for purchase undertaken by the HCA on a willing buyer/willing seller basis:

- Establishment of Core Conservation Area
- Securement of Key Natural Hazard/Natural Heritage Features
 - Floodplain
 - Wetland
 - Significant Woodlands
 - Environmentally Significant Areas
 - Lands adjacent/contiguous with the above noted features
- Lands as identified in the completed Technical studies

The Hamilton Conservation Authority, subsequent to Board of Director's Approval, will submit this Program Overview to the Minister of Natural Resources and Forestry to obtain approval for this project under Section 24 of the Conservation Authorities Act. In obtaining the Minister's approval, HCA staff can negotiate partial land acquisitions from landowners without the need for consent/severance pursuant to Section 50 of the Ontario Planning Act.

Conclusion

The purpose of this program overview has been to highlight the opportunities available in this area from the natural hazard and natural heritage perspective and to identify project staging. The first and paramount stage is to secure the lands required to establish the core and contiguous conservation area lands associated with the Devil's Punch Bowl Conservation Area. This will be accomplished by working with the Property Acquisition Team and our Funding Partners. Additional and more detailed work is to be completed pursuant to the work and funding required in Stage 2 and 3 of this Project.