

CONSERVATION ADVISORY BOARD MEETING AGENDA

THURSDAY, FEBRUARY 14, 2019

Vision

A healthy watershed for everyone.

Mission

To lead in the conservation of our watershed and connect people to nature.



A Healthy Watershed for Everyone

**Snowy River Bend
Dundas Valley Conservation Area**

NOTICE OF MEETING

CONSERVATION ADVISORY BOARD

Thursday, February 14, 2019

4:00 p.m.

at Woodend

- 1. CHAIRMAN'S REMARKS** ~ Topalovic
- 2. DECLARATION OF CONFLICT OF INTEREST**
- 3. APPROVAL OF AGENDA**
- 4. DELEGATIONS**
- 5. MEMBER BRIEFING**
 - 5.1 Strategic Plan – 2019 to 2023 ~ Peck
- 6. CHAIRMAN'S REPORT ON BOARD OF DIRECTORS ACTIONS** ~ Topalovic
 - CA1821 Westfield Heritage Village Conservation Area – Master Plan
- 7. APPROVAL OF MINUTES OF PREVIOUS MEETING**
 - 7.1 Minutes – Conservation Advisory Board (October 11, 2018) ~ Topalovic
- 8. BUSINESS ARISING FROM THE MINUTES**
- 9. STAFF REPORTS/MEMORANDUMS**
 - 9.1 2019 Shuttle Bus – Spencer Gorge Conservation Area ~ Costie
 - 9.2 HCA Conservation Area Vehicle Parking Review ~ Peck/Costie
 - 9.3 HCA 10 Year Masterplan Update Strategy ~ Hall
 - 9.4 2018 Westfield Heritage Village Artifact Donation Acquisition Report ~ Brown/Lloyd
 - 9.5 Stoney/Battlefield Creeks Flood Plain Mapping Study ~ Peck
 - 9.6 HCA Climate Change Strategy Update and HCA Involvement with Bay Area Climate Change Consortium ~ Peck
 - 9.7 Seed Mixes Suitable for HCA Watershed ~ McDonell
 - 9.8 Upcoming Events ~ Costie
- 10. NEW BUSINESS**
- 11. NEXT MEETING – Thursday, April 11, 2019 at 4:00 p.m.**
- 12. ADJOURNMENT**

HAMILTON CONSERVATION AUTHORITY

Conservation Advisory Board

MINUTES

October 11, 2018

Minutes of the Conservation Advisory Board meeting held on Thursday, October 11, 2018 at HCA's Woodend Administration Building commencing at 7:00 p.m.

PRESENT:

**Maria Topalovic, Chair
John Barkovic
Donna Kydd
Morgan Pirie
Wayne Terryberry**

**Lydia Cartlidge
Duke O'Sullivan
John Shaw**

REGRETS:

Kristen Brittain, Doug Conley, Frank Cucullo, Joanne Di Maio, Susan Fielding, Brad Gautreau, Cheryl Larocque, Chris Michels, and Robert Pasuta

STAFF PRESENT:

Jonathan Bastien, Grace Correia, Sarah Gauden, Matt Hall, Bruce Harschnitz, Judy Love, Sheila O'Neal, Scott Peck, Kathy Smith, and Jeff Stock – HCA Staff

OTHERS:

Not Present

1. CHAIR'S REMARKS

Maria Topalovic welcomed everyone and indicated the regrets received for the meeting.

2. DECLARATION OF CONFLICT OF INTEREST

The Chair asked members to declare any conflicts of interest. There were none.

3. APPROVAL OF THE AGENDA

The Chair requested any additions or deletions to the agenda. The Chair indicated that there will be a new item under 10.1 New Business.

CA1819 **MOVED BY:** **Donna Kydd**
 SECONDED BY: **John Shaw**

THAT the agenda be approved as amended.

CARRIED

4. DELEGATIONS

There was none.

5. MEMBER BRIEFING**5.1 2019 Annual Membership Pass**

Sarah Gauden provided a PowerPoint presentation and indicated the membership pass allows a driver and passenger access to HCA Conservation Areas for a year from date of purchase. The pass includes entrance for up to six people, but does include entrance to Wild Waterworks.

If pass sales hold steady, we will hit 6,280 passes sold in 2018.

The membership pass will increase by \$5.00 in 2019. With the slight increase, we anticipate that we will exceed pass sales for 2018.

The key marketing activities include radio campaign, print ads in local tourism publications, and outdoor signs. There has been a rise in online pass sales both to a change in customer behavior, more people shop online, but also because of recent changes to our online advertising.

Sarah answered member's questions. Maria thanked Sarah for her presentation.

6. CHAIRMAN'S REPORT OF BOARD OF DIRECTOR'S ACTIONS

Maria reported that the following items were approved at the September HCA Board of Directors meeting. Maria indicated that the Board of Directors approved the Terms of Reference for CAB and thanked members for providing their comments.

7. APPROVAL OF THE MINUTES OF PREVIOUS MEETING

The Lower Spencer Creek Integrated Sub-Watershed Study overall report is underway. It is HCA staff's expectation that a draft report will be available for review by the end of December. A final draft will be brought to CAB and subsequently the Board of Directors with a recommendation that the report be filed for public review and for the Ministry of Environment, Conservation and Parks.

9.2 Westfield Heritage Village Conservation Area – Master Plan

Kathy Smith presented the report and answered member's questions. Kathy indicated that we are at the final phase, finalizing the Master Plan. The draft plan was posted on the HCA website for public review. At the completion of the public commenting period, a total of sixty seven items were received and brought forward to the HCA Steering Committee and staff for review and consideration. All comments received were reviewed and have been addressed in the revised draft master plan.

This information has been provided as background for review, and recommendation to the Board of Directors that the Westfield Heritage Village Conservation Area Master Plan be approved as the official policy document for the management and development of this conservation area.

CA1821

MOVED BY: John Shaw
SECONDED BY: Lydia Cartlidge

THAT the Conservation Advisory Board recommends to the Board of Directors:

THAT this report and accompanying master plan draft document of October 2018 be received as information for project background and general understanding; and further

THAT the Westfield Heritage Village Conservation Area Master Plan be approved.

CARRIED

9.3 2018 Stewardship Program in Review

Sheila O'Neal provided a PowerPoint presentation and indicated that the Stewardship Program has a fresh branding. Staff have updated the brochure and watershed signs.

Some of the activities that took place in 2018 are as follows:

- Sharing Experiences Workshop
- Healthy Neighbourhood Workshops
- Stewardship Newsletters
- Stewardship Stations in Conservation Areas
- Volunteer Opportunities Committee
- Watershed Report Card
- Urban Bird Walk
- Watershed Stewards Appreciation Day
- Neighbourhood Native Plant Sale
- Photo Monitoring Restoration Projects
- Stormwater Stewardship
- Restoration Projects

In 2019, the Hamilton Watershed Stewardship Program will be celebrating its 25th Anniversary.

Scott Peck announced that Sheila will be retiring at the end of the year. Sheila started in 1994 and has done a tremendous job and she will be very much missed.

Maria thanked Sheila for her dedicated and passionate service with the Stewardship Department. Congratulations Sheila – you will be very much missed.

9.4 Upcoming Events

Bruce Harschnitz provided an update of the upcoming events that was provided in the agenda package.

10. NEW BUSINESS

John Shaw asked questions in regard to approvals and inspection process for the Ancaster Well. Discussions took place amongst members.

11. NEXT MEETING

The next meeting of the CAB is scheduled for Thursday, November 8, 2018 at 7:00 p.m.

12. ADJOURNMENT

On motion, the meeting was adjourned.



Report

TO: Conservation Advisory Board Members

FROM: Lisa Burnside, Chief Administrative Officer (CAO)

PREPARED BY: Gord Costie, Director of Conservation Area Services

DATE: February 1, 2019

RE: Shuttle Bus Service - Spencer Gorge Conservation Area

STAFF RECOMMENDATION

THAT HCA staff recommends to the Conservation Advisory Board:

THAT the shuttle bus service for the Spencer Gorge Conservation Area be continued in 2019 and become part of ongoing operations at Christie Lake Conservation Area on an annual basis; and

THAT the shuttle bus service operates on Saturdays, Sundays, Public Holiday Mondays and Canada Day between May and October weather pending; and further

THAT the Easter weekend be considered by staff for potential shuttle operations based on weather conditions or other factors as determined

BACKGROUND

The waterfall shuttle bus, a collaborative effort initially started by the Hamilton Conservation Authority and community group Think Greensville, was piloted in 2017. The 2017 shuttle program proved to be a significant and effective operational change for visitor access to the Spencer Gorge area removing over 16,000 cars from area roads. It demonstrated that visitors will park offsite and shuttle to the area effectively, thereby decreasing on-street parking, reducing local traffic congestion and improving

safety. With these achievements realized, it was important that the shuttle be based in an optimal location and was moved to Christie Lake Conservation Area in 2018.

The past three seasons have averaged an annual 105,000 visitors to this area with favorable weather conditions that extended into the fall color season.

STAFF COMMENT

Through the operation of this year's shuttle bus out of Christie Lake, staff have had an opportunity to experience all aspects of the service and how it integrates with Christie Lake's operations. The 2018 operating season has provided the opportunity to gain confidence and knowledge to ensure customer service and to manage special events without significant issue. Marketing and communication plans are posted on the HCA website to alert visitors of extreme peak event times.

The experience of the past year has demonstrated that Christie Lake is an ideal conservation area setting as a start and finish point for visitors with the following key attributes:

- multiple recreation experiences such as swimming, fishing, boat rentals, disc golf, bike trails and other hiking trails
- amenities and facilities for picnic areas, washrooms and food concessions
- superior wayfinding with Christie Lake recognition and current signage
- ease and safety of entry with turning lanes both east and west bound on Hwy 5
- efficient entry with dual entry lane and dual gatehouse entry terminals equipped with POS systems
- largest parking areas – designed gravel and overflow areas that can accommodate and have been designed for large scale use.

Shuttle Success Factors

The past season of experience has also brought to the forefront that getting visitors directly to Christie Lake Conservation Area as the shuttle base is a key aspect of the shuttle success. This removes traffic congestion in the area and provides the picnic, washroom and garbage facilities for visitors. In this regard, continued support from the City of Hamilton for municipal road issues is essential, as is appropriate HCA marketing and communication efforts to ensure visitors have the awareness of the shuttle operation and location and do not drive to the closed parking lots.

City of Hamilton Bylaw Enforcement and Additional Supports

A successful shuttle operation will require ongoing Bylaw Enforcement of No Parking/Stopping within the Greensville community to deter all unauthorized parking. Continued Bylaw Enforcement to shut down unauthorized "pop up" parking lots is also

noted as critical to keeping traffic away from the hamlet area and eliminate the undue flow of vehicles those lots create.

HCA staff will continue to work collaboratively with City of Hamilton and the ward councillor to identify new measures to deter parking and improve wayfinding to Christie Lake. This is particularly important during the months of September and October for fall colours when visitation increases. Joint media releases stressing waterfall safety, parking enforcement and shuttle information for Spencer Gorge will be continued.

HCA staff have also brought forward additional suggested municipal measures and supports as follows:

- install very large no parking signs down both sides of Harvest Road - similar to what has been installed along Wilson Street to deter parking by Tiffany Falls for a visual parking deterrent
- consideration be given for special event parking fines on weekends and holiday Mondays when the shuttle is running as the regular no parking/stopping fee may not be enough of a deterrent for visitors
- evaluate if additional no parking/stopping areas need to be identified and signed west of Brock Road and east of Ofield Road
- install way finding signage on municipal roads to direct cars to Christie Lake; the traffic department may have signs on trailers that could be used seasonally for this purpose and this department has experience with where to best place signage
- request that the City traffic department place “road closed signs/local traffic only” on Harvest/Brock and Harvest/Ofield on weekends during peak visitation months of September and October which also note Christie Lake as the location for waterfall parking
- consideration be given to identify any measures to physically block parking along Harvest Road with cones or some other type of barrier during peak visitation months of September and October

Marketing & Communication Efforts

With social media and the internet the main driver of where visitors look for information, HCA has focused its information and awareness of the shuttle online to ensure accurate information would be appear prominently in any search to reduce vehicles driving to the closed parking lots, requiring redirection. These efforts are undertaken not to increase and expand visitation, but to ensure the visitors that are coming have the correct information and directions.

In 2018, HCA Marketing and Communication staff placed Google AdWords promotions so that when people searched for keywords including Dundas Peak, Webster Falls, Tew Falls, Spencer Gorge, Hamilton Waterfalls, Waterfall Shuttle or Waterfall Parking, our HCA website would appear at the top of the search results. Staff also sponsored Facebook and Instagram posts at strategic points of the shuttle operations season,

namely the launch and the beginning of fall color season, promoting the use of the shuttle when visiting Webster or Tew Falls. Additionally, connections were made with our partners at Tourism Hamilton and Heart of Ontario to ensure that they linked to the shuttle information when posting about Webster Falls, Tew Falls or Spencer Gorge. Marketing & Communication will continue to build on the efforts and experience undertaken in 2018, to ensure visitors have the appropriate information for the shuttle on our website and HCA Facebook and Instagram pages and posts. They will also continue to rent the Pattison billboard sign on Highway 5 westbound to help direct cars to Christie Lake.

Parkbus

A new outreach was also undertaken in 2018 with ParkBus to address visitors from the Toronto area who looking for the Hamilton waterfall experience. The organization was founded in 2010, and operate bus services to National and Provincial Parks from major cities across Canada.

A small pilot program was trialed from June 24 to October 7, with 16 trips carrying 430 passengers. For 2019, an enlarged program with ParkBus is being explored for an expanded operating season, from May to the end of October. The ParkBus experience brings visitors directly to Christie Lake, providing the amenities these visitors are seeking for the day long experience (picnic spots, washrooms etc.) and helps reduce the impact of visitors looking for facilities at Spencer Gorge and within the Greenville community. Additionally, ParkBus has the benefit of eliminating additional traffic and cars coming to the area.

STRATEGIC PLAN LINKAGE

The initiative refers directly to the HCA Strategic Plan 2019-2023:

- **Strategic Priority Area – Conservation Area Experience**
 - Initiatives – develop visitor and parking management strategies to support conservation areas for sustainable recreation, education and tourism
 - Initiatives – identify and act upon revenue generation/cost reduction and investment in visitor services opportunities in our conservation areas
- **Strategic Priority Area – Organizational Excellence**
 - Initiatives – providing a positive and safe environment for both staff and visitors

AGENCY COMMENTS

Not applicable.

LEGAL/FINANCIAL IMPLICATIONS

From a financial perspective, operating a shuttle system out of Christie Lake compared to utilizing the parking lots at Webster and Tew Falls comes with a cost exceeding \$100,000. However, given that the visitor demand has exceeded the capacity of those parking lots a shuttle operation is needed and the current recommendation remains the most cost effective.

CONCLUSION

Based on the 2018 experience of operations out of Christie Lake, staff are recommending Christie Lake Conservation Area as the Spencer Gorge shuttle hub location and include it as part of regular operations for the park. Christie Lake is an ideal conservation area setting as the start and finish point for visitors. HCA will undertake marketing and communication efforts to ensure visitors have awareness of the shuttle operations and explore and review initiatives such as Parkbus.

Ongoing partnership with City of Hamilton will be continued for waterfall safety, and in order to discuss and address municipal parking enforcement and traffic safety.



Report

TO: Conservation Advisory Board Members

FROM: Lisa Burnside, Chief Administrative Officer (CAO)

RECOMMENDED & PREPARED BY: T. Scott Peck, MCIP, RPP, Deputy CAO/Director, Watershed Planning & Engineering and Gord Costie, Director of Conservation Area Services

DATE: February 1, 2019

RE: HCA Conservation Area Vehicle Parking Review

STAFF RECOMMENDATION

THAT the HCA staff recommends to the Conservation Advisory Board:

THAT HCA staff be directed to undertake the parking inventory as detailed in the report titled "HCA Conservation Area Vehicle Parking Review", dated February 1, 2019.

BACKGROUND

Visitor numbers at national and provincial parks and at conservation areas have been increasing over the past number of years with resulting issues being raised such as traffic congestion and safety of communities in and around these natural areas, visitor experience, and impacts on natural areas.

It is anticipated that the popularity will continue with the growing population in the greater Toronto and Hamilton Area and demonstrated through social media with visitors posting selfies and photos showcasing the natural beauty of the area and vistas. Iconic vistas and fall colour destinations throughout Ontario experience enormous parking pressures with the limited available parking facilities that quickly fill during peak times.

The issue is no longer how to attract people to these natural lands, it is how to manage the current visitation and the associated vehicle parking.

STAFF COMMENT

The HCA has been working to address parking and visitation issues by undertaking the following initiatives:

- Implementing the shuttle service at the Spencer Gorge Conservation Area and examining each year how to make this more effective.
- Shuttles have also been utilized to bring visitors to the Telling Tales Festival event at Westfield Heritage Conservation Area by the third party organizers.
- Having conservation staff on site to meet with visitors to provide trail etiquette and information regarding other conservation areas to visit.
- Trail signage and brochures highlighting the need to stay on the trail for visitor safety and conservation of the associated natural areas.
- Working through HCA website and social media regarding authorized access points and visitor education.
- Working with the City of Hamilton regarding municipal no parking and no stopping signage and associated municipal by-law enforcement.
- Installation of automated access gates at conservation areas and installing trail counters to provide accurate information regarding the number of visitors accessing areas, when and where they are accessing and the number of visitors using the various trail systems.

All of the above initiatives are considered to be part of an overall visitor management strategy for the Hamilton Conservation Authority as noted in the HCA Strategic Plan 2019 – 2023. One aspect that needs to be considered as part of an overall visitor management system is an assessment and analysis of available parking.

The purpose of this report is to highlight to the Conservation Advisory Board and the Board of Directors that staff recommend undertaking a detailed analysis and assessment of parking and associated access to our conservation areas. This project will be done in house and will be completed by the fall of 2019. The following template details what aspects will be considered through the parking review:

1. Determine number of existing parking lots at each conservation area.
 - i. Include and map locations.

- ii. Calculate and map total number of parking spaces per lot and per conservation area.
2. Identify and map local roadways surrounding conservation areas with associated parking limitations and restrictions such as no parking and no stopping areas.
3. Identify and map alternative existing parking lots on adjacent private lands.
4. Identify and map adjacent bus routes to all conservation areas.
5. Identify and map regional and local trail and cycling networks associated with conservation areas.
6. Identify and map potential parking lots on HCA lands including a review of the following:
 - i. Access and contour information.
 - ii. Site restrictions such as HCA, City of Hamilton and Niagara Escarpment Commission regulatory, land use and plan requirements.
 - iii. Information related to environmentally significant areas, woodlots, wetlands, watercourses, floodplain, ravine slopes and erosion hazards.
7. Identify and map all conservation area access points.
8. Identify and map location of all manual and automated gates.
9. Identify and map trail counter locations and associated data.

The parking review will assess the supply at HCA areas and identify gaps, provide potential recommendations for parking strategies that support HCA areas while conserving the natural features of the area, and builds upon the existing parking system. Additionally, the review will identify peak visitation times at popular conservation areas and alternative sustainable methods of access.

STRATEGIC PLAN LINKAGE

The initiative refers directly to the HCA Strategic Plan 2019 - 2023:

- **Strategic Priority Area – Conservation Area Experience**
 - Initiatives – develop visitor and parking management strategies to support conservation areas for sustainable recreation, education and tourism

AGENCY COMMENTS

Not applicable.

LEGAL/FINANCIAL IMPLICATIONS

Not applicable.

CONCLUSIONS

An HCA conservation area parking review as noted and detailed in this report will inform potential recommendations for parking strategies that support HCA areas. This project will be done in house and will be completed by the fall of 2019.



Report

TO: Conservation Advisory Board Members

FROM: Lisa Burnside, Chief Administrative Officer (CAO)

RECOMMENDED & PREPARED BY: Matthew Hall, Director; Capital Projects & Strategic Services
Kathy Smith, Design Projects Coordinator; Capital Projects & Strategic Services

DATE: January 31, 2019

RE: HCA Ten Year Masterplan Update Strategy

STAFF RECOMMENDATION

THAT the HCA staff recommends to the Conservation Advisory Board:

THAT the Conservation Advisory Board, recommends to the Board of Directors that the HCA Ten Year Masterplan Update Strategy be approved.

BACKGROUND

Over the years, HCA has undertaken and implemented Master and Management Plans, for HCA properties that we own and manage.

Master Plans provide a long-term vision for our conservation and managed areas as well as direction for guiding the management of the property. It helps advise day-to-day operational decisions and identifies actions to successfully manage the conservation area.

While some of these plans are relatively current (i.e.: less than ten years old), many more are older. Additionally, many of the older plans have seen the initial site concepts

realized and as such their needs have transitioned to more of a land and resource management strategy.

As the recent Westfield Heritage Village Conservation Area Masterplan was being finalized, HCA staff began an internal process to review the status of all existing Master and Management Plan files in order to establish a strategy to review and update these plans, for all HCA owned lands over the next ten years.

STAFF COMMENT

Staff have developed the following approach for the completion of the plans as follows:

Master Plans

- Are prepared for active conservation areas. They provide a detailed property evaluation for land and resource management, development decisions and include a public consultation process.

Management Plans

- Are prepared for lands where resource management is a priority and are generally less detailed than Master Plans. These plans set goals and objectives for property management and are supplemental to their associated Masterplan Study Area. Management Plans will include a public consultation process when not being developed within the overall scope of a Masterplan.

Study Areas

- Are prepared for specific geographic areas within our watershed. The attached map (Appendix 1.0) illustrates the locations of the proposed Study Areas and the landholdings associated within each one. The Study Area groupings shown are based on a sub-watershed basis in order to gather relevant scientific data within each area, which will then allow HCA staff to glean much more valuable insight into the appropriate zone classifications for the plans.

The attached table (Appendix 2.0) highlights the priority sequence of the related plan reviews based on HCA staff input from multiple departments. The proposed timelines have been considered with regard to a number of considerations. These include current and future use of the areas, anticipated site pressures, HCA resources available and relevant ecological information for the areas. This will be used to direct where further field review and studies will be required prior to plan initiation.

Lastly, all areas have been reviewed for crossover with other plan review agencies within the HCA watershed such as the Niagara Escarpment Plan (NEP) and Greenbelt Plan. With this in mind, HCA lands that lie within the boundary of the NEP have been specifically identified as these plan reviews will need further approval by the Niagara Escarpment Commission (NEC) in order to formally ratify them.

Beginning with the Westfield Heritage Village Conservation Area Master Plan, we have strategically decided to develop all future HCA Master Plans within the guidelines of the Niagara Escarpment Parks and Open Spaces System (NEPOSS), which is a requirement of the NEC for any public agency NEPOSS park Master Plans. The NEPOSS policy framework ensures that the NEC, MNRF and all associated public agencies are developing plans to an appropriate level of detail and have sufficient public consultation for all proposed land improvements and uses.

STRATEGIC PLAN LINKAGE

The initiative refers directly to the HCA Strategic Plan 2019 - 2023:

- **Strategic Priority Area – Conservation Area Experience**
 - Initiatives – Update and develop master and management plans, and implement priorities to further enhance conservation areas for current and future generations.

AGENCY COMMENTS

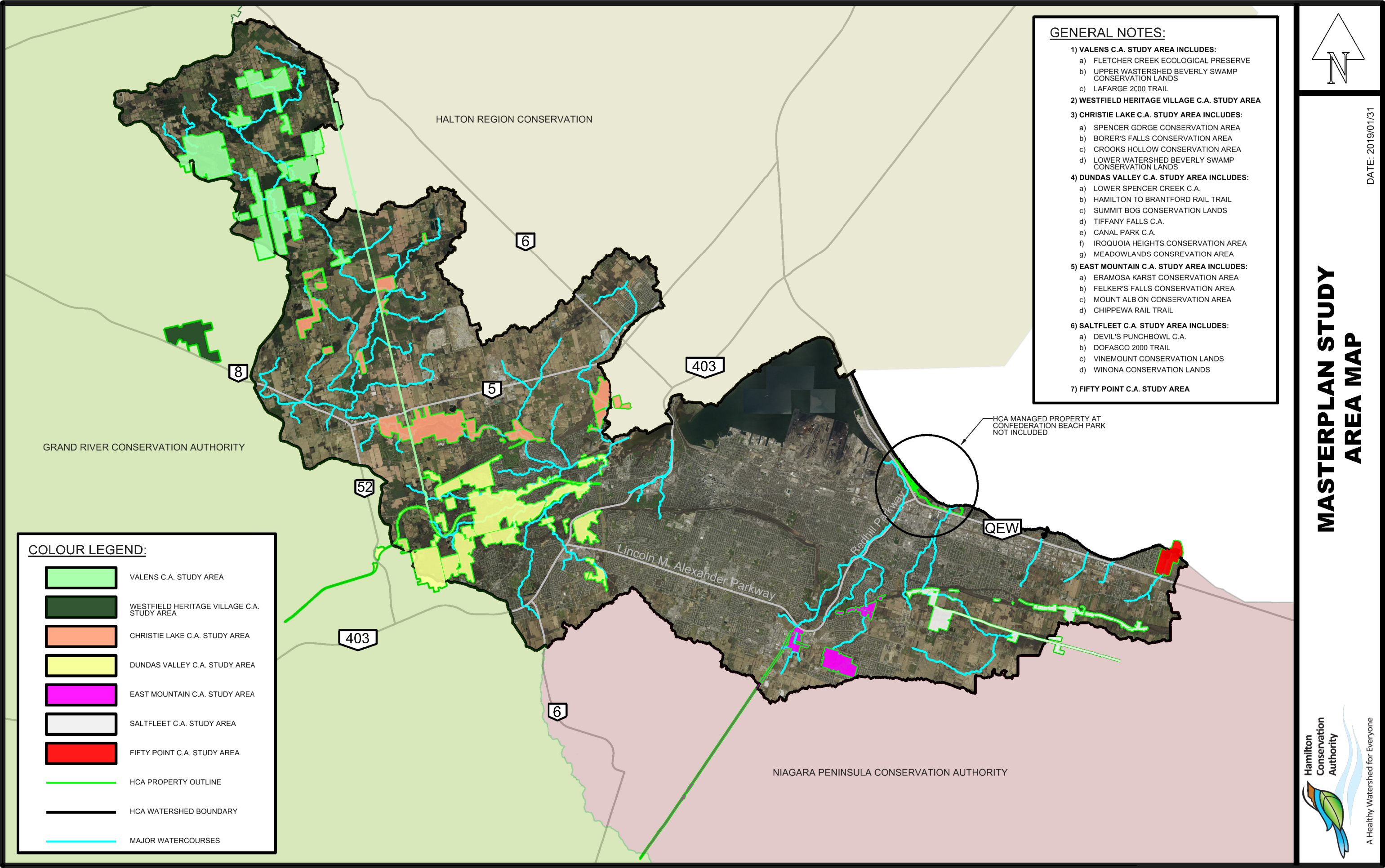
Not applicable.

LEGAL/FINANCIAL IMPLICATIONS

These plan updates are expected to utilize HCA in-house staffing expertise and resources in order to develop and implement as necessary. Third party consultation would be sought for very specific components of the plans if and when necessary. Any expenses associated to Master and Management plan development will be funded through annual HCA Capital Project budget allocations.

CONCLUSIONS

This strategy highlights a comprehensive plan for HCA staff to work toward, over the next ten years. All HCA owned property should have a current, modern, and working plan in order to effectively direct HCA staffing and resources to manage, restore and improve areas in an appropriate way.

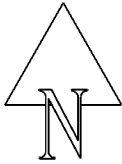


GENERAL NOTES:

- 1) **VALENS C.A. STUDY AREA INCLUDES:**
 - a) FLETCHER CREEK ECOLOGICAL PRESERVE
 - b) UPPER WATERSHED BEVERLY SWAMP CONSERVATION LANDS
 - c) LAFARGE 2000 TRAIL
- 2) **WESTFIELD HERITAGE VILLAGE C.A. STUDY AREA**
- 3) **CHRISTIE LAKE C.A. STUDY AREA INCLUDES:**
 - a) SPENCER GORGE CONSERVATION AREA
 - b) BORER'S FALLS CONSERVATION AREA
 - c) CROOKS HOLLOW CONSERVATION AREA
 - d) LOWER WATERSHED BEVERLY SWAMP CONSERVATION LANDS
- 4) **DUNDAS VALLEY C.A. STUDY AREA INCLUDES:**
 - a) LOWER SPENCER CREEK C.A.
 - b) HAMILTON TO BRANTFORD RAIL TRAIL
 - c) SUMMIT BOG CONSERVATION LANDS
 - d) TIFFANY FALLS C.A.
 - e) CANAL PARK C.A.
 - f) IROQUOIA HEIGHTS CONSERVATION AREA
 - g) MEADOWLANDS CONSERVATION AREA
- 5) **EAST MOUNTAIN C.A. STUDY AREA INCLUDES:**
 - a) ERAMOSKA KARST CONSERVATION AREA
 - b) FELKER'S FALLS CONSERVATION AREA
 - c) MOUNT ALBION CONSERVATION AREA
 - d) CHIPPEWA RAIL TRAIL
- 6) **SALTFLEET C.A. STUDY AREA INCLUDES:**
 - a) DEVIL'S PUNCHBOWL C.A.
 - b) DOFASCO 2000 TRAIL
 - c) VINEMOUNT CONSERVATION LANDS
 - d) WINONA CONSERVATION LANDS
- 7) **FIFTY POINT C.A. STUDY AREA**

COLOUR LEGEND:

- VALENS C.A. STUDY AREA
- WESTFIELD HERITAGE VILLAGE C.A. STUDY AREA
- CHRISTIE LAKE C.A. STUDY AREA
- DUNDAS VALLEY C.A. STUDY AREA
- EAST MOUNTAIN C.A. STUDY AREA
- SALTFLEET C.A. STUDY AREA
- FIFTY POINT C.A. STUDY AREA
- HCA PROPERTY OUTLINE
- HCA WATERSHED BOUNDARY
- MAJOR WATERCOURSES



DATE: 2019/01/31

**MASTERPLAN STUDY
AREA MAP**



**Master Plans Implementation Priority List
2019 - 2029**

Study Areas	Scheduled Review	NEPOSS / NEC Designation	Current Plan
<u>Valens C.A. Study Area:</u>	2019		
Valens Conservation Area			2000
Fletcher Creek Ecological Preserve			2004
Upper Watershed Beverly Swamp Conservation Lands			1976
Lafarge 2000 Trail			2000
<u>Fifty Point C.A. Study Area:</u>	2020		
Fifty Point Conservation Area			2000
<u>Saltfleet C.A. Study Area:</u>	2021		
Saltfleet Conservation Area		✓	
Devil's Punchbowl Conservation Area		✓	1976
Dofasco 2000 Trail			2000
Vinemount Conservation Lands		✓	1979
Winona Conservation Lands		✓	1979
<u>Christie Lake C.A. Study Area:</u>	2022		
Spencer Gorge Conservation Area		✓	2013
Christie Lake Conservation Area		✓	2006
Borer's Falls Conservation Area		✓	2002
Crooks Hollow Conservation Area		✓	2014
Lower Watershed Beverly Swamp Conservation Lands			1976

**Master Plans Implementation Priority List
2019 - 2029**

Study Areas	Scheduled Review	NEPOSS / NEC Designation	Current Plan
<u>Dundas Valley C.A. Study Area:</u>	2024		
Dundas Valley Conservation Area		✓	1997
Lower Spencer Creek Conservation Area			2010
Hamilton to Brantford Rail Trail		✓	2009
Summit Bog Conservation Lands		✓	1978
Tiffany Falls Conservation Area		✓	2009
Canal Park Conservation Area			
Iroquoia Heights Conservation Area		✓	1993
Meadowlands Conservation Area			2012
<u>East Mountain C.A. Study Area:</u>	2026		
Eramosa Karst Conservation Area			2015
Felker's Falls Conservation Area		✓	1980
Mount Albion Conservation Area		✓	2000
Chippewa Rail Trail			1998
Completed Studies:			
<u>Westfield Heritage Village C.A. Study Area:</u>	2030		
Westfield Heritage Village Conservation Area			2018



Report

TO: Conservation Advisory Board

FROM: Lisa Burnside, Chief Administrative Officer (CAO)

RECOMMENDED BY: Gord Costie, Director Conservation Area Services

PREPARED BY: Rondalyn Brown and Peter Lloyd, Westfield Staff

DATE: February 14, 2019

RE: 2018 Westfield Heritage Village Artifact Donation Acquisition Report

STAFF RECOMMENDATION

THAT the HCA staff recommends to the Conservation Advisory Board:

THAT the Westfield Heritage Village 2018 Artifact Acquisitions and Deaccession List be accepted as the artifacts added to, or removed from, the Westfield Heritage Village and the Hamilton Conservation Authority collection.

BACKGROUND

Westfield Heritage Village has a comprehensive Collections Management Policy approved by the Board of Directors.

Westfield is a living history museum dedicated to the collection, preservation and presentation of objects associated with the cultural and natural history of this area. Westfield maintains an artifact and archival collection consisting of more than 25,000 objects reflecting the social, cultural and material history of the area. This policy affirms the museum's commitment to managing this collection according to current professional standards for acquisition, preservation, documentation, research and use of the artifact collection.

Objects acquired for the collection will be consistent with the mandate, goals and priorities of the site. Objects collected will normally represent the types of material goods that would have been locally manufactured, routinely available or the product of local activity in Southern Ontario from the period 1790-1925. They must be in a condition suitable for display or research. The decision to accession an artifact into the Westfield Collection will be made by the Collections Committee through consultation with the Collections Officer and the Westfield Manager. A list of accessioned items will be provided to the Hamilton Conservation Authority at year end.

Deaccessioning is the permanent removal of an object from the collection. The deaccession process will be undertaken according to the highest professional standards and ethical practices, and will be fully documented. The decision to deaccession an artifact, as well as the subsequent methods of disposal, will be made by the Collections Committee, through consultation with the Collections Officer and the Westfield Manager. A list of deaccessioned items will be provided to the Hamilton Conservation Authority at year end.

STAFF COMMENT

Westfield staff is diligent about adhering to the very important collections management policies and museum standards to ensure the Hamilton Conservation Authority is managing the artifact collection in a professional manner.

STRATEGIC PLAN LINKAGE

The initiative refers directly to the HCA Strategic Plan 2019 - 2023:

- **Strategic Priority Area – Conservation Area Experience**
 - Initiatives – identify and support a more diverse and accessible range of programs for our conservation area users.

AGENCY COMMENTS

Not applicable.

LEGAL/FINANCIAL IMPLICATIONS

In accepting these artifacts the Hamilton Conservation Authority assumes liability and responsibility for the care and protection of the artifacts as per the Collections Management Policy.

CONCLUSIONS

Adding the artifacts on this list to the Westfield Heritage Village collection will preserve important pieces of local history and enhance the experience for visitors.

Westfield Donations List Complete for 2018

- Pewter jug and 5 medicine bottles
- Medicine spoon
- Wood Stove, Guelph stove works
- Collection of local wills
- Jacquard bed spread
- Post card book, Hamilton
- Feather tick
- Adze and 6 rose head nails
- Two pin cushions
- Two maple spiles
- Chenille Bed spread
- Black skirt, wool, 1900
- Rug beater
- TH&B train tickets and baggage cards
- Tooth paste pot
- Soda Cracker Box
- Bound annual of German Newspaper
- Book, botany, 1886
- Wheel Barrow
- Baptismal font Rock Chapple Methodist Church
- Group of Troy Lodge artifacts
- Wentworth County Atlas 1903
- Voting box
- Three framed photographs
- Seven COOF membership ledgers
- Odd Fellows and Free Masons pins and regalia
- Large shipping crate, stenciled
- Two gavels
- Wooden chest
- Carpenter's level
- COOF Rockton framed pledge and membership board
- Doctor's flechette
- Ceramic jardeniere (plant stand)

Westfield Deaccession List: Summer 2018

Number	Item	Condition
X975.240.1	White card. Lace samples	Poor
X975.235.1	Green display card. Lace samples	Poor
987.2137.1	Wood carriage back, wheeled bottom	Poor
987.2650.1	Metal linked hooks	Poor
973.763	Wood shelf. Carved patterns	Poor
9??	Metal pin, small	Poor
987.2135.1	Wooden board, artifact fragment	Poor
X970.723.1	Wood template. Pointed shape	Poor
998.199.135a	Long metal cover. Hooked	Poor
987.1675.1	Wrench	Poor
X970.660.1	Wood mallet	Poor
987.1667.1	Dual looped wrench	Poor
980.217.1	Spade head	Poor
976.397.1	5 spikes, linked	Poor
987.2678.1	Fire place poker	Poor
987.1860.1	Unknown heavy, metal object	Poor
987.2653.1	3-pronged pitch fork head	Poor
976.387.1	Rope pulley	Poor
987.2656.1	Shovel head	Poor
987.2791.1	Metal welding compressor	Poor
987.2382.1	Mallet. Long handle.	Poor
987.1731.1	Metal disk. 30-holed	Poor

X970.948.4	Crude chandelier. Wood	Poor
N.N.	Bell pump organ	Poor
987.2147.1	Pump organ	Poor
987.2152.1	Cracked tin	Poor
X972.416	Tea tin	Poor
X974.855.1a	Chamber pot	Poor
000.37.9	Record player	Poor
996.6.1	Barley flower bin	Poor
X972.418	Spice tin	Poor
X971.100.1	Spice tin	Poor
986.2511.1	Rusty tin	Poor
005.41.18	Wood/ leather clamp	Poor
976.384.1	Metal pulley wheel	Poor
986.871.1	White tin, large,	Poor
984.02.02	Wood lid	Poor
994.2.1	Piano. Black – Broken sound board	Poor
980.223.1	Piano, Mason & Rich. Broken sound	Poor
987.2302.1	Spool	Poor
987.2229.1	Spool	Poor
987.2283.1	Spool	Poor
987.2296.1	Spool	Poor
987.2284.1	Spool	Poor
987.2269.1	Spool	Poor
987.2278.1	Spool	Poor
987.2242.1	Spool	Poor

987.2220.1	Spool	Poor
987.2305.1	Spool	Poor
987.2225.1	Spool	Poor
987.2212.1	Spool	Poor
987.2249.1	Spool	Poor
987.2299.1	Spool	Poor
987.2217.1	Spool	Poor
987.2282.1	Spool	Poor
987.2293.1	Spool	Poor
987.2317.1	Spool	Poor
987.2273.1	Spool	Poor
987.2276.1	Spool	Poor
X974.491.1	Spool	Poor
987.2292.1	Spool	Poor
987.2235.1	Spool	Poor
987.2240.1	Spool	Poor
987.2312.1	Spool	Poor
987.2279.1	Spool	Poor
987.2230.1	Spool	Poor
987.2214.1	Spool	Poor
987.2316.1	Spool	Poor
987.2307.1	Spool	Poor
987.2321.1	Spool	Poor
987.2213.1	Spool	Poor
987.2261.1	Spool	Poor

987.2318.1	Spool	Poor
987.2267.1	Spool	Poor
987.2288.1	Spool	Poor
987.2263.1	Spool	Poor
987.2306.1	Spool	Poor
987.2315.1	Spool	Poor
987.2287.1	Spool	Poor
987.2211.1	Spool	Poor
987.2271.1	Spool	Poor
987.2250.1	Spool	Poor
987.2314.1	Spool	Poor
987.2240.1	Spool	Poor
987.2218.1	Spool	Poor
987.2208.1	Spool	Poor
987.2259.1	Spool	Poor
987.2310.1	Spool	Poor
987.2265.1	Spool	Poor
987.2222.1	Spool	Poor
987.2270.1	Spool	Poor
987.2322.1	Spool	Poor
987.2295.1	Spool	Poor
987.2234.1	Spool	Poor
987.2233.1	Spool	Poor
987.2241.1	Spool	Poor
987.2244.1	Spool	Poor

987.2378.1	Spool	Poor
987.2285.1	Spool	Poor
987.2275.1	Spool	Poor
002.0013.1	Road Grader	Poor
996.167.1	Stirrup	Poor
987.1644.1	Horse bit	Poor
987.1797.1	Pick Ax Head	Poor
983.17.14c	Small Jar	Poor
985.200.1	Hair Band	Poor
986.1772.3	Train Flag	Poor
986.1772.5	Train Flag	Poor
987.2142.1	Bicycle Tool Pouch	Poor
X970.925.1	Tin container	Poor
994.12.21	Brown Chair, Large Right Arm	Poor
994.12.20	Brown Chair, Large Right Arm	Poor
002.17.1b	Bed Frame, front	Poor
002.17.1d	Bed Side Frame	Poor
002.17.1c	Bed Support Frame	Poor
002.17.1a	Bed Back Frame	Poor
987.1005.1	Chair, Flower-Patterns, Wheels	Poor
987.999.1	Chair, Flower-Patterns, Wheels	Poor
996.150.1	Rocking Chair, Red, No Feet	Poor
X971.744.1	Package, Buck Bean Leaves	Poor
977.3.980	Package	Poor
986.1448.1	Package, Romid Pills	Poor

995.555.1a-g	Weigh Scale & Parts	Poor
X971.730.1	Package Liniment	Poor
015.16.151	Package Talcum Powder	Poor
978.449.1	Medicine Bottle	Poor
979.9.1	Medicine Bottle	Poor
978.415.1	Medicine Bottle	Poor
979.5.1	Medicine Bottle	Poor
978.429.1	Medicine Bottle	Poor
986.524.1	Medicine Bottle	Poor
978.491.1	Medicine Bottle	Poor
X971.724.1	Medicine Bottle	Poor
996.182.1	Medicine Bottle	Poor
998.38.1	Medicine Bottle	Poor
996.174.1	Medicine Bottle	Poor
986.585.1	Sloan's Liniment	Poor
996.169.1	Medicine Bottle	Poor
998.43.1	Medicine Bottle	Poor
012.109.1	Chair, Holes	Poor
986.1533.1	Chair Set, Cheap	Poor
986.1533.2	Chair Set, Cheap	Poor
986.1533.3	Chair Set, Cheap	Poor
986.1533.4	Chair Set, Cheap	Poor
986.1533.5	Chair Set, Cheap	Poor
986.1533.6	Chair Set, Cheap	Poor
980.219.1	Table, Extending Arm	Poor

X972.461	Stove	Poor
X972.462	Stove	Poor
X971.0938.1	Stove	Poor
987.2035.1	Stove	Poor
973.636	Screen, Bamboo Frame	Poor
987.3354.1	Office Chair	Poor
X970.948.1	Wood Chandelier frame	Poor
999.39.1	Metal Piece	Poor
X972.393	Artifact fragment	Poor
987.2035.1	Stove	Poor
X972.461.1	Stove	Poor
986.1978.1	Stove	Poor
986.1387.1	Stove	Poor
X972.493.1	Stove	Poor
X972.461.1	Stove	Poor
982.22.3	Hay rake	Poor
982.22.1	Hay reaper	Poor
982.22.2	Hay mower	Poor
980.215.3	Two wheel gig	Poor
987.4061.1	Field roller	Poor
987.4197.1	Tractor, gasoline, M.D.	Poor



Memorandum

TO: Conservation Advisory Board

FROM: Lisa Burnside, Chief Administrative Officer (CAO)

RECOMMENDED & PREPARED BY: T. Scott Peck, MCIP, RPP, Deputy CAO/Director, Watershed Planning & Engineering

DATE: January 25, 2019

RE: Stoney/Battlefield Creeks Flood Plain Mapping Study

BACKGROUND

In 2010, the Hamilton Conservation Authority (HCA) undertook a *Flood Plain Mapping Review* of the existing HCA floodplain mapping for the watershed. The results of the review determined that the existing floodplain mapping needed to be updated and recommendations were implemented to update and create new HCA floodplain mapping to meet current standards. Since then, floodplain mapping has been completed for Lower Spencer Creek (Dundas) and the floodplain mapping project for the numbered watercourses in Stoney Creek is nearing completion. The next area identified for new floodplain mapping is Battlefield Creek and Stoney Creek.

Battlefield Creek and Stoney Creek are located within the geographic boundary of the former City of Stoney Creek (Figure 1). Official Flood Plain Mapping was previously completed for reaches of Battlefield Creek and Stoney Creek above the escarpment, through the *Stoney & Battlefield Creeks – Flood Line Mapping Study* (Dillon Consulting Engineers & Planners, 1976). In addition, official Flood Plain Mapping was completed in the past for reaches of Battlefield Creek and Stoney Creek below the escarpment, through the *City of Stoney Creek Flood Damage Reduction Study* (Philips Planning & Engineering Ltd., 1989). More recently, subsequent hydrologic and hydraulic assessments for these watercourses were undertaken as part of the *Flood and Erosion Control Project for Upper Battlefield Creek and Stoney Creek* (Wood, 2018) and *Stoney Creek and Battlefield Creek Flood and Erosion Control Class Environmental*.

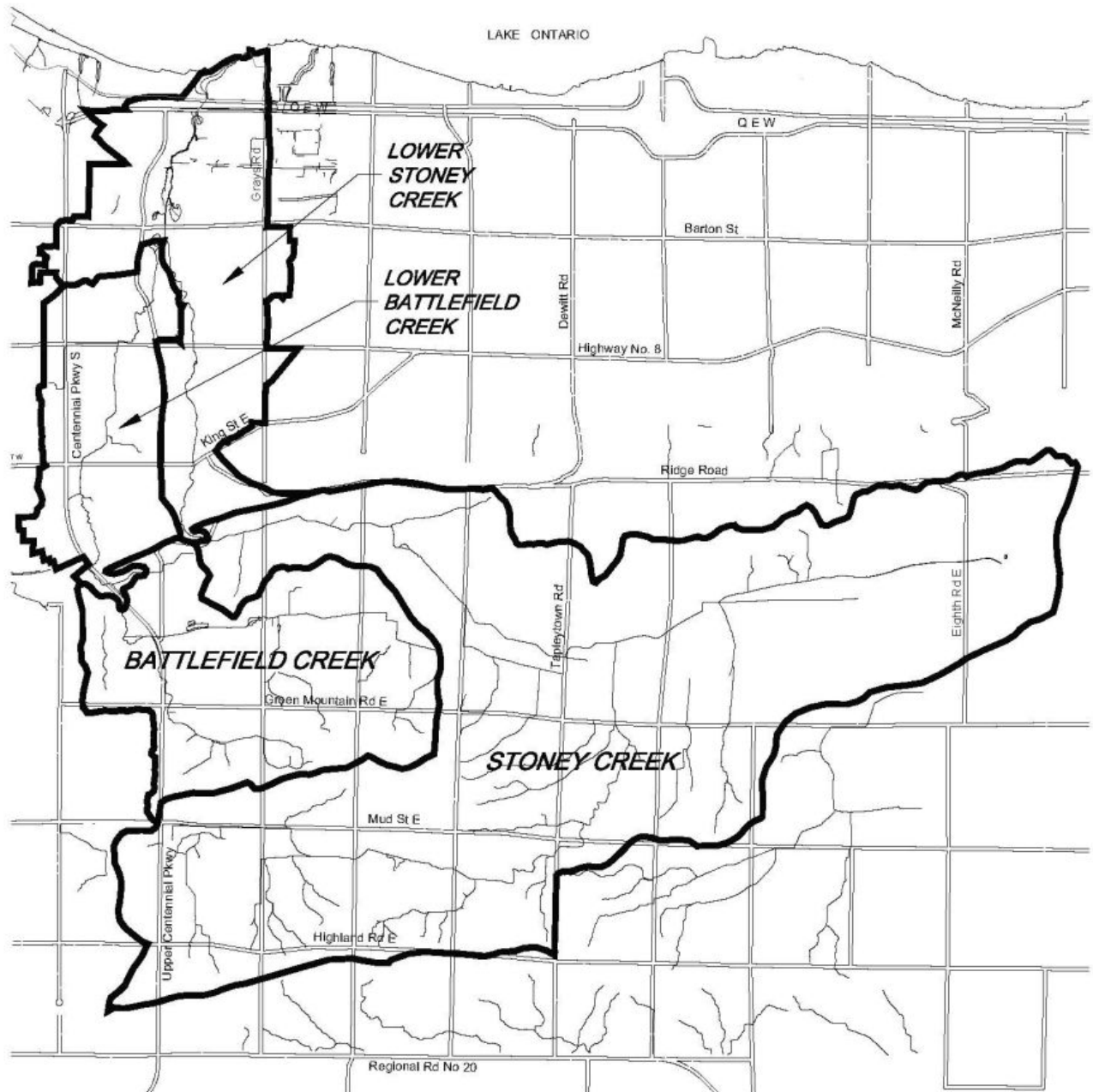


Figure 1

Assessment (Amec, 2011). Both of these studies included hydrologic and hydraulic modeling, as well as floodplain estimations. However, these studies were focused on reducing the flood risks resulting from more frequent storm events, and these studies do not satisfy all of the HCA Flood Plain Mapping Standards.

STAFF COMMENT

Hamilton Conservation Authority (HCA) is undertaking a floodplain mapping update study for Stoney Creek and Battlefield Creek, to revise these recent studies so that the hydrology, hydraulic and floodplain mapping assessments are in accordance with the HCA Flood Plain Mapping (FPM) Standards, as stated in the *HCA Flood Plain Mapping Review (2010)*. A Request for Proposal for engineering consultant services will be considered by the Board of Directors at their February 7, 2019 meeting. This memorandum has been prepared to advise the Conservation Advisory Board of this floodplain mapping project and HCA staff will keep the Conservation Advisory Board up-to-date relating to major milestones and public engagement for this project. It is anticipated that this floodplain mapping project will be completed by the end of 2019.

STRATEGIC PLAN LINKAGE

The initiative refers directly to the HCA Strategic Plan 2019 - 2023:

- **Strategic Priority Area – Water Management**
Initiatives – complete floodplain mapping update program.

AGENCY COMMENTS

Not applicable.

LEGAL/FINANCIAL IMPLICATIONS

Not applicable.

CONCLUSIONS

Current and up-to-date floodplain mapping is a primary requirement in the HCA's municipal plan review, regulatory review and flood forecasting and warning programs and is critical to the success of these programs. The completion of the floodplain mapping for Stoney Creek and Battlefield Creek is a component of completing this requirement for the HCA watershed.



Memorandum

TO: Conservation Advisory Board

FROM: Lisa Burnside, Chief Administrative Officer (CAO)

RECOMMENDED & PREPARED BY: T. Scott Peck, MCIP, RPP, Deputy CAO/Director, Watershed Planning & Engineering

DATE: January 25, 2019

RE: HCA Climate Change Strategy Update and HCA Involvement with Bay Area Climate Change Consortium

BACKGROUND

In March 2012, the Hamilton Conservation Authority (HCA) Board of Directors approved the HCA Climate Change Strategy. The overall goal of this strategy was “To increase the resiliency of our watersheds, systems (natural and man-made) and communities to meet the challenge of climate change”. Four strategies for addressing climate change were identified in the HCA Climate Change Strategy and they are as follows:

1. Understand the Problem
2. Share Information
3. Integrate into Existing Policies
4. Develop New Policies

Over the past 7 years, implementation efforts relating to the HCA Climate Change Strategy have included completing vulnerability analysis and modelling with the City of Hamilton, working with partners to provide data available through our monitoring program, providing education information to the public regarding what can be done to mitigate and adapt to climate change and promoting “Turn Off Your Engine” decals for HCA vehicles and HCA parking facilities. The HCA also promotes sustainability and addressing climate change by:

- promoting sustainable business practices and energy conservation throughout all conservation areas and office buildings, and

- promoting these practices among conservation area users and the general public.

With the above noted, the biggest impact that the HCA has in adapting to climate change relates to working with landowners through our Hamilton Watershed Stewardship Program to promote stewardship, restoration and storm water management on private lands and through management of HCA lands to maintain, restore and enhance the natural areas in our ownership. Adding to these lands through our land securement program is a major way to adapt to climate change. Further, the Saltfleet Conservation Area Wetland Restoration Project is very much a climate change adaptation measure as it will address flooding and erosion, create and restore wetlands to promote a natural hydrologic cycle, increase natural cover through wetlands, forests and grasslands and promoting an understanding of the benefits of this program to the public as it relates to climate change adaptation.

As part of our work to implement the HCA Climate Change Strategy and as part of our overall program work within the watershed, HCA staff have joined the Bay Area Climate Change Council.

STAFF COMMENT

The purpose of this memorandum is to highlight our ongoing efforts as it relates to addressing climate change and to highlight HCA staff involvement with the Bay Area Climate Change Council. The Council is a part of the regional collaboration between the cities of Hamilton and Burlington and Mohawk College to reduce greenhouse gas emissions and build resilience for climate change in the Bay Area. The Bay Area Climate Change Council will:

- identify strategic climate change priorities
- create and update plans to move toward achieving identified priorities
- work with the implementation team on project implementation
- evaluate and report on the effectiveness of programs and progress toward targets.

HCA staff are involved with this initiative to further our understanding of local work being undertaken to address climate change, to assist in the development of goals and priorities and work plan implementation and to incorporate this work into HCA programs.

STRATEGIC PLAN LINKAGE

The initiative refers directly to the HCA Strategic Plan 2019 - 2023:

- **Strategic Priority Area – Water Management**
 - Initiatives – Invest in our monitoring programs and networks to support our ability to track the impacts of climate change and changes in our environment, and inform adaptation strategies

AGENCY COMMENTS

Not applicable.

LEGAL/FINANCIAL IMPLICATIONS

Not applicable.

CONCLUSIONS

HCA involvement with the Bay Area Climate Change Council will enable continued engagement with business, government, community and individual stakeholders to improve our understanding of local climate change issues and priorities. Further, the Council's work will help inform HCA programs as it relates to the HCA Climate Change Strategy and community priorities, work plans and implementation and the effectiveness of programs and achieving targets.



Report

TO: Conservation Advisory Board Members

FROM: Lisa Burnside, Chief Administrative Officer (CAO)

RECOMMENDED BY: T. Scott Peck, MCIP, RPP, Deputy Chief Administrative Officer/Director, Watershed Planning & Engineering

PREPARED BY: Lesley McDonell, Terrestrial Ecologist
Mike Stone, MCIP, RPP, Manager, Watershed Planning, Stewardship & Ecological Services

DATE: January 25, 2019

RE: Seed Mixes Suitable for HCA Watershed

STAFF RECOMMENDATION

THAT the HCA staff recommends to the Conservation Advisory Board:

THAT the Conservation Advisory Board recommends to the Board of Directors that the Seed Mix Guidelines for the HCA Watershed be approved.

BACKGROUND

The Hamilton Conservation Authority (HCA) frequently provides recommendations for species to be included in plantings for residential, commercial and industrial developments, stormwater management facilities and other infrastructure projects, buffer zones and naturalization projects.

When making recommendations for species to be planted, HCA staff consider site and surrounding conditions, including soils, vegetation community type(s), significant or sensitive natural features, ecological functions, native status and local occurrence of species present, etc. Careful consideration of such factors as part of a planting project is important towards the conservation of the natural features present, to help control invasive species, and for the maintenance of biodiversity and ecological integrity more

generally. While HCA staff has always taken such factors into consideration when commenting on planting proposals, there currently is no official document to guide staff's recommendations.

STAFF COMMENT

HCA staff have developed the attached summary of the seed mixes that are appropriate for use within our watershed. The document is intended for use by HCA staff, and to also be distributed to external parties and proponents of development as necessary. The primary purpose of this document is to clarify HCA's expectations for appropriate seed mixes (species) for planting in different scenarios, and to promote consistency in staff's planting recommendations when reviewing development, infrastructure and naturalization projects being undertaken by external, private developers and landowners.

With the exception of temporary cover/nurse crops, all species included in the guidelines are native and locally common. This encourages a diverse native community that is resilient. Invasive/exotic species are avoided as they may out-compete native species for resources and can undermine the ecological integrity of restoration sites and adjacent natural areas. Most seed mixes include a high number of species to promote diversity and the establishment of a system that can withstand a variety of soil and moisture conditions.

STRATEGIC PLAN LINKAGE

The initiative refers directly to the HCA Strategic Plan 2019 - 2023:

- **Strategic Priority Area – Natural Heritage Conservation**
 - Initiatives: promote sustainable development by working with the City of Hamilton on natural heritage issues and undertake the HCA plan input and review program
 - Initiatives: maintain and enhance the natural heritage features of HCA lands and manage these lands on an environmentally sustainable basis.

AGENCY COMMENTS

Not applicable.

LEGAL/FINANCIAL IMPLICATIONS

None.

CONCLUSIONS

HCA currently has no formal guideline document to use when providing recommendations on development proposals that require planting of terrestrial vegetation. The development of a guideline document will promote consistency in species planted as part of projects undertaken when staff review planting plans associated with development/infrastructure and restoration projects carried out by external/private landowners. It will also ensure that recommendations include native, common species that will not undermine the ecological integrity of planting sites or adjacent natural areas.

Attachment A – Seed Mixes Suitable for Our Watershed Document



Seed Mixes Suitable for our Watershed



A Healthy Watershed for Everyone

Hamilton Conservation Authority (HCA) has developed a variety of seed mixes that are appropriate for use within our watershed. These seed mixes are suitable for restoration and naturalization projects, as well as for planting plans for stormwater management facilities. One of the main purposes of this document is to standardize the planting recommendations to development projects.

With the exception of temporary cover/nurse crops, all species are native and locally common. Invasive/exotic species are avoided as they may out-compete native species for resources and can undermine the ecological integrity of restoration sites and adjacent natural areas. Most seed mixes include a high number of species to promote diversity and the establishment of a system that can withstand a variety of soil and moisture conditions. Proponents can select any supplier to purchase their seed mixes but HCA recommends suppliers who obtain their seeds locally. Seed zones 34, 37 and 38 are preferred.

Application Rate: These seed mixes should be applied at a rate of 22 - 25 kg/ha (21- 23 lbs/acre) or at a rate of 250g/90 m² (1/2lb/1000 sq. ft) for smaller areas.

Wetland Restoration Mix

Common Name	Latin Name	City of Hamilton Status	% of Mix
Creeping Bent Grass	<i>Agrostis stolonifera</i>	Common	20
Canada Anemone	<i>Anemonastrum canadense</i>	Common	1
Swamp Milkweed	<i>Asclepias incarnata</i> ssp. <i>incarnata</i>	Common	1
Swamp Aster	<i>Symphyotrichum puniceum</i> var. <i>puniceum</i>	Common	1
Canada Blue-joint	<i>Calamagrostis canadensis</i>	Common	1
Bebb's Sedge	<i>Carex bebbii</i>	Common	1
Awl- fruited Sedge	<i>Carex stipata</i>	Common	1
Fox Sedge	<i>Carex vulpinoidea</i>	Common	20
Virginia Wildrye	<i>Elymus virginicus</i> var. <i>virginicus</i>	Common	20
Spotted Joe-Pye-Weed	<i>Eutrochium maculatum</i>	Common	1
Common Boneset	<i>Eupatorium perfoliatum</i>	Common	1
Grass Leaved Goldenrod	<i>Euthamia graminifolia</i>	Common	1
Fowl Mannagrass	<i>Glyceria striata</i>	Common	1
Fowl Bluegrass	<i>Poa palustris</i>	Common	20
Dark Green Bulrush	<i>Scirpus atrovirens</i>	Common	6
Canada Goldenrod	<i>Solidago canadensis</i>	Common	1
Blue Vervain	<i>Verbena hastata</i>	Common	3
			100

Low Maintenance Retention Basin Seed Mix

Common Name	Latin Name	City of Hamilton Status	% of Mix
Rough Bentgrass	<i>Agrostis scabra</i>	Common	25
Fox Sedge	<i>Carex vulpinoidea</i>	Common	25
Virginia Wildrye	<i>Elymus virginicus</i> var. <i>virginicus</i>	Common	25
Fowl Bluegrass	<i>Poa palustris</i>	Common	25
			100

Upland Native Meadow Mix

Common Name	Latin Name	City of Hamilton Status	% of Mix
Common Evening Primrose	<i>Oenothera biennis</i>	Common	25
Canada Anemone	<i>Anemonastrum canadense</i>	Common	1
Common Milkweed	<i>Asclepias syriaca</i>	Common	2
Heart Leaved Aster	<i>Symphotrichum cordifolium</i>	Common	1
New England Aster	<i>Symphotrichum novae-angliae</i>	Common	1
Granular Sedge	<i>Carex granularis</i>	Common	15
Virginia Virgin's-bower	<i>Clematis virginiana</i>	Common	1
Virginia Wildrye	<i>Elymus virginicus</i> var. <i>virginicus</i>	Common	40
Grass-leaved Goldenrod	<i>Euthamia graminifolia</i>	Common	1
Wild Bergamot	<i>Monarda fistulosa</i>	Common	1
Black-eyed Susan	<i>Rudbeckia hirta</i>	Common	10
Canada Goldenrod	<i>Solidago canadensis</i>	Common	2
			100

Bank Seed Mix

Common Name	Latin Name	City of Hamilton Status	% of Mix
Creeping Bentgrass	<i>Agrostis stolonifera</i>	Common	30
New England Aster	<i>Symphotrichum novae-angliae</i>	Common	1
Fox Sedge	<i>Carex vulpinoidea</i>	Common	25
Bottlebrush Grass	<i>Elymus hystrix</i>	Common	7
Fowl Mannagrass	<i>Glyceria striata</i>	Common	7
Fowl Bluegrass	<i>Poa palustris</i>	Common	25
Black-eyed Susan	<i>Rudbeckia hirta</i>	Common	5
			100

Wet Meadow Marsh Mix

Common Name	Latin Name	City of Hamilton Status	% of Mix
Swamp Milkweed	<i>Asclepias incarnata ssp. incarnata</i>	Common	1
New England Aster	<i>Symphyotrichum novae-angliae</i>	Common	1
Swamp Aster	<i>Symphyotrichum puniceum var. puniceum</i>	Common	1
Fox Sedge	<i>Carex vulpinoidea</i>	Common	35
Virginia Wildrye	<i>Elymus virginicus var. virginicus</i>	Common	35
Spotted Joe-Pye-Weed	<i>Eutrochium maculatum</i>	Common	1
Harlequin Blue Flag	<i>Iris versicolor</i>	Common	1
Soft Rush	<i>Juncus effusus ssp. solutus</i>	Common	5
Rice Cutgrass	<i>Leersia oryzoides</i>	Common	1
Square-stemmed Monkeyflower	<i>Mimulus ringens</i>	Common	1
Dark-green Bulrush	<i>Scirpus atrovirens</i>	Common	8
Cottongrass Bulrush	<i>Scirpus cyperinus</i>	Common	1
Blue Vervain	<i>Verbena hastata</i>	Common	9
			100

Early Succession Wet Meadow Mix

Common Name	Latin Name	City of Hamilton Status	% of Mix
New England Aster	<i>Symphyotrichum novae-angliae</i>	Common	1
Swamp Aster	<i>Symphyotrichum puniceum var. puniceum</i>	Common	1
Bebb's Sedge	<i>Carex bebbii</i>	Common	4
Fringed Sedge	<i>Carex crinita</i>	Common	1
Pointed Broom Sedge	<i>Carex scoparia</i>	Common	2
Awl-fruited Sedge	<i>Carex stipata</i>	Common	4
Fox Sedge	<i>Carex vulpinoidea</i>	Common	25
Showy Tick-trefoil	<i>Desmodium canadense</i>	Common	1
Virginia Wildrye	<i>Elymus virginicus var. virginicus</i>	Common	25
Tall Mannagrass	<i>Glyceria grandis</i>	Common	2
Soft Rush	<i>Juncus effusus ssp. solutus</i>	Common	4
Path Rush	<i>Juncus tenuis</i>	Common	3
Great Blue Lobelia	<i>Lobelia siphilitica</i>	Common	1
Wild Bergamot	<i>Monarda fistulosa</i>	Common	1
Fowl Bluegrass	<i>Poa palustris</i>	Common	25
			100

Black Walnut Tolerant Species

Common Name	Latin Name	City of Hamilton Status	Sun	Moisture
Black-eyed Susan	<i>Rudbeckia hirta</i>	Common	Full	Dry
Smooth Aster	<i>Symphyotrichum laeve</i>	Common	Full	Dry
New England Aster	<i>Symphyotrichum novae-angliae</i>	Common	Full	Dry/Moist
Sky Blue Aster	<i>Symphyotrichum oolentangiense</i>	Common	Full	Dry
Wild Bergamot	<i>Monarda fistulosa</i>	Common	Full	Dry/Moist
Michigan Lily	<i>Lilium michiganense</i>	Common	Full	Moist
Red-osier Dogwood	<i>Cornus sericea</i>	Common	Full	Moist
Canada Wild-ginger	<i>Asarum canadense</i>	Common	Part/Shade	-----
Tall Anemone	<i>Anemone virginiana</i> var. <i>virginiana</i>	Common	Part/Shade	-----
Jack-in-the-pulpit	<i>Arisaema triphyllum</i> ssp. <i>triphyllum</i>	Common	Part/Shade	-----
Heart-leaved Aster	<i>Symphyotrichum cordifolium</i>	Common	Part/Shade	-----
Tall Bellflower	<i>Campanula americanum</i>	Common	Part/Shade	-----
Virginia Waterleaf	<i>Hydrophyllum virginianum</i>	Common	Part/Shade	-----
Spotted Geranium	<i>Geranium maculatum</i>	Common	Part/Shade	-----
Woodland Sunflower	<i>Helianthus divaricatus</i>	Common	Part/Shade	-----
Old-field Cinquefoil	<i>Potentilla simplex</i>	Common	Part/Shade	-----
Zigzag Goldenrod	<i>Solidago flexicaulis</i>	Common	Part/Shade	-----
Woolly Blue Violet	<i>Viola sororia</i>	Common	Part/Shade	-----
Bottlebrush Grass	<i>Elymus hystrix</i>	Common	Part/Shade	-----

Cover Crop

A cover crop should be utilized with each of the seed mixes. The cover crop will act as a nurse crop, providing short term erosion control and weed control. Note that winter will kill both oat plants and oat seed, so there is no carry over from year to year.

Hamilton Conservation Authority does not support the use of Annual Rye (*Lolium multiflorum*) as a nurse crop. Recent research indicates that Annual Rye can inhibit the growth of other species thereby hindering the establishment of native vegetation. It can also be confused with and potentially hybridize with Perennial Rye (*Lolium perenne*).

While utilizing a single species as a nurse crop may be acceptable, a mix of two (2) or more species establishes quicker providing enhanced coverage and stabilization. Some suggested cover crops are provided below.

Common Name	Latin Name
Cultivated Oats	<i>Avena sativa</i>
Buckwheat	<i>Fagopyrum esculentum</i>
Canada Wildrye	<i>Elymus canadensis</i>
Creeping Bentgrass	<i>Agrostis stolonifera</i>



Upcoming 2019 HCA & Partner Events

Ice Fishing Derby

February 16, Sunrise to 1:00 p.m.

Valens Lake Conservation Area

1691 Regional Road 97 (R.R.#6), Flamborough, Ontario N1R 5S7

Ice Fishing Derby for bluegill and crappie species. From sunrise until 1 p.m. Lots of prizes to be won for the top number of catches. For more information, please call Valens Lake at 905-525-2183 or email valens@conservationhamilton.ca

Maple Syrup Festival

March 3, 10, 17, 24 & 31

Wednesday, March 13, Thursday, March 14 of March Break

10:00 – 4:00 pm

Westfield Heritage Village

1049 Kirkwall Road, Rockton, ON L0R 1X0

Discover one of Canada's most time-honoured and tasty traditions. Explore historical and modern methods of making of maple syrup from the tree to the table. Families can purchase and enjoy a delicious, reasonably-priced pancake breakfast. For more information visit www.westfieldheritage.ca