Conservation Halton

Board of Directors

MEETING PACKAGE

JUN 2020

The Conservation Halton Foundation Gala

Conservation Halton

June 2020

MEETING NO: # 05 20 Conservation Halton Board of Directors

DATE: June 25, 2020

TIME: 3:00 P.M.

VIDEO CONFERENCE: **Zoom webcast Password: 633024**

https://us02web.zoom.us/j/85664111405?pwd=bHZ2U052MzRxb29VSGZ3Nm5JSEpiZz09

AGENDA

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1.	**Roll Call**	
2.	**Acceptance of Agenda as distributed**	
3.	**Disclosure of Pecuniary Interest for Board of Directors**	
4.	**Consent Items**	
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5.	**Action Items**	
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6. CAO Verbal Update

6.1 Parks opening and other COVID-19 operational impacts

7. Other Business

8. Adjournment

Conservation Halton

April 2020

MEETING NO: # 04 20 Conservation Halton Board of Directors/Annual General Meeting

MINUTES

A meeting of the Conservation Halton Board of Directors was held on Thursday, April 23 at 3:00 p.m. via Video Conference

Members Present:
Hamza Ansari
Rob Burton
Mike Cluett
Rick Di Lorenzo
Joanne Di Maio
Cathy Duddeck
Allan Elgar
Steve Gilmour
Zeeshan Hamid
Zobia Jawed
Moya Johnson
Gordon Krantz
Bryan Lewis
Marianne Meed Ward
Rory Nisan
Gerry Smallegange
Jim Sweetlove
Jean Williams

Absent with regrets: Dave Gittings

Staff present
Hassaan Basit, CAO/Secretary-Treasurer
Garner Beckett, Director, CH Foundation
Adriana Birza, Manager, Office of the CAO
Craig Machan, Senior Manager, Kelso/Glen Eden & Park Operations
Kellie McCormack, Senior Manager, Planning & Regulations
Marnie Piggot, Director, Finance
Plezzie Ramirez, Senior Manager, Human Resources
Jill Ramseyer, Director, Corporate Compliance
Katie Skillen, Associate Director, Marketing and Communications
Barb Veale, Director, Planning & Watershed Management
Mark Vytvytskyy, Interim Director, Parks and Operations
Lawrence Wagner, Senior Director, Corporate Services
Meghan Hunter, Manager, Risk and Lands
Pavan Seth, Procurement Specialist
Nigel Finney, Project Manager, Restoration & Conservation

Chair Gerry Smallegange called the meeting to order at 3.15 p.m.

1. Roll Call

2. Acceptance of Agenda as AMENDED

CHBD 04 01: Moved by: Moya Johnson
Seconded by: Zeeshan Hamid

THAT the Conservation Halton Board of Directors **accepts the agenda as distributed.**

Carried

3. Disclosure of Pecuniary Interest for Board of Directors

There were **NONE**.

4. Consent Items
Approval of Conservation Halton Board of Director Meeting Minutes dated April 1, 2020

4.1 Kelso Dam Update
(CHBD 04 20 01)

4.2 Kelso Spill Update – Beyond Restoration
(CHBD 04 20 02)

4.3 Maplehurst Correctional Centre Flood Mitigation Feasibility Study
(CHBD 04 20 03)

4.4 Science & Partnerships Highlights 2019
(CHBD 04 20 04)

4.5 2020 Protecting People and Property: Ontario's Flooding Strategy
(CHBD 04 20 05)

4.6 Provincial Policy Statement
(CHDBD 04 20 06)

4.7 Update on the Development of Conservation Halton Technical Submission Guidelines
(CHBD 04 20 07)

4.8 Health & Safety Report 2019 Q4 and 2020 Q1
(CHBD 04 20 08)

4.9 Purchasing Report February – April 2020
(CHBD 04 20 09)

The consent items **were adopted.**

5. Action Items

5.1 2019 Audited Financial Statement
(Audit Findings presentation by Matthew Betik, KPMG Engagement Partner)
(Report #: CHBD 04 20 10)

CHBD 04 02 Moved by: Gordon Krantz
Seconded by: Bryan Lewis

THAT the Conservation Halton Board of Directors **approve the attached audited financial statements for the year ended December 31, 2019.**

Carried

5.2 2019 Budget Variance Report
(Report #: CHBD 04 20 11)

CHBD 04 03 Moved by: Marianne Meed Ward
Seconded by: Rory Nisan

THAT the Conservation Halton Board of Directors **approve the allocation of the 2019 operating surplus to the following Reserves:**

- **$250,000 to the Building – State of Good Repair Reserve.**
- **$72,162 to the Building Reserve.**
- **$100,000 to the Watershed Management & Support Services Stabilization Reserve.**
- **$250,000 to a new Digital Transformation Reserve to be established and included in the Conservation Halton Reserves Policy.**
- **$702,213 to the Conservation Areas Capital Reserve.**
- **$64,000 to the Conservation Areas Stabilization Reserve**

And

THAT a transfer of $137,589 to the Debt Financing Charges Reserve **be approved for the budget amount in excess of actual 2019 debt financing charges expense.**

And

THAT the Conservation Halton Board of Directors **receive for information the Budget Variance Report for the year ended December 31, 2019.**

Carried

5.3 2019 YE Investments and Investment Revenue
(Report #: CHBD 04 20 12)

CHBD 04 04 Moved by: Jim Sweetlove

Seconded by: Jean Williams

THAT the Conservation Halton Board of Directors **approve the allocation of investment revenue of $377,835 to operating funds and to reserves as noted in the report;**

And

THAT the staff report on 2019 Investments and Investment Revenue dated April 23, 2020 **be received for information.**

Carried

5.4 2019 YE Capital Projects
(Report #: CHBD 04 20 13)

CHBD 04 05 Moved by: Zobia Jawed
Seconded by: Rob Burton

THAT the Conservation Halton Board of Directors **approve the closing of capital projects as identified in the staff report dated April 23, 2020.**

Carried

5.5 Policy Repeal and Modification – Policy 4.2.5 Spills
Conservation Halton Policies and Guidelines for the Administration of Ontario Regulation 162/06 and Land Use Planning Policy Document
(April 27, 2006 as amended February 25, 2016)
(Report #: CHBD 04 20 14)

CHBD 04 06 Moved by: Mike Cluett
Seconded by: Joanne Di Maio

THAT the Conservation Halton Board of Directors **repeals the existing Policy 4.2.5 contained in "Conservation Halton Policies and Guidelines for the Administration of Ontario Regulation 162/06 and Land Use Planning Policy Document (April 27, 2006 as amended February 25, 2016)" and approves a new interim Policy 4.2.5 which outlines a general policy approach for dealing with proposed development within spill areas.**

Carried

5.6 RFP 021020 automated gates – Conservation Halton)
(Report #: CHBD 04 20 17)

CHBD 04 07 Moved by: Cathy Duddeck
Seconded by: Allan Elgar

THAT the Conservation Halton Board of Directors **approve the supply & Install contract to Logic-Controle Inc. in the amount of $272,000.00 for installation of Automated Security Gates at all Conservation Halton park locations in accordance with RFP 021020.**

Carried

6. CAO Verbal Update/Presentation

6.1 2019 Year in Review
(Presentation by Hassaan Basit, CAO)

7. Other Business

No other business was presented.

8. IN CAMERA

THAT the Conservation Halton Board of Directors **convene IN CAMERA**

CHBD 04 08 Moved by: Marianne Meed Ward
Seconded by: Jean Williams

8.1 Legal Matter
(Report #: CHBD 04 20 15)

8.2 Personnel Matter
(Report #: CHBD 04 20 16)

CHBD 04 09 Moved by: Rob Burton
Seconded by: Moya Johnson

THAT the Conservation Halton Board of Directors reconvene in public forum.

Carried

CHBD 04 10 Moved by: Marianne Meed Ward
Seconded by: Steve Gilmour

THAT the Conservation Halton Board of Directors **direct staff to proceed as discussed In Camera.**

Carried

9. Adjournment

CHBD 04 11 Moved by: Jean Williams

That the Conservation Halton Board of Directors video conference **be adjourned at** 4.40 p.m

Carried

MEETING NO: # 01 20 Finance & Audit Committee Meeting

MINUTES

A meeting of the Finance & Audit Committee was held on June 4, 2020 at 9:30 a.m. via Zoom videoconference.

Present: Rob Burton
Mike Cluett
Joanne Di Maio
Moya Johnson
Jim Sweetlove
Gerry Smallegange

Staff Present: Hassaan Basit, CAO/Secretary- Treasurer
Marnie Piggot, Director of Finance,
Adriana Birza, Manager CAO Office
Lawrence Wagner, Senior Director, Corporate Services

1. Acceptance of Agenda as distributed

FA 01 01 Moved by: Moya Johnson
Seconded by: Joanne Di Maio

THAT the **Agenda be accepted as distributed.**

Carried

2. Disclosure of Pecuniary Interest for Finance & Audit Committee

There was **no** disclosure of pecuniary interest.

3. Consent Items

Roll Call & Mileage

Consent Items were adopted

4. Action Items

4.1 Election of Officers for 2020

The CAO/Secretary-Treasurer assumed the Chair.

4.1.1 The CAO/Secretary-Treasurer called for a motion to appoint Election Scrutineers to count the ballots for the election of Chair and Vice Chair.

FA 01 02 Moved by: Moya Johnson
Seconded by: Joanne Di Maio

THAT Marnie Piggot, Director, Finance, and Adriana Birza, manager CAO Office **be appointed as scrutineers in the event of an election and that all ballots be destroyed by the scrutineers afterwards**.

Carried

4.1.2 The CAO/Secretary-Treasurer called for nominations for the position of Chair of the CH Finance & Audit Committee for 2020.

It was Moved by Gerry Smallegange that Rob Burton be nominated for the position of Chair for 2020.

The CAO/Secretary-Treasurer called for nominations for a second time. There were no nominations.
The CAO/Secretary-Treasurer called for nominations for a third time. There were no nominations.

The CAO/Secretary-Treasurer called for a motion to close nominations for the position of Chair of CH Finance & Audit Committee for 2020.

FA 01 03 Moved by: Moya Johnson
Seconded by: Joanne Di Maio

THAT nominations **be closed for the position of Chair of CH Finance & Audit Committee 2020.**

Carried

Rob Burton confirmed he would allow his name to stand and thanked all present.

The CAO declared Rob Burton, by acclamation, to the position of Chair of CH Finance & Audit Committee for 2020.

4.1.3 The CAO/Secretary-Treasurer called for nominations for the position of Vice Chair of CH Finance & Audit Committee for 2020.

It was Moved by Gerry Smallegange that Jim Sweetlove be nominated for the position of Vice Chair of CH Finance & Audit Committee for 2020.

The CAO/Secretary-Treasurer called for nominations for a second time. There were no nominations.
The CAO/Secretary-Treasurer called for nominations for a third time. There were no nominations.

The CAO/Secretary-Treasurer called for a motion to close nominations for the position of Vice Chair of CH Finance & Audit Committee for 2020.

FA 01 04 Moved by: Moya Johnson
Seconded by: Joanne Di Maio

THAT nominations be closed for the position of Vice Chair of CH Finance & Audit Committee for 2020

Carried

Jim Sweetlove confirmed he would allow his name to stand and thanked all present.

The CAO declared Jim Sweetlove, by acclamation, to the position of Vice Chair of CH Finance & Audit Committee for 2020.

4.2 2021 Preliminary Budget
Report #: FA 01 20 01

FA 01 05 Moved by: Gerry Smallegange
Seconded by: Moya Johnson

That the Finance and Audit Committee **recommend to the Conservation Halton Board of Directors that the attached 2021 preliminary budget be approved for budget discussion purposes with funding watershed municipalities that include the Region of Halton, City of Hamilton, Region of Peel and Township of Puslinch.**

Carried

5. Other Business

There was no other business to discuss

7. Adjournment

FA 01 06 Moved by: Gerry Smallegange

THAT the CH Finance & Audit Committee meeting **be adjourned at 9:55 a.m.**

Carried

Conservation Halton

June 2020

REPORT TO: Conservation Halton Board of Directors

REPORT No: # CHBD 05 20 01

FROM: Mark Vytvytskyy, Director, Park & Operations

DATE: June 25, 2020

SUBJECT: **Kelso Dam Update (final)**

MEMO

This briefing memo is in response to the following resolutions that were made during the Conservation Halton Board of Directors meeting on April 28, 2016:

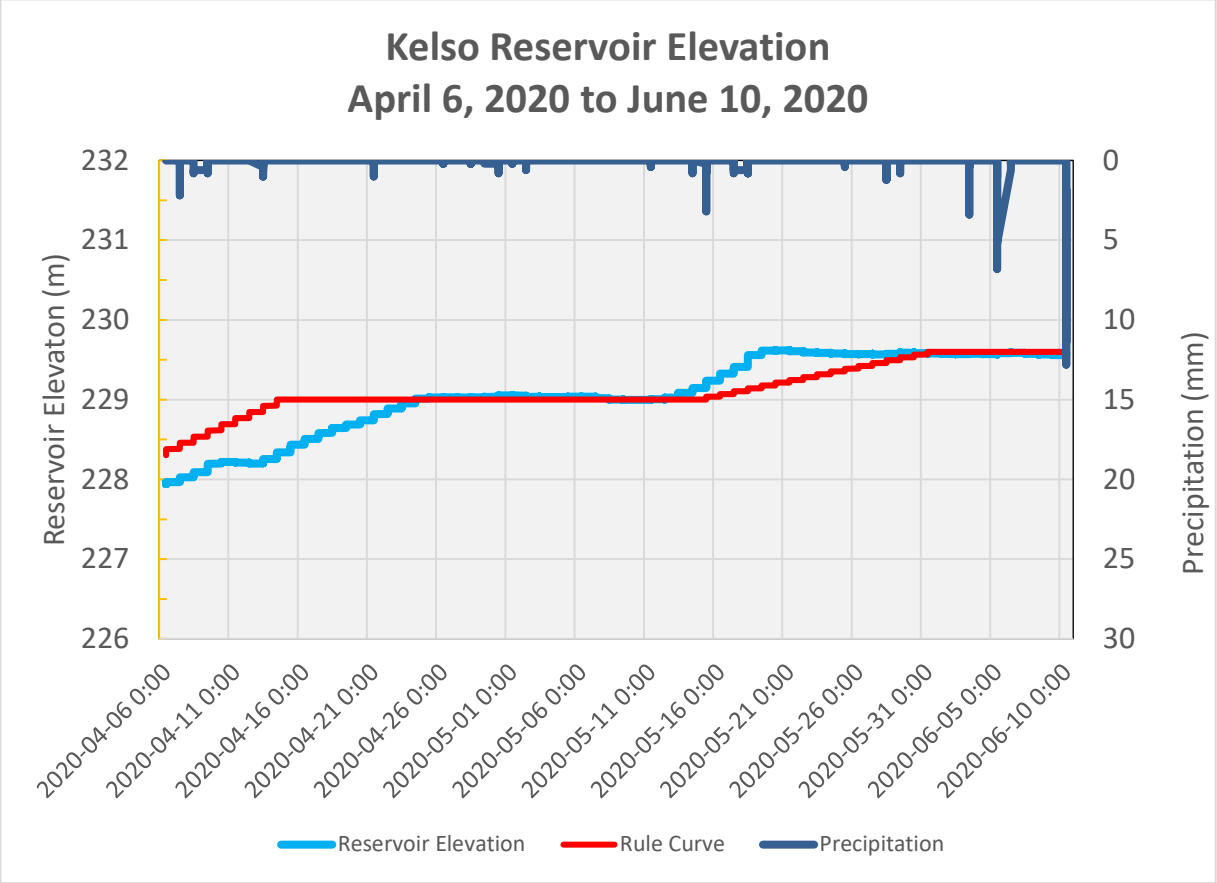
- The Conservation Halton Board of Directors **direct staff to provide monthly updates as to the status of Kelso Dam, including water levels, plume sightings, project progress and any remedial actions being undertaken;** and
- The Conservation Halton Board of Directors **direct staff to work with the Ministry of Natural Resources and Forestry, Halton Region and Hatch to expedite, to the extent possible, the permanent remedial measures required to mitigate the dam breach risk at the Kelso Dam.**

Kelso Reservoir Water Levels and Monitoring

As noted in the previous Kelso Dam Update report dated April 23, 2020, monitoring was reduced to pre-construction conditions as all remaining construction activities have been completed. Conservation Halton staff continue to monitor and record the conditions at the Kelso dam as follows:

- Automated and continuous recording of rainfall, air and water temperature, reservoir water level, storage volume and discharge and piezometer (groundwater) readings within the earthen embankment with automated alarming of programmed thresholds; and
- Daily remote visual monitoring of the outlet structure, dam embankments and completed downstream outlet works using web cameras; and
- Weekly onsite visual inspections of the outlet structure, dam embankments and completed downstream outlet works.

The enclosed chart illustrates the recorded water levels within the Kelso reservoir from April 6, 2020 to June 10, 2020 over which time CH staff have not observed or recorded any anomalies or data outside the normal range of operation.



Recent Work and Next Steps:

The Kelso reservoir level is being maintained at the prescribed summer water level (pre-2015) and will remain at this elevation until mid-September. All remaining construction activities identified in the previous Kelso Update report have now been completed including the following:

- Final grading and hydro-seeding;
- Exclusionary fencing;
- Guard rail and curve widening on East side;
- Dam crest asphalt removal and repaving; and
- Cleanup and demobilization.

No further construction activity associated with the Kelso Dam rehabilitation project is anticipated.

Status Report

DETAILS	
Project Name	Kelso Dam Rehabilitation and Repairs
Executive Sponsor	Hassaan Basit
Business Owner	Mark Vytvytskyy
Project Manager	Mark Vytvytskyy
Start Date	June, 2015
Finish Date	June, 2020
Project Phase	Execution
Reporting Period	2020-05-12 – 2020-06-11
% Complete	99%

KEY INDICATORS	
Overall Status	**Green**
Scope	**Green**
Budget	**Green**
Schedule	**Green**
Resources	**Green**

FINANCIAL TRACKING	
Budget	**$8,365,000**
Actual Cost (AC)	**$8,260,000**
Estimate to Complete (ETC)	**$0**
Estimate at Completion (EAC)	**$8,260,000**

Activities	
Overall Status Comment	• The project was initiated in June, 2015 and required engineering investigation, analysis and design to support construction. Construction was completed in two (2) phases to expedite activities where phase 1 included items that could be completed without additional assessment or permitting. Phase 2 construction is ongoing with Dufferin (contractor) and Hatch (owner's engineer and contract administrator).
Activities Completed (past 4 weeks)	• Fill and topsoil placed to final grade • Asphalt paving of the dam crest • Curve widening at the east limit of the dam • Perimeter fencing installed
Activities in Progress (pending now)	• Contractor performing final punch list items
Upcoming Activities (next 4 weeks)	• Hydroseeding anticipated for June 16 and 17 • Final acceptance walkthrough planned for late June • Submission of Substantial and Final completion by the contractor • Close-out documentation by DCC, CH and Hatch

Risks					
Risk	**Status/ Impact**	**Mitigation Strategy**	**Date raised**	**Resolve by**	**Owner**
Weather	**Low**	**None**	**Oct 2019**	**Scheduled Execution**	**Dufferin**

Issues					
Issue	**Status/ Impact**	**Action required**	**Date raised**	**Resolve by**	**Owner**
Impacts to adjacent well owners	**Low**	**Monitor well conditions, maintain frequent communication with property owner, report to MECP**	**Oct 2019**	**Ongoing**	**Mark Vytvytskyy**

Status Report

Key Milestones				
Milestone/Deliverable Description	Progress % Complete	Original Planned Start Date	Original Planned Finish Date	Actual / Projected Finish Date
Site Preparation & Environmental Measures	100%	*	*	March, 2019
Flow Diversion	100%	*	*	May, 2019
Cut off Grouting	100%	*	*	March, 2019
Dewatering & Sheetpiles for Groundwater Mitigation	100%	*	*	November, 2019
Stilling Basin	100%	*	*	December, 2019
Site Restoration	90%	*	*	June, 2020

**Note – Project was scheduled to start May, 2017 however due to need to mitigate groundwater to support construction, project delayed*

Conservation Halton

June 2020

REPORT TO: Conservation Halton Board of Directors

REPORT NO: # CHBD 05 20 02

FROM: Barbara J. Veale, Director, Planning & Watershed Management

DATE: June 25, 2020

SUBJECT: **Proposals to amend Ontario Regulation 244/97 and the Aggregate Resources of \ Ontario Provincial Standards under the Aggregate Resources Act**
ERO No. 019-1303
CH File No. PPO 052

MEMO

On September 20, 2019, the Ministry of Natural Resources and Forestry (MNRF) released a proposal on the Environmental Registry (ERO 019-0556) recommending changes to the provincial aggregate resources framework.

Conservation Halton provided comments to the MNRF noting concerns with the process for existing operators that want to extract aggregates within the water table, the lack of cumulative effects assessments, a provincial data management strategy and proposed notification and consultation requirements. Changes to the Aggregate Resources Act were made effective December 10, 2019.

On February 12, 2020, the MNRF posted a proposal on the Environmental Registry (ERO 019-1303) recommending amendments to Ontario Regulation 244/97 and the Provincial Standards under the Aggregate Resources Act. The proposal recommends changes for applications to establish a new aggregate extraction sites, prescribed rules for minor excavations, and how new and existing sites are managed and operated, including amendments to expand an existing site below the water table. The public comment period for the proposed changes was extended until May 15, 2020.

The current proposal provides an overview of proposed changes to the 'Standards' for ARA applications. Conservation Halton submitted comments in response to the proposal on May 11, 2020. Many of these comments reinforce previous submissions made by Conservation Halton in response to earlier postings related to proposed ARA changes. Key comments focus on pre-consultation; public notification, data collection and public accessibility to data; cumulative impact assessment; and updated technical guidelines. Additional comments are provided regarding the scope of technical reports and requirements related to notification, process, standards, conditions and prescribed rules, and reporting. Conservation Halton is urging the Province to ensure that actual changes to Ontario Regulation 244/97 be posted for public review and comment prior to approval. A copy letter submitted to the Province from Conservation Halton is attached.

Conservation Halton

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2596 Britannia Road West
Burlington, Ontario L7P 0G3
conservationhalton.ca

Protecting the Natural Environment from Lake to Escarpment

May 11, 2020

Resource Development Coordinator
Ministry of Natural Resources and Forestry
Natural Resources Conservation Policy Branch
Resource Development Section
300 Water Street
2nd Floor, South tower
Peterborough, ON
K9J 3C7

BY EMAIL

RE: Proposed Changes to Ontario Regulation 244/97 under the Aggregate Resources Act
ERO No. 019-1303
CH File No.: PPO O52

Thank you for extending the opportunity for responses to the proposed amendments to Ontario Regulation 244/97 to May 15, 2020. Conservation Halton (CH) has reviewed the proposed changes and offers the following comments:

General Comments:

Pre-consultation

It has been CH's experience that pre-consultation is critical for managing applicant and agency expectations and expediting the approval process. CH recommends that pre-consultation with the municipalities and conservation authorities (where they exist) be mandatory to ensure that satisfactory terms of reference are prepared for technical studies for new sites and amendments to extract below the water table.

Methods of Notification, Submission of Applications and Forms, and Reports

Current circumstances have facilitated changes to the standard methods used for public notification and submission of applications, forms and reports and their review by municipalities and agencies. Due to COVID-19, municipalities and other agencies have adapted their internal processes to accept and review materials digitally. This has resulted in new-found efficiencies in the time it takes to accept and circulate materials for review. Moving forward, CH requests that the Ministry of Natural Resources and Forestry (MNRF) consider reducing the number of paper copies required to be circulated and to move towards electronic submissions as a new standard.

Likewise, requirements for notification to the public should also consider the use of digital media as the general public is moving away from printed newspapers and other options for public involvement and dialogue in addition to a public information session (e.g., Sections 1.3.2 and 3.3.3)

Data Management and Provincial Open Date Directive

The Open Data Directive by the Province supports the move away from paper copies of reports and data. The MNRF should implement a comprehensive digital data collection and management system for data collection and sharing.

Public transparency for aggregate reporting is important. Given the current transition to on-line reporting, CH recommends that the MNRF explore opportunities to standardize digital data bases for monitoring data and make results readily available to the public through a web portal. This would improve public access to data and put less demand on staff time and resources. An option to provide members of the public with the opportunity to request monitoring data from the MNRF staff could be provided for those who do not have on-line access.

In addition, the proposal includes an option for applicants to use data from other nearby operations. Availability of digital data for operations collected by other parties in the vicinity of the application would improve efficiencies and accessibility. Restrictions on access to the full data base can be put in place to ensure the privacy of any proprietary information and applicants should be required to enter into a data sharing agreement to allow access to key information.

Cumulative Impact Assessment for Below Water Table Applications

There is potential for combined effects of aggregate operations in watersheds where they are in proximity, particularly with respect to surface water quantity and quality and natural heritage systems. Assessment of the cumulative impacts below the water table is not addressed in the proposed changes to the ARA standards. CH recommends that the hydrological and hydrogeological assessment prepared by Qualified Persons should be conducted for amendments to expand operations below the water table or for any new proposals below the water table that are clustered within the same catchment area. The purpose of this assessment would be to demonstrate that there would be no offsite or onsite impacts (through avoidance or mitigation) to water quality and quality that sustain the natural environment or affect local municipal drinking water sources on a reach or sub-watershed basis.

Technical Guidelines

Given that the Province has Technical Guidelines related to Hazards (e.g., Natural Heritage Reference Manual; Technical Guide – River & Stream Systems; Erosion Hazard Limit, Technical Guide – River and Stream Systems; etc.), CH recommends that the standards include a reference that a Qualified Person complete reports in accordance with the most recent version of these guidelines and any applicable future provincial guidelines that may apply. This would expedite the review and comment process.

Next Steps

CH encourages the Province to ensure that changes to O. Reg. 244/97 be posted for public review and comment prior to approval. The proposed changes outlined in the materials are presented at a very high level. Further consultation on the detailed changes to the regulation is advised to provide municipalities, agencies, conservation authorities and other interested stakeholders the opportunity to comment.

Section 1.1.1 Water Report

CH recommends that MNRF consider the establishment of a maximum predicted elevation for the water table based on data collected over a longer period than a minimum of one year. Fluctuations in the water table occur from year to year as well as by season. The collection of water table data from pits or quarries near or adjacent to a proposed site should be used to supplement, not replace, data

from the proposed site. CH recommends that monitoring surface and ground water as well as natural features and functions should be required for a minimum of two years (2) for above water table proposal and a minimum of three years (3) for proposed below water table extraction. In addition, historical models and climate change scenarios should be considered and updated for determining appropriate management targets.

CH also recommends that the application process be enhanced to require below water table expansions and new proposals to be supported by a cumulative impact assessment, building on the collaborative work with the Ministries of Natural Resources and Forestry and Environment Conservation & Parks, Grand River Conservation Authority, and the aggregate industry, which was done for the Grand River watershed entitled "Cumulative Effects Assessment (Water Quality and Quantity) Best Practices Paper for Below-Water Sand and Gravel Extraction Operations in Priority Sub-watersheds in the Grand River Watershed, September 2010". This is particularly important in areas where there is a concentration of existing licenses or new applications below the water table or in drinking water vulnerable areas under the *Clean Water Act*. This would facilitate the consideration of potential significant impacts to surface and groundwater from multiple operations that may not be deemed singularly significant.

Clarification regarding the intent of the proposed changes to O. Reg 244/97 regarding study requirements is needed. CH recommends that the level of detail required for assessing impacts be specific, especially as it relates to protecting municipal drinking water sources, water budgets and cumulative impacts. Water budgets should be required for all applications below the water table as well as applications within 120 metres of Provincially Significant Wetlands and unevaluated wetlands or within 30 metres of other wetlands. Any Source Protection vulnerable areas and activities should also be noted, along with an assessment of potential impacts to drinking water sources.

It is proposed that the Water Report address the feasibility of mitigation. CH recommends that the proposed Water Report also require avoidance of impacts where possible, or mitigation, not just the feasibility of mitigation. Since land use planning mechanisms for review of ARA applications have been modified, the ARA standards and technical guidelines should align with PPS requirements to ensure the appropriate criteria is in place to protect quality and quantity of water and assess and prevent any potential threat or impacts to source water and local municipal drinking water supplies.

Similarly, CH recommends that the assessment of impacts use the same requirements for natural resource systems and water resource systems, (e.g., seepage areas, wetlands, significant groundwater recharge areas and highly vulnerable aquifers including some source water protection areas) as those incorporated into the provincial growth plan and municipal policies where they are more restrictive. Qualified Persons authorized to prepare an appropriate water report should include an ecologist in addition to a P. Geo or P. Eng.

Section 1.1.3 Natural Environment Report

The requirement to have the natural environment report align with current natural heritage policies in the Provincial Policy Statement and the four Provincial Plans is strongly supported. However, the natural environment report should also align with municipal Official Plans and adhere to the policies and setbacks contained therein, where they are more restrictive that the Provincial Plans. It is important that the natural environment report identify and address potential impacts on natural heritage systems (features and functions) both onsite and cumulatively in the system, not just "significant' features.

Section 1.1.8 Forestry Aggregate Pits

Amendments intended to streamline small operations under the *Crown Forest Sustainability Act* propose that the forest industry would no longer need to transition to an aggregate permit to continue operations beyond 10 years. It may be prudent to require yearly reports ensuring that exemption criteria and operating requirements under the current Forest Management Planning Manual are being adhered to.

Section 1.2.1 Site Plan Standards – Improving Flexibility

CH recommends that the items listed in this section be required to be located outside of established setback and natural features (see comments under Section 1.1.3)

1.2.2 Site Plan Standards - Modernization

CH recommends that a requirement specifying that 'clean" fill be used for pit or quarry rehabilitation located within a Wellhead Protection Area A or B, in accordance with a specific Table or MECP criteria be added in the standards.

Section 1.2.4 Prescribed Licence and Permit Conditions (New Sites)

The proposed change in the prescribed conditions to delay notifying the operators that other approvals might be required until after a licence or permit approval is issued may be problematic and cause further delays at the end of the licencing/permitting process. It is important that operators are aware of all the approvals required at the pre-consultation or early phase so that approvals can be sought in a timely fashion and extraction activities can begin once the license is granted. Should the conditions be changed to remove other approvals, another means to bring this to the operators` attention at the beginning of the process should be put in place.

Section 1.3.3. Objection Process on Private Land

CH recommends that municipalities and conservation authorities be provided the right to appeal to the Local Planning and Appeal Tribunal (LPAT) should concerns such as protecting municipal drinking water sources or the natural environment not be adequately addressed through the application process.

Section 1.3.4 Circulating New Applications to Agencies

Section 3.3.3 Amendment to Expand an Existing Site Below the Water Table

CH agrees that the list of agencies should be updated to reflect current government organization and responsibilities, including those of conservation authorities. Note that aggregate extraction adjacent to an area regulated by a conservation authority may impact the control of flooding, erosion and other hazards. In their roles under the *Conservation Authorities Act* and as agencies with delegated responsibility for the review of planning matters under Sections 3.1.1 – 3.1.7 of the Provincial Policy Statement – Natural Hazards, conservation authorities should not be precluded from providing technical comments related to potential impacts of extraction in areas adjacent to regulated areas as they relate to the creation of new natural hazards or the aggravation of existing natural hazards, both onsite and cumulatively throughout a drainage basin. In addition, in their capacity as a source protection authority, conservation authorities should be circulated new applications for review of any potential impact to sources of municipal drinking water. Through service agreements, conservation authorities may also provide technical review on behalf of municipalities for proposed aggregate licences and permit applications.

Section 2.1 Prescribed Rules for Minor Excavations

CH recommends that the rules for excavation on private lands and farm operations preclude the extraction of aggregates in Wellhead Protection Areas A and B. The standards should specify this prohibition for all proposed extraction areas to ensure the health and safety of drinking water sources.

Section 3.1.2 Dust

CH recommends that chloride-based dust suppressant be prohibited for dust control in pit and quarry operations. Chloride-based suppressant poses a risk to groundwater through leaching. Increased chloride levels in groundwater could contaminate water supply aquifers and private and municipal supply wells.

Section 3.3.1 Site Plan Amendment Process

CH recommends that a process be established which allows the Province to initiate a site plan amendment should new information become available, particularly for dormant or inactive licences where technical information has become outdated. Similarly, a process to review licences/permits on a periodic or regular basis to ensure that the operations continue to reflect current environmental and regulatory requirements should be introduced.

Section 3.3.3 Amendment to Expand an Existing Site Below the Water Table (additional comments)

CH recommends that a supplemental report to widen existing below water table extraction should be allowed for a specified and limited extent. A new application for large-scale widening should be required. All expansion below the water table should require a natural environment report to identify impacts to natural features and functions.

CH recommends that clarification regarding what happens after the two (2) year period when the applicant submits documentation be included. The proposed changes do not address how and when the Ministry will decide about the site plan amendment, the role of Ministry staff and criteria for referring outstanding objections to the LPAT. Clarification of the role of the Environmental Tribunal versus LPAT is also recommended.

Thank you for providing an opportunity to provide comments on the proposed changes to amend O. Reg. 244/97 and the Aggregate Resources of Ontario Provincial Standards under the *Aggregate Resources Act*. If you have any questions, please contact the undersigned.

Regards,

Barbara Veale

Barbara J. Veale, PhD, RPP, MCIP

cc. Kellie McCormack, Conservation Halton

Conservation Halton

June 2020

REPORT TO:	Conservation Halton Board of Directors
REPORT No: #	CHBD 05 20 09
FROM:	Katie Skillen, Associate Director Marketing and Communications
	Garner Beckett, Foundation Director
DATE:	June 25, 2020
SUBJECT:	**Free Parks visits for Hospital Healthcare workers in Halton**

MEMO

With 6 parks now operational using the online reserved park visits system, Conservation Halton has introduced Free reserved park visits for hospital-based healthcare workers in the region for a month, starting Tuesday June 9th.

The Parks for Healthcare program was created to give back to health care workers in the region who are facing great mental strain due to the COVID-19 pandemic. For many, parks and recreation closures means greatly reduced access to the mental health benefits of being in nature. In addition, our essential healthcare workers continue to face increased physical and mental stress. Our goal was to implement a safe trail access program that would allow health care workers special entry to the parks for their mental health and wellbeing.

This program was made possible, in part, with funding arrangements through the Conservation Halton Foundation. Funding partners Cogeco and the Burlington Community Foundation were willing to provide financial supports during this this challenging time to help ensure healthcare workers were given this opportunity.

As a result, Conservation Halton has partnered with Halton Healthcare (Milton, Oakville + Georgetown hospitals), and Joseph Brant Hospital to offer free reserved park visits for 1 month to 4800 healthcare workers, along with inclusion in our Corporate Membership program. Free visits are available on Tuesday and Thursday evenings at Mt. Nemo and Crawford Lake. This schedule was determined based on data from a post-visit survey with self-identified healthcare workers, and capacity analytics from our new Reserved Park Visits dashboard.

The program utilizes a specialized and dedicated website for the bookings (http://Parkvisit.ca/healthcare) where specific time slots have been set aside for Healthcare workers for the next 4 weeks. Members of the public will not be able to book the same timeslots at these two parks to ensure healthcare workers can take advantage of a safe park visit. Once we have a few evenings under our belt, the partnership will be promoted through twitter starting the week of June 15. We invite you to help us share the good news about this program as you see fit.

Conservation Halton

June 2020

REPORT TO: Conservation Halton Board of Directors

REPORT NO: # CHBD 05 20 03

FROM: Marnie Piggot, Director Finance

DATE: June 25, 2020

SUBJECT: **2021 Preliminary Budget and Forecasts**

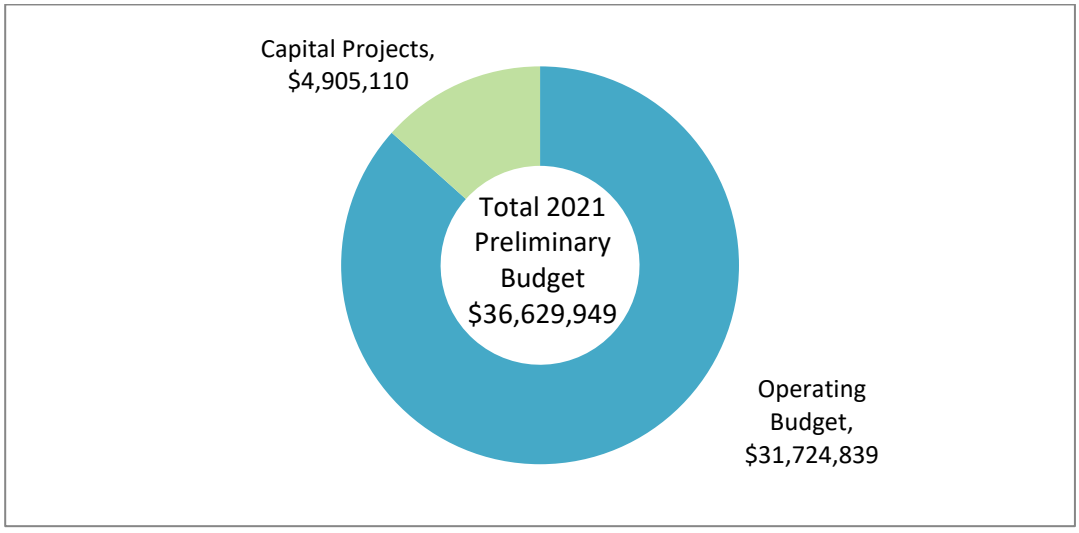
Recommendation

That the Conservation Halton Board of Directors approve **the attached 2021 preliminary budget for budget discussion purposes with funding watershed municipalities that include the Region of Halton, City of Hamilton, Region of Peel and Township of Puslinch.**

Executive Summary

The Finance & Audit Committee recommended at their June 4th meeting that the 2021 preliminary budget be forwarded to the Conservation Halton Board of Directors for approval and for budget discussion purposes with funding municipalities. The preparation of the 2021 preliminary budget and forecast considered Conservation Halton's strategic priorities, inflationary and growth-related pressures and potential COVID related impacts on Conservation Halton programs.

The 2021 preliminary budget of $36.6 million will allow Conservation Halton to continue to provide its core programs and services. The 2021 preliminary budget is made up of a $31.7 million operating budget and $4.9 million capital budget.



The 2021 preliminary budget has increased by $1.4 million over the total 2020 budget of $35.2 million. The budget increase has been partially offset through operating efficiencies achieved, increased grant and other funding for partnership projects in an effort to minimize the impact on municipal partners. Most of the budget continues to be funded through self-generated revenues and municipal funding remains at less than 30% of the total funding sources.

Municipal funding in the 2021 preliminary budget totals $10.4 million. This represents a 3% or $306,561 increase over last year but is below the 4.1% forecast amount for 2021.

The proposed funding increase considers the fiscal pressures faced by both Conservation Halton and its regional and municipal funding partners. The municipal funding increase includes an additional $39,300 for State of Good Repair levies for dams, channels and facility assets to gradually meet target levels established in the Asset Management Plans for these assets. The long-term operating and capital forecasts currently project future increases ranging from 3% to 4.5% annually.

Total Municipal Funding:	**Budget 2021**	**Budget 2020**	**$ Increase (Decrease)**	**% Increase**
Operating	$9,695,379	$9,221,118	$474,261	5.1%
Capital	257,000	464,000	(207,000)	-44.6%
	9,952,379	9,685,118	267,261	2.8%
State of Good Repair (SOGR) Levy - Dams & Channels; Buildings	478,500	439,200	39,300	8.9%
Municipal Funding total	**$10,430,879**	**$10,124,318**	**$306,561**	**3.0%**

The budget is segregated into Watershed Management & Support Services (WMSS) programs and the Conservation Areas, consistent with past budgets. The Conservation Areas recreation programs and capital works do not receive municipal funding. The Conservation Areas operating surplus proposed in the 2021 preliminary budget is $276,286. This is down significantly from the 2020 forecasted budget surplus of $968,411.

The decrease in the parks operating surplus for 2021 can be attributed to an increase in staffing costs and projected lower total program revenues. Revenue estimates have been lowered for some programs to match historical trends and potential COVID impacts.

Compensation and benefits increases included in the 2021 preliminary budget include:

- A 1% inflation adjustment;
- Adjustment to 95% of the salary band approximating actual salary costs; and
- While there is no increase in tax-supported staffing, there is an overall increase of 4.1 full time equivalent (FTE) staff positions in parks. See the Staff Complement changes chart page 5 for a detailed breakdown.

Conservation Halton staff have prepared the 2021 preliminary budget for review by the Finance & Audit Committee and the Conservation Halton Board of Directors prior to budget submissions and regional staff meetings which typically occur between July and September.

The 2021 Budget & Business Plan book will be developed for the final 2021 budget review and approval in October by the Finance & Audit Committee and the Board of Directors. There may be further changes to the 2021 budget as COVID impacts become more quantifiable.

Financial attachments to this report include the 2021 preliminary budget summary, operating and capital forecasts and reserve continuity schedule.

A key service target in Conservation Halton's Strategic Plan is to limit operating and capital municipal funding increases to regional budget guidelines. Halton Region staff typically provide their Budget Direction report to Council in July including the guideline for boards and agencies. The Halton Region guideline, comprised of expected inflation and assessment growth, provided for 2020 was 3.7% and it is anticipated that the 2021 guideline will be lower. Peel Region staff recently advised that Council has not recommended a budget target at this time given the current economic uncertainty.

Report

2021 Preliminary Operating Budget

The operating budget of $31.7 million provides for an investment of $17.9 million in Watershed Management and Support Services programs and an investment of $13.8 million into the Conservation Areas. The following chart shows the distribution of the operating budget by department.

Investing in Watershed Management & Support Services

The WMSS 2021 preliminary operating budget expenses total $17.9 million. The budget and municipal funding increase is partially funded by program revenue, grants, reserves and chargebacks. Municipal

operating funding for WMSS programs is proposed to increase by $474,261 for programs and services and by $39,300 to fund increases to the State of Good Repair Levies for dams, channels and facilities.

Major drivers of the WMSS municipal funding increase include:

- Staff compensation (inflation, adjustments) & benefits costs of $475,473
- Planning and Permit revenue reduction of $331,100. The revenue was adjusted to match historical results.

The increases are partially offset by:

- An increase in other program revenue and grants of $256,643

Investing in our Parks

The Conservation Areas 2021 operating budget provides for an investment of $13,841,587 into the Conservation Areas. Operating expenses have increased in the Conservation Areas 2021 operating budget by $546,795. A large portion of the higher operating expenses are related to staffing costs which have increased by $275,000. Part time/seasonal staff costs have also been adjusted in this budget to better reflect or match historical spending. The increase in expenses is funded entirely by park program revenue.

The chargeback to the Conservation Areas for support services has increased in the 2021 operating budget by $183,500 to $1,376,900. The increase is related to support service staffing changes and the estimated allocation of time spent on park programs.

Program and other funding revenue have decreased by $145,330 to $13,525,320 from the 2020 Budget amount of $13,670,650. Program revenue includes adjustments based on the three-year average of historical actual amounts and partially considers COVID impacts. The proposed revenue amounts assume average fee increases to continue to transition to full cost recovery.

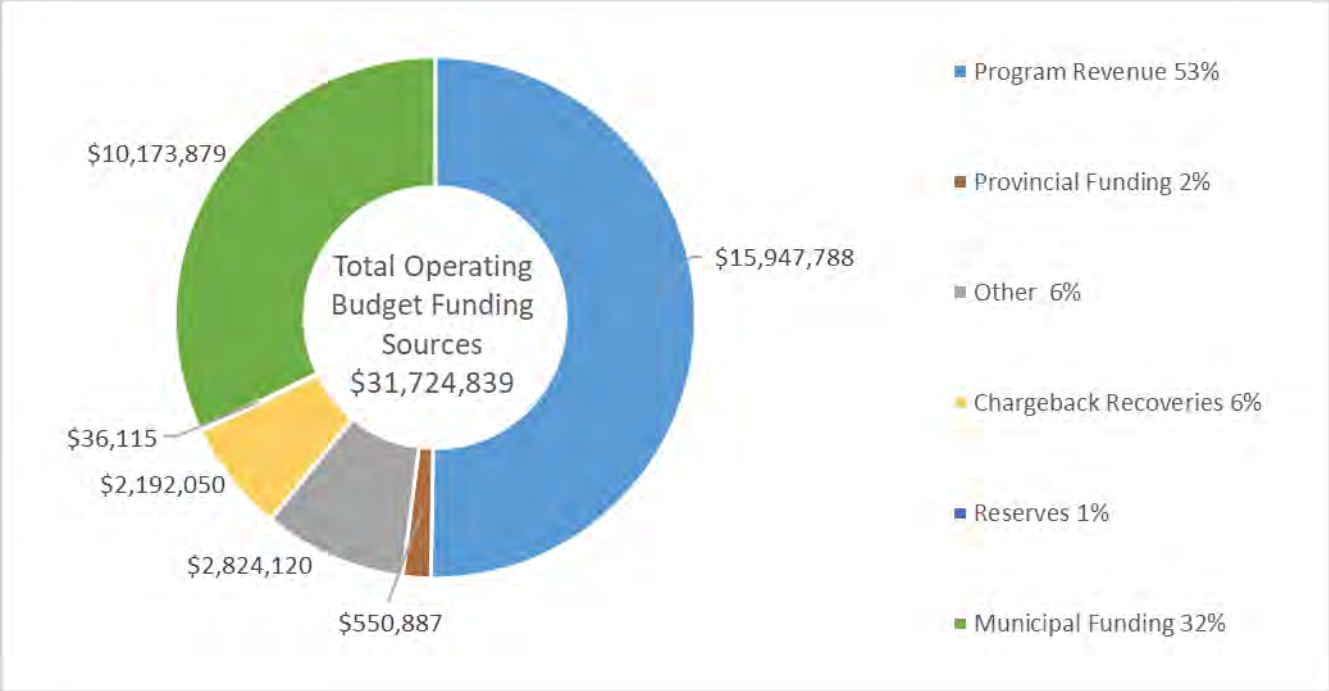
Staff Complement Changes

The 2021 operating budget provides for an increase of 4.1 FTE positions. A summary of the changes is provided below.

Staffing Overview Summary	2020 Approved FTE	Service Adjustment	Reallocation of Staff	2021 Total FTE	Net Change 2021 vs 2020
Watershed Management & Support Services (WMSS)					
Full-time	105.4	1.0	-1.0	105.4	0.0
Part-time/Contract	7.8	1.2	-1.2	7.8	0.0
Total WMSS	113.2	2.2	-2.2	113.2	0.0
Conservation Areas					
Full-time	37.0	-2.8	1.0	35.3	-1.8
Part-time/Contract	96.5	4.7	1.2	102.4	5.9
Total Conservation Areas	133.5	1.9	2.2	137.7	4.1
Total Full-time	142.4	-1.8	0.0	140.7	-1.8
Total Part-time/Contract	104.3	5.9	0.0	110.2	5.9
Total Staff FTE's	246.7	4.1	0.0	250.9	4.1

Sources of Budget Funding

Conservation Halton is proactive at generating funding through various sources including self-generated revenues to mitigate the financial impact to our funding municipalities. The 2021 operating budget funding sources are consistent with prior years with most of the funding being derived from self-generated revenues and less than one third of the operating budget funded by municipal operating funding of $10.2 million.



Apportionment of Municipal Funding

Municipal funding for operating, capital and State of Good Repair levy totals $10,430,879. Municipal funding is apportioned to the Region of Halton, City of Hamilton, Region of Peel and Township of Puslinch according to the area and proportional current value assessment (CVA) of the municipality falling within the Conservation Halton watershed.

Updated current value assessment data will be received from the Province in early September. For purposes of allocating the 2021 preliminary budget, the 2020 municipal apportionment percentages have been used as follows:

Municipality:	Apportion-ment % 2021 (2020 % assumed)	Municipal Funding 2021	Apportion-ment % 2020	Municipal Funding 2020	% Increase
Region of Halton	87.7576%	$9,153,890	87.7576%	$8,884,859	3.0%
Region of Peel	4.8142%	502,163	4.8142%	487,405	3.0%
City of Hamilton	7.2109%	752,160	7.2109%	730,054	3.0%
Township of Puslinch	0.2173%	22,666	0.2173%	22,000	3.0%
	100.0000%	**$10,430,879**	**100.0000%**	**$10,124,318**	

State of Good Repair Levy

The operating budget includes a request for a State of Good Repair (SOGR) Levy of $478,500, an increase of $39,300 over the 2020 budget amount. This increase is consistent with the 2021 forecast amount included in the 2020 budget. The 2021 State of Good Repair Levy consists of $376,500 for dams and channels assets and $102,000 for buildings and facility assets. The State of Good Repair

Levy amounts will be transferred to the Watershed Management Capital and Building SOGR Reserve to fund 2021 and future capital works.

Asset Management (AM) Plans have been completed for Dams and Channels and Facilities. The Asset Management Plan for the remaining capital assets has been completed. The Asset Management Plans identified the annual investment required to maintain these assets in a state of good repair. Based on the phase in of the State of Good Repair levy amounts, some municipal debt financing is still required over the ten-year forecast period until the SOGR levy reaches target levels established in the AM Plans.

Debt Financing, Debt Financing Charges and Debt Capacity

Municipal debt financing included in the 2021 preliminary budget of $526,500 is comprised of 50% of the Morrison-Wedgewood Channel spill prevention design estimated costs of $53,000 and low impact development (LID) system improvements at the Administration Office of $500,000. Dams and channel repair costs are assumed to be funded 50% municipally and 50% through provincial Ministry of Natural Resource and Forestry (MNRF) Water and Erosion Control Infrastructure (WECI) funding. The LID system improvements were recommended in the Administration Office landscape master plan.

The Debt Financing Charges in the 2021 preliminary operating budget of $618,333 includes $568,333 municipal debt financing charges and $50,000 for principal and interest payments on the land acquisition loan of $858,000 received in 2015 from the Hamilton Community Foundation. The loan balance at December 31, 2019 was $409,636. The loan matures in December 2020 and it has been assumed for budget purposes this loan will be renewed at similar terms.

Municipal debt financing charges for the 2021 preliminary budget were provided by Halton Region staff and were included in the 2020 budget forecast. Debt financing charges are subject to change when updated by Halton Region staff after the preliminary budget amounts are submitted in July. Debt financing charges are currently calculated based on Halton Region's investment earning rate and range between 3.0%-3.2%, with repayment over thirty years for the Kelso Dam Capital Project and twenty years for other projects. Projects that have been debt financed to date include significant dams and channels capital projects and Administration Office major renovations.

The total long-term debt balance is currently $5,671,453. This amount includes 50% Kelso Dam capital project financing for costs incurred to December 31, 2019. The estimated remaining debt financing for 50% of the Kelso Dam capital project 2020 costs is approximately $250,000. The increase in debt charges related to the Kelso Dam debt financing was included in the 2020 budget and forecast amounts so the increased long-term debt should not impact the debt capacity ratio estimated for 2021 of 4.8%. Conservation Halton has approved a debt capacity ratio of 10% in its Budget Principles though 25% is permitted under Ontario Regulations for municipalities.

Reserve Funding

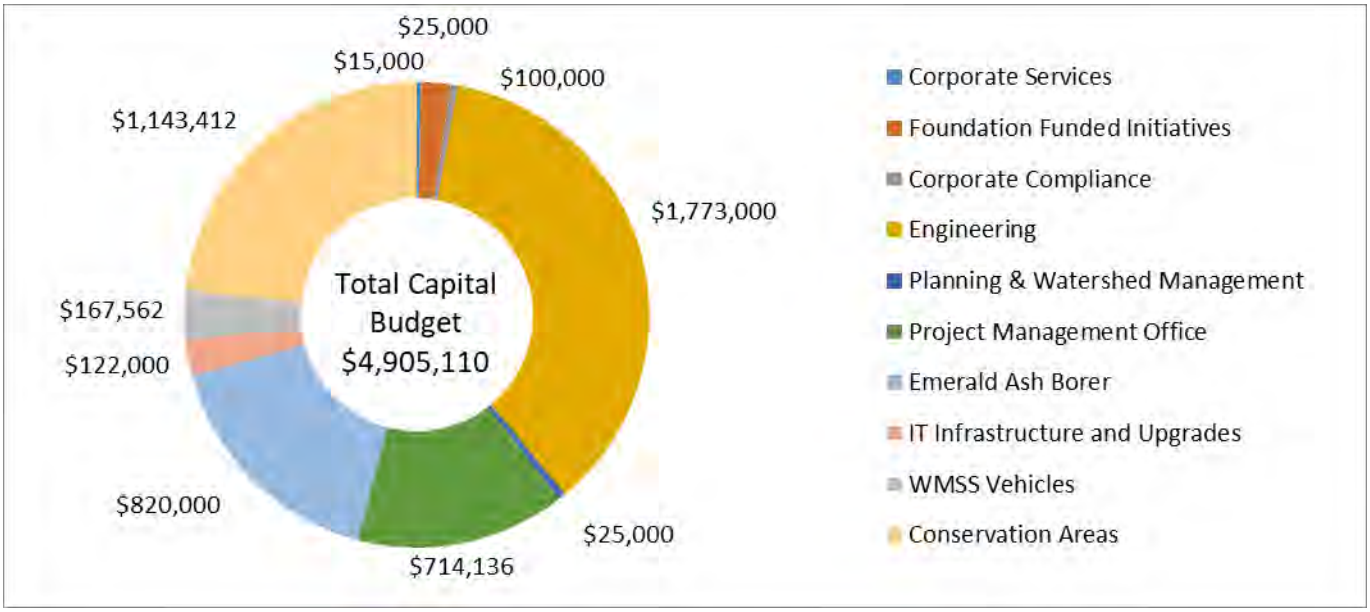
The reserve summary below lists the projected reserve balances at December 31, 2021 and the proposed transfers to and from reserves in the 2021 budget. A reserve continuity schedule with reserve balances to 2030 is also provided in the attachments.

Conservation Halton Reserves	Reserves Projected Balance Dec. 31, 2020	Contribution from Municipal Funding	Contribution from Surplus	State of Good Repair Levy	Contribution to Capital Projects	Contribution to Operating Expenses	Reserves Projected Balance Dec. 31, 2021
Watershed Management & Support Services							
Vehicle and Equipment	720,083				(167,562)		552,521
Building	230,128			102,000	(70,136)		261,992
Building - State of Good Repair	262,293						262,293
Watershed Management Capital - Municipal Funds and Self Generated Funds	1,006,442			376,500	(575,000)		807,942
Watershed Management & Support Services Stabilization	793,193						793,193
Capital Projects - Debt Financing Charges	472,670						472,670
Digital Transformation	250,000						250,000
Legal - Planning & Watershed Management	258,891						258,891
Legal - Corporate	200,000						200,000
Water Festival	158,911				-	(18,615)	140,296
Land Securement	59,537	25,000					84,537
Property Management	80,040						80,040
Stewardship and Restoration	342,399				(144,000)	(17,500)	180,899
Conservation Areas							
Capital	2,963,738		276,286		(1,143,412)		2,096,612
Stabilization	1,000,568						1,000,568
Total Reserves	**8,798,893**	**25,000**	**276,286**	**478,500**	**(2,100,110)**	**(36,115)**	**7,442,454**

2021 Capital Budget Summary

The 2021 capital budget represents an investment of $4.9 million into infrastructure and studies to provide programs and services in the watershed of $3.8 million and conservation areas of $1.1 million.

The capital budget provides funding for projects such as the rehabilitation of flood control infrastructure, updating of flood plain mapping, investments in digital transformation and technology upgrades, vehicle and equipment replacements, development of studies and plans, managing the impacts of Emerald Ash Borer, land management initiatives and infrastructure improvements at the Conservation Areas.



The municipal capital funding required for WMSS capital projects has decreased in 2021 by $207,000. The total funding required for 2021 is $257,000. This significant decrease in municipal capital funding is primarily related to funding decreases in Information Technology and Flood Forecasting capital projects proposed for 2021.

The WMSS 2021 preliminary capital budget consists of the following department project costs:

Capital - Watershed Management & Support Services (WMSS)	2020 Budget Expenses	2021 Preliminary Budget Expenses
Corporate Services		
Lidar Imagery	40,000	-
Ortho Imagery	-	15,000
IT Infrastructure & Digital Transformation	224,000	122,000
Website Upgrade	100,000	-
Corporate Compliance		
Giant's Rib Geopark	100,000	-
Clappison & Waterdown Woods	25,000	25,000
Engineering		
Dams & Channels Maintenance Projects	1,312,373	1,203,000
Flood Forecasting & Warning Program	115,000	70,000
Floodplain Mapping Update	330,000	500,000
Planning & Watershed Management		
Watershed Planning	25,000	25,000
Project Management Office		
Administration Office Renovations	150,000	500,000
Facility Major Maintenance	102,000	70,136
Operations Centre - Capacity Study/Design	100,000	-
Speyside Weir Removal	32,000	144,000
Emerald Ash Borer	862,243	820,000
Vehicle and Equipment Replacement	194,339	167,562
Other Foundation Funded Projects	100,000	100,000
TOTAL CAPITAL WMSS	3,811,955	3,761,698

Investing in our Parks

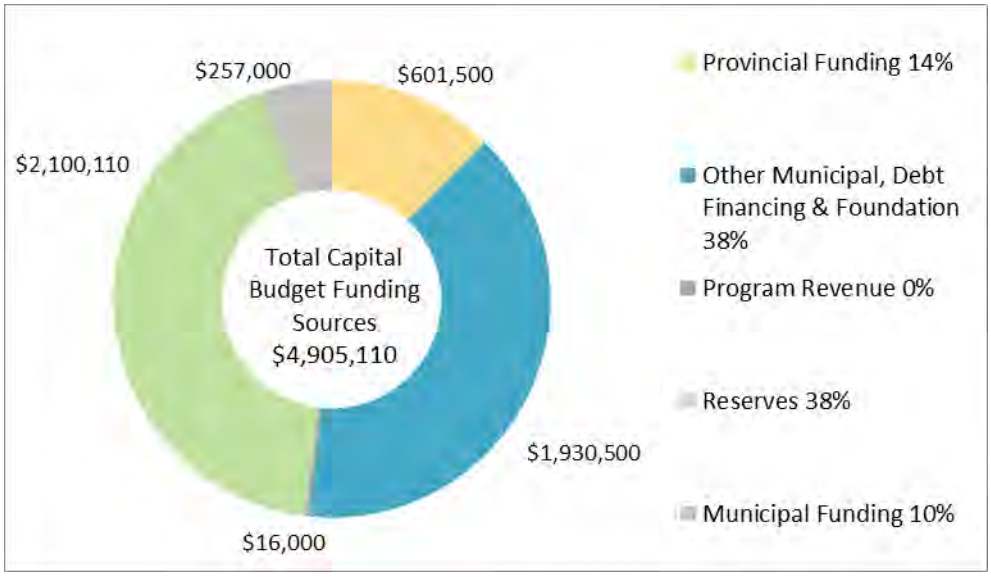
The proposed capital budget provides for an investment of $1.1 million into the Conservation Areas. Capital project expenditures are funded by the Conservation Areas Capital Reserve.

The Conservation Area 2021 preliminary capital budget includes:

Capital - Conservation Areas	2020 Budget Expenses	2021 Preliminary Budget Expenses
Skihill Improvements	100,000	500,000
Facility Major Maintenance & IT Infrastructure	405,000	495,000
Vehicle and Equipment Replacement	165,556	148,412
Developer Contribution Works	250,000	-
TOTAL CAPITAL CONSERVATION AREAS	920,556	1,143,412

Sources of Capital Budget Funding

A summary of the 2021 proposed capital funding sources is provided in the chart below:



Other municipal funding from Halton Region for 2021 is for the Emerald Ash Borer tree removal project for $804,000 and Flood Plain Mapping project for $500,000. The amounts are consistent with the business plans submitted to Halton Region Council for these projects. Debt financing totals $526,500 for the channel repairs and Administration Office improvements projects in the 2021 capital budget.

2021 Budget and Operating Forecast 2022-2030

Key assumptions and drivers included in the budget and operating forecast are as follows:

- The addition of two new staff positions per year have been assumed in the Watershed Management and Support Services (WMSS) operating forecast. The estimated staffing additions reflect future growth and maintaining existing program service levels. Program service

level reviews are completed annually as part of the budget process to reflect service level changes.

- Inflation for 2021 has been assumed at 1%. Compensation and other expenses in the forecast have been assumed to increase annually at the estimated rate of inflation of 2%.

- Watershed Management and Support Services program revenues have been assumed to increase annually by a 2% inflationary rate.

The operating cost impacts related to the Developer Contribution works will be included later once these costs are assessed through the work being completed in 2020-2021 for design, cost certainty and regulatory needs.

2021 Budget and Capital Forecast 2022-2030

The development of the 2021 capital budget, the 2022-2030 forecast and overall financing strategy took into consideration the following: 1) strategic initiatives in Conservation Halton's Strategic Plan; 2) capital priorities identified in the Asset Management Plans; 3) the Emerald Ash Borer and Flood Plain Mapping Business Plans; and 4) Park Master Plans. The capital budget as proposed will ensure assets are maintained in a state of good repair and address the impact of growth in the region on Conservation Halton's infrastructure. The capital forecast incorporates the previous initiatives while ensuring long-term fiscal sustainability.

The largest portion of the Watershed Management and Support Services capital budget are related to dams and channels rehabilitation and replacement capital projects. The dams and channels capital projects are based on information prepared by Conservation Halton's Engineering staff. Dams and channels capital projects are generally assumed to be funded 50% municipally through the State of Good Repair Levy reserve funding and debt financing for channel and Scotch Block Dam repairs and the remaining 50% provincially which is expected to be approved as part of a grant application process.

Conservation Areas capital projects in the forecast include three projects totalling $24.3 million based on business cases previously provided to the Board. These capital projects are partly funded by developer contributions received by the Region of Halton. The capital projects and contributions collected are related to growth in Conservation Halton services; including recreation centres, water distribution and sewer collection systems. The project preliminary designs and costs are currently being refined to provide better cost certainty to determine overall funding requirements.

The Strategic Plan initiatives included in the capital forecast will enable Conservation Halton to invest in innovation and technology to continue to modernize operations, streamline service delivery and improve resource management. Initiatives included in the 2021 capital budget and 2022 – 2030 forecast include the continuation of:

- Modernizing our flood forecasting and operations
- Improving flood plain mapping across the watershed
- Investing in digital transformation across our systems
- Mitigating the impacts of Emerald Ash Borer on our forests
- Enhancing environmental restoration and stewardship programs
- Creating the capacity to offer sustainable outdoor recreation and eco-tourism experiences

Municipal funding forecast

Based on the attached operating and capital forecasts, the proposed municipal funding for 2021 to 2025 is as follows:

	BUDGET	FORECAST			
Municipal Funding	**2021**	**2022**	**2023**	**2024**	**2025**
Operating	$ 9,695,379	$ 10,038,235	$ 10,428,357	$ 10,909,779	$ 11,269,348
Capital	$ 257,000	$ 378,000	$ 450,500	$ 447,000	$ 392,000
State of Good Repair (SOGR) Levy	$ 478,500	$ 480,500	$ 494,400	$ 521,200	$ 695,800
Muncipal Funding - Total including SOGR Levy	**$ 10,430,879**	**$ 10,896,735**	**$ 11,373,257**	**$ 11,877,979**	**$ 12,357,148**
% Change	**3.0%**	**4.5%**	**4.4%**	**4.4%**	**4.0%**

The State of Good Repair long-term financing strategy developed in the 2019 budget proposed a municipal funding increase in the budget and operating forecast between 4 – 4.5% annually. The annual increases will ensure funds are available to meet both current and future programming and organizational needs.

Impact on Strategic Goals

This report supports the Metamorphosis strategic theme of Striving for service excellence and efficiency. This theme is supported by the objective to provide clear financial data and analysis to support informed strategic and operational decision-making for budget development and long-term planning.

Financial Impact

Conservation Halton staff have developed a fiscally conservative preliminary budget for 2021. The modest increase of 3.0% for operating expenses and State of Good Repair Levy that is proposed:

- considers the potential fiscal impacts of COVID;
- recognizes our regional funding municipalities fiscal pressures;
- continues to provide core services in a growing watershed;
- ensures the needs of the increasing number of visitors at our Conservation Areas are met and
- reflects program and service enhancements to address service delivery objectives outlined in Conservation Halton's Strategic Plan Metamorphosis.

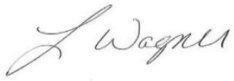
The 2021 preliminary budget as proposed addresses increased staff costs and estimated revenue shortfalls primarily through operational efficiencies. Additionally, the proposed preliminary 2021 budget continues to provide for investments in our programs to enhance service delivery, supports digital transformation initiatives, watershed planning work, greenspace revitalization, floodplain mapping, flood forecasting, and enhances user experiences at our parks.

Conservation Halton

June 2020

Signed & respectfully submitted:

Marnie Piggot
Director, Finance



Lawrence Wagner
Senior Director, Corporate Services

Approved for circulation:

Hassaan Basit
CAO/Secretary-Treasurer

FOR QUESTIONS ON CONTENT: Marnie Piggot, Director, Finance; 905-336-1158, ext. 2240; mpiggot@hrca.on.ca

Conservation Halton 2021 Preliminary Budget Summary

	Description	% Increase (decrease) over 2020 Budget	2020 Budget Expenses	2021 Preliminary Budget Expenses	2021 Preliminary Budget Funding Sources: Program Revenue	Provincial Funding	Other (Grants, Sp. Project, Debt financing)	Chargeback Recoveries (CHF, SPP, CAP, Cons. Areas)	Reserve Funding	Municipal Levy & Funding
	WATERSHED MANAGEMENT & SUPPORT SERVICES (WMSS) PROGRAMS									
1	**CORPORATE SERVICES**									
	Office of the CAO		607,430	657,459				20,100		637,359
	Conservation Halton Foundation Administration		142,847	146,814				15,000		131,814
	Finance		787,642	800,934	72,500			239,649		488,785
	Information Technology		692,397	497,066				58,600		438,466
	Geographical Information Systems (GIS)		640,335	491,449	6,500					484,949
	Digital Transformation		119,546	351,303				134,800		216,503
	Human Resources		658,490	672,709				184,300		488,409
	Marketing & Communications		771,450	770,133				288,800	10,000	471,333
		(0.7%)	4,420,137	4,387,867	79,000	-	-	941,249	10,000	3,357,618
2	**CORPORATE COMPLIANCE**									
	Corporate Compliance		296,073	298,426				100,500		197,926
	Risk & Lands		408,542	469,581				84,900		384,681
		9.0%	704,615	768,007	-	-	-	185,400	-	582,607
3	**ENGINEERING**									
	Engineering		330,163	236,706	3,000			37,440		196,266
	Flood Forecasting		536,797	504,191		155,034	-	30,950		318,207
		(14.5%)	866,960	740,897	3,000	155,034	-	68,390	-	514,473
4	**PLANNING & WATERSHED MANAGEMENT**									
	Planning & Regulations		3,773,501	3,804,238	2,181,300			38,700		1,584,238
	Regional Infrastructure Team		474,130	489,579			501,818			(12,239)
	Source Protection		255,545	270,853		270,853		-		-
		1.4%	4,503,176	4,564,670	2,181,300	270,853	501,818	38,700	-	1,571,999

Conservation Halton 2021 Preliminary Budget Summary

	Description	% Increase (decrease) over 2020 Budget	2020 Budget Expenses	2021 Preliminary Budget Expenses	2021 Preliminary Budget Funding Sources: Program Revenue	Provincial Funding	Other (Grants, Sp. Project, Debt financing)	Chargeback Recoveries (CHF, SPP, CAP, Cons. Areas)	Reserve Funding	Municipal Levy & Funding
5	**SCIENCE & PARTNERSHIPS**									
	Ecology		573,476	629,493	21,978			45,268		562,247
	Stewardship		558,450	571,464	68,180			148,720	17,500	337,064
	HHRAP		272,922	335,273			343,655			(8,382)
	Partnership Projects		328,940	442,134			442,134			-
										-
		14.1%	1,733,788	1,978,364	90,158	-	785,789	193,988	17,500	890,929
6	**PROJECT MANAGEMENT OFFICE**									
	Administration Office Facility		193,794	196,396						196,396
	Project Management		220,659	451,155			75,000	94,110		282,045
	Restoration		320,328	355,263	-			263,443		91,820
	Construction		233,020	248,104				49,200		198,904
	Partnership Projects		718,102	1,461,513			1,461,513			-
		60.9%	1,685,903	2,712,431	-	-	1,536,513	406,753	-	769,165
7	**OPERATIONS**									
	Vehicles and Equipment		157,589	160,589						160,589
	Property Management		90,300	91,590	36,000	125,000				(69,410)
	Security		317,397	439,976				170,000		269,976
	Forestry Operations		513,684	543,202	42,000			15,000		486,202
	Forestry Tech Team		366,126	373,825	100,000			110,000		163,825
		11.4%	1,445,096	1,609,182	178,000	125,000	-	295,000	-	1,011,182
8	**DEBT FINANCING CHARGES**	(4.7%)	649,011	618,333						618,333
9	**TRANSFER TO RESERVES - STATE OF GOOD REPAIR (SOGR) LEVY**	8.9%	439,200	478,500						478,500
10	**TRANSFER TO RESERVE - LAND SECUREMENT**	0.0%	25,000	25,000						25,000
	TOTAL OPERATING WATERSHED MGMT & SUPPORT SERVICES (WMSS)	8.6%	**16,472,886**	**17,883,252**	**2,531,458**	**550,887**	**2,824,120**	**2,129,480**	**27,500**	**9,819,807**

Conservation Halton 2021 Preliminary Budget Summary

	Description	% Increase (decrease) over 2020 Budget	2020 Budget Expenses	2021 Preliminary Budget Expenses	2021 Preliminary Budget Funding Sources: Program Revenue	Provincial Funding	Other (Grants, Sp. Project, Debt financing)	Chargeback Recoveries (CHF, SPP, CAP, Cons. Areas)	Reserve Funding	Municipal Levy & Funding
	CONSERVATION AREAS									
11	**Conservation Areas**									
	Conservation Areas Administration		668,451	978,680	935,000			62,570		
	Vehicle and Equipment Operations - Parks		104,390	105,090						
	Kelso/Glen Eden		7,832,408	7,949,736	9,294,250					
	Crawford Lake/Mountsberg/Robert Edmondson		2,168,959	2,065,628	1,923,000		-			240,000
	Rattlesnake Point/Hilton Falls/Mount Nemo		734,631	773,000	1,070,500					
	Outreach		321,839	316,267	193,580				8,615	114,072
	Transfer Surplus to Conservation Area reserves		968,411	276,286						
	SUBTOTAL CONSERVATION AREAS - OPERATING BEFORE SUPPORT SERVICES CHARGEBACK	(2.6%)	12,799,089	12,464,687	13,416,330	-	-	62,570	8,615	354,072
	Support Services Chargeback	15.4%	1,193,400	1,376,900						
	TOTAL OPERATING CONSERVATION AREAS	(1.1%)	**13,992,489**	**13,841,587**	**13,416,330**	**-**	**-**	**62,570**	**8,615**	**354,072**
	TOTAL OPERATING PROGRAMS	4.1%	**30,465,375**	**31,724,839**	**15,947,788**	**550,887**	**2,824,120**	**2,192,050**	**36,115**	**10,173,879**

Conservation Halton 2021 Preliminary Budget Summary

	Description	% Increase (decrease) over 2020 Budget	2020 Budget Expenses	2021 Preliminary Budget Expenses	2021 Preliminary Budget Funding Sources: Program Revenue	Provincial Funding	Other (Grants, Sp. Project, Debt financing)	Chargeback Recoveries (CHF, SPP, CAP, Cons. Areas)	Reserve Funding	Municipal Levy & Funding
	CAPITAL									
	Capital - Watershed Management & Support									
12a	**Services (WMSS)**									
	Corporate Services									
	Lidar Imagery		40,000	-						-
	Ortho Imagery		-	15,000						15,000
	IT Infrastructure & Digital Transformation		224,000	122,000						122,000
	Website Upgrade		100,000	-					-	-
	Corporate Compliance									-
	Giant's Rib Geopark		100,000	-			-			-
	Clappison & Waterdown Woods		25,000	25,000						25,000
	Engineering									
	Dams & Channels Maintenance Projects		1,312,373	1,203,000		601,500	26,500		575,000	-
	Flood Forecasting & Warning Program		115,000	70,000						70,000
	Flood Plain Mapping Update		330,000	500,000			500,000			-
	Planning & Watershed Management									-
	Watershed Planning		25,000	25,000						25,000
	Project Management Office									-
	Administration Office Renovations		150,000	500,000			500,000		-	-
	Facility Major Maintenance		102,000	70,136					70,136	-
	Operations Centre - Capacity Study/Design		100,000	-					-	-
	Speyside Weir Removal		32,000	144,000					144,000	-
	Emerald Ash Borer		862,243	820,000	16,000		804,000			-
	Vehicle and Equipment Replacement		194,339	167,562					167,562	-
	Other Foundation Funded Projects		100,000	100,000			100,000			-
	TOTAL CAPITAL WMSS	(1.3%)	3,811,955	3,761,698	16,000	601,500	1,930,500	-	956,698	257,000
12b	**Capital - Conservation Areas**									
	Skihill Improvements		100,000	500,000					500,000	-
	Facility Major Maintenance & IT Infrastructure		405,000	495,000					495,000	-
	Vehicle and Equipment Replacement		165,556	148,412					148,412	-
	Developer Contribution Works		250,000	-			-			-
	TOTAL CAPITAL CONSERVATION AREAS	24.2%	920,556	1,143,412	-	-	-	-	1,143,412	-
	TOTAL CAPITAL PROJECTS	3.6%	**4,732,511**	**4,905,110**	**16,000**	**601,500**	**1,930,500**	**-**	**2,100,110**	**257,000**
	TOTAL OPERATING PROGRAMS		**30,465,375**	**31,724,839**						
	TOTAL CAPITAL PROJECTS		**4,732,511**	**4,905,110**						
	TOTAL	4.1%	**35,197,886**	**36,629,949**	**15,963,788**	**1,152,387**	**4,754,620**	**2,192,050**	**2,136,225**	**10,430,879**

Conservation Halton

Ten Year Operating Expenditures and Funding Budget & Forecast - Watershed Management & Support Services (WMSS)

Operating WMSS Expenditures	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Salaries & Benefits										
Balance, beginning of year in 2020 budget	11,896,024									
Less: Retatement of Outreach to Conservation Areas	(169,589)									
Balance, beginning of year	11,726,435	12,296,799	12,714,799	13,144,799	13,586,799	14,041,799	14,508,799	14,989,799	15,483,799	15,990,799
Staffing increase (2021 1.0 FTE decrease; 2 FTE 2022-2030)	16,704	153,000	156,000	159,000	162,000	165,000	168,000	171,000	174,000	177,000
Increase in part time staffing due to increase in Partnership Projects	74,545	-	-	-	-	-	-	-	-	-
Compensation Review adjustments	150,391	-	-	-	-	-	-	-	-	-
Compensation Increases (2021 1%, 2022-30 2% inflation; 95% of range)	218,941	195,000	201,000	208,000	215,000	222,000	230,000	237,000	245,000	253,000
Increase in benefits (2021-2030 2% inflation)	109,782	70,000	73,000	75,000	78,000	80,000	83,000	86,000	88,000	91,000
Balance, end of year	**12,296,799**	**12,714,799**	**13,144,799**	**13,586,799**	**14,041,799**	**14,508,799**	**14,989,799**	**15,483,799**	**15,990,799**	**16,511,799**
Materials & Supplies										
Balance, beginning of year in 2020 budget	753,560									
Less: Restatement of Outreach to Conservation Areas	(71,300)									
Balance, beginning of year restated	682,260	713,842	730,642	745,242	760,142	775,342	790,842	806,642	822,742	839,242
HR program cost decrease	(12,000)									
Information Technology program supplies decrease	25,000									
Science & Partnerships program supplies decrease	8,285									
Project Management Office (PMO) program costs decrease	(2,703)									
General Increases (Assumed 2021-2030 2% inflation)	13,000	16,800	14,600	14,900	15,200	15,500	15,800	16,100	16,500	16,800
Balance, end of year	**713,842**	**730,642**	**745,242**	**760,142**	**775,342**	**790,842**	**806,642**	**822,742**	**839,242**	**856,042**
-										
Purchased Services										
Balance, beginning of year in 2020 budget	2,372,791									
Less: Restatement of Outreach to Conservation Areas	80,950									
Balance, beginning of year restated	2,414,529	3,124,481	3,171,481	3,219,481	3,267,481	3,316,481	3,366,481	3,416,481	3,450,481	3,485,481
Corporate Services Payroll processing system service cost increase	(6,500)									
IT improvements and centralization of IT budget from other departments	(63,010)									
Science & Partnerships - Partnership Projects cost increase	69,039									
Science & Partnerships - HHRAP cost increase	48,567									
Project Management Office (PMO) - Partnership Projects cost increase	692,320									
General Increases/(decreases) (Assumed 2021-2030 2% inflation)	(30,464)	47,000	48,000	48,000	49,000	50,000	50,000	34,000	35,000	52,000
Balance, end of year	**3,124,481**	**3,171,481**	**3,219,481**	**3,267,481**	**3,316,481**	**3,366,481**	**3,416,481**	**3,450,481**	**3,485,481**	**3,537,481**
Financial and Rent Expense										
Balance, beginning of year (restated)	72,545	74,045	75,545	77,045	78,545	80,145	81,745	83,345	85,045	86,745
General Increases (2020-2029 Assumed 2.0% inflation)	1,500	1,500	1,500	1,500	1,600	1,600	1,600	1,700	1,700	1,700
Balance, end of year	**74,045**	**75,545**	**77,045**	**78,545**	**80,145**	**81,745**	**83,345**	**85,045**	**86,745**	**88,445**
Chargeback Expense										
Beginning of year	452,518	552,252	560,385	573,220	585,095	598,012	610,871	622,873	635,919	649,010
General Increases and decrease	99,734	8,133	12,835	11,875	12,917	12,859	12,002	13,046	13,091	13,237
Balance, end of year	**552,252**	**560,385**	**573,220**	**585,095**	**598,012**	**610,871**	**622,873**	**635,919**	**649,010**	**662,247**
Debt Financing Charges (Hamilton Community Fdn & Halton Region)										
Balance, beginning of year	649,011	618,333	673,464	708,626	796,903	731,140	649,304	618,777	607,106	599,912
Increase/(decrease) in debt financing charges - Ham. Comm. Foundation	-	-	-	-	-	-	-	-	-	-
Increase/(decrease) in debt financing charges - Halton Region	(30,678)	55,131	35,162	88,277	(65,763)	(81,837)	(30,527)	(11,671)	(7,194)	-
Total Debt Financing Charges	**618,333**	**673,464**	**708,626**	**796,903**	**731,140**	**649,304**	**618,777**	**607,106**	**599,912**	**599,912**

Conservation Halton

Operating WMSS Expenditures	Ten Year Operating Expenditures and Funding Budget & Forecast - Watershed Management & Support Services (WMSS)									
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Transfer to Reserves - State of Good Repair Levy (Dams and Channels)	376,500	376,500	388,300	413,000	585,400	765,800	997,700	1,017,700	1,124,900	1,124,900
Transfer to Reserves - State of Good Repair Levy (Buildings)	102,000	104,000	106,100	108,200	110,400	112,600	114,900	117,200	119,500	121,900
Transfer to Reserves - Land Securement	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Transfers to Reserves - Motor Pool	-	-	-	-	50,000	50,000	100,000	100,000	100,000	100,000
TOTAL OPERATING EXPENDITURES - WATERSHED MGMT & SUPPORT SERVICES	**17,883,252**	**18,431,816**	**18,987,813**	**19,621,165**	**20,313,719**	**20,961,441**	**21,775,517**	**22,344,992**	**23,020,589**	**23,627,726**
Funding of Operating Expenditures										
Program Revenue	2,531,458	2,658,000	2,711,200	2,765,400	2,820,700	2,877,100	2,934,600	2,993,300	3,053,200	3,114,300
Ministry of Natural Resources & Forestry Grant	155,034	155,034	155,034	155,034	155,034	155,034	155,034	155,034	155,034	155,034
Municipal Funding - Operating (Total incl. Education)	9,695,379	10,038,235	10,428,357	10,909,779	11,269,348	11,572,732	11,987,616	12,508,147	12,906,250	13,339,443
Municipal State of Good Repair Levy	478,500	480,500	494,400	521,200	695,800	878,400	1,112,600	1,134,900	1,244,400	1,246,800
Other Grants & Program Funding	3,219,973	3,281,900	3,344,900	3,409,200	3,474,900	3,542,000	3,610,300	3,680,000	3,751,000	3,823,500
Internal Chargebacks	1,775,408	1,788,147	1,823,921	1,860,552	1,897,937	1,936,176	1,975,367	1,873,611	1,910,705	1,948,649
Transfers from Reserves - Water Festival, Stewardship & Outreach	27,500	30,000	30,000	-	-	-	-	-	-	-
TOTAL OPERATING FUNDING - WATERSHED MANAGEMENT & SUPPORT SERVICES	**17,883,252**	**18,431,816**	**18,987,813**	**19,621,165**	**20,313,719**	**20,961,441**	**21,775,517**	**22,344,992**	**23,020,589**	**23,627,726**

Conservation Halton Conservation Areas Operating Expenditures	Ten Year Operating Expenditures and Funding Budget & Forecast - Conservation Areas									
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Salaries & Benefits	8,093,579	8,255,451	8,420,560	8,588,971	8,760,750	9,067,376	9,384,735	9,713,200	10,053,162	10,405,023
Materials & Supplies	1,844,639	1,881,532	1,919,162	1,957,546	1,996,697	2,066,581	2,138,911	2,213,773	2,291,255	2,371,449
Purchased Services	1,953,983	1,993,063	2,032,924	2,073,582	2,115,054	2,189,081	2,265,699	2,344,998	2,427,073	2,512,021
Financial & Rent Expense	296,200	302,124	308,166	314,330	320,616	331,838	343,452	355,473	367,915	380,792
Internal Chargebacks	1,376,900	1,404,400	1,432,500	1,461,200	1,490,400	1,520,200	1,550,600	1,581,600	1,613,200	1,645,500
Transfer to Reserve - Operating Surplus	276,286	569,391	959,646	1,375,904	1,819,693	2,687,620	3,011,720	3,359,122	3,730,162	4,126,151
TOTAL OPERATING EXPENDITURES	**13,841,587**	**14,405,960**	**15,072,959**	**15,771,533**	**16,503,210**	**17,862,696**	**18,695,117**	**19,568,167**	**20,482,767**	**21,440,935**
REVENUES										
Program Fees	13,416,330	13,980,885	14,639,382	15,329,385	16,052,420	17,403,189	18,226,820	19,090,004	19,994,661	20,942,807
Transfer from Reserve	8,615	-	-	-	-	-	-	-	-	-
Municipal Funding - Conservation Areas Education	354,072	361,253	368,479	375,748	383,063	390,424	397,833	406,289	414,795	423,351
Chargeback Revenue	62,570	63,821	65,098	66,400	67,728	69,082	70,464	71,873	73,311	74,777
TOTAL FUNDING - CONSERVATION AREAS	**13,841,587**	**14,405,960**	**15,072,959**	**15,771,533**	**16,503,210**	**17,862,696**	**18,695,117**	**19,568,167**	**20,482,767**	**21,440,935**

Conservation Halton WMSS Capital Expenditures	Ten Year Capital Expenditures and Funding Budget & Forecast - Watershed Management & Support Services									
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Engineering, Flood Forecasting & Operations										
Scotch Block Major Maintenance	-	-	20,000	160,000	90,000	350,000	-	100,000	-	-
Hilton Falls Major Maintenance	755,000	130,000	365,000	-	-	-	-	-	112,000	-
Morrison-Wedgewood major maintenance	53,000	690,000	-	-	-	-	-	-	-	-
Kelso Dam Major Maintenance	-	-	-	-	-	-	-	-	-	112,000
Mountsberg Major Maintenance	155,000	-	-	-	-	-	-	-	-	-
Dams and Channels Maintenance Projects	-	450,000	1,030,000	1,290,000	1,350,000	1,410,000	1,470,000	1,530,000	1,590,000	1,590,000
Dam Public Safety Projects	240,000	-	-	-	90,000	90,000	-	-	-	-
Flood Forecasting	70,000	100,000	25,000	27,500	30,000	32,500	35,000	37,500	40,000	40,000
Flood Plain Mapping	500,000	525,000	550,000	500,000	525,000	240,000	95,000	100,000	105,000	105,000
	1,773,000	1,895,000	1,990,000	1,977,500	2,085,000	2,122,500	1,600,000	1,767,500	1,847,000	1,847,000
Corporate Services										
Asset Management Plan Consulting	-	-	37,500	37,500	-	-	-	-	75,000	-
Program Rates & Fees Review	-	-	60,000	-	-	-	-	60,000	-	-
Engagement Survey	-	31,000	-	15,000	-	31,000	-	15,000	-	35,000
Compensation Review	-	30,000	-	-	-	-	35,000	-	-	-
Ortho Imagery	15,000	-	15,000	-	15,000	-	15,000	-	15,000	-
Satellite Imagery	-	-	-	-	-	-	-	-	-	-
Lidar	-	40,000	-	40,000	-	40,000	-	40,000	-	40,000
Website Upgrade	-	-	-	-	-	100,000	-	-	-	-
IT Infrastructure - upgrades - WMSS	122,000	152,000	198,000	252,000	172,000	182,000	162,000	244,000	207,000	182,000
	137,000	253,000	310,500	344,500	187,000	353,000	212,000	359,000	297,000	257,000
Corporate Compliance										
Giant's Rib GeoPark	-	100,000	100,000	100,000	100,000	-	-	-	-	-
Clappison & Waterdown Woods	25,000	50,000	50,000	50,000	100,000	-	-	-	-	-
	25,000	150,000	150,000	150,000	200,000	-	-	-	-	-
Planning & Watershed Management										
Municipal Natural Assets Initiative	25,000	-	-	-	-	-	-	-	-	-
Integrated Watershed Management Initiatives	-	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Science & Partnerships										
Watershed Implementation Plan	-	-	40,000	-	50,000	50,000	25,000	25,000	100,000	100,000
Emerald Ash Borer (EAB) Management	820,000	804,000	834,000	834,000	794,000	794,000	-	-	-	-
Conservation Halton Foundation funded projects	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
	920,000	904,000	974,000	934,000	944,000	944,000	125,000	125,000	200,000	200,000

Conservation Halton WMSS Capital Expenditures	Ten Year Capital Expenditures and Funding Budget & Forecast - Watershed Management & Support Services									
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Project Management Office										
Administration Office & Other Facility Renovations	570,136	239,287	716,505	152,011	184,468	170,595	60,633	225,179	84,936	316,413
Speyside Weir Removal	144,000	12,200	3,000	3,500	-	2,100	-	-	-	-
Operations Centre	-	500,000	1,000,000	-	-	-	-	-	-	-
	714,136	751,487	1,719,505	155,511	184,468	172,695	60,633	225,179	84,936	316,413
WMSS Operations										
Vehicle & Equipment Replacement	167,562	146,774	156,920	122,412	64,498	61,841	128,974	123,792	112,118	110,000
	167,562	146,774	156,920	122,412	64,498	61,841	128,974	123,792	112,118	110,000
Total Capital Expenditures	**3,761,698**	**4,125,261**	**5,325,925**	**3,708,923**	**3,689,966**	**3,679,036**	**2,151,607**	**2,625,471**	**2,566,054**	**2,755,413**
Capital - Funding										
Provincial Grants	601,500	635,000	707,500	725,000	765,000	925,000	735,000	815,000	851,000	851,000
Municipal Funding	257,000	378,000	450,500	447,000	392,000	460,500	392,000	446,500	567,000	527,000
Municipal Funding - EAB	804,000	804,000	834,000	834,000	794,000	794,000	-	-	-	-
Municipal Funding - Floodplain Mapping	500,000	525,000	550,000	500,000	525,000	240,000	-	-	-	-
Other Funding Grants and Program Fees	116,000	212,200	203,000	203,500	200,000	102,100	100,000	100,000	100,000	100,000
Transfer from Reserves	956,698	576,061	970,925	919,423	968,966	982,436	924,607	1,213,971	1,048,054	1,277,413
Municipal Debt Financing	526,500	995,000	1,610,000	80,000	45,000	175,000	-	50,000	-	-
Total Capital Funding	**3,761,698**	**4,125,261**	**5,325,925**	**3,708,923**	**3,689,966**	**3,679,036**	**2,151,607**	**2,625,471**	**2,566,054**	**2,755,413**

Conservation Halton Conservation Areas Capital Expenditures	Ten Year Capital Expenditures and Funding Budget & Forecast - Conservation Areas									
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Capital Expenditures Conservation Areas										
Expenditures funds by Capital Reserve										
Vehicle and equipment replacement	148,412	147,494	131,856	99,605	98,497	115,364	53,062	90,780	108,500	125,000
Facility and Infrastructure Major Maintenance	370,000	-	250,000	175,000	250,000	180,000	470,000	-	800,000	300,000
Ski/Snowboarding Capital Expenditures	500,000	900,000	400,000	1,600,000	-	2,000,000	775,000	2,200,000	-	500,000
Park Master Plans	50,000	50,000	50,000	50,000	50,000	50,000	-	-	-	
Information Technology Infrastructure	75,000	38,000	38,000	78,000	48,000	53,000	38,000	38,000	78,000	48,000
Subtotal Capital Expenditures Conservation Areas	**1,143,412**	**1,135,494**	**869,856**	**2,002,605**	**446,497**	**2,398,364**	**1,336,062**	**2,328,780**	**986,500**	**973,000**
Conservation Area - Developer Contribution Works										
Projects funded by Development fees collected by Region of Halton:										
Kelso/Glen Eden Water Distribution and Collection		2,754,475	2,754,475	2,754,475						
Kelso Recreation and Trail Centre			500,000	2,259,900	3,259,900	1,159,900				
Crawford Lake Visitor Centre and Education Facility	-				500,000	3,000,000	3,000,000	1,000,000	1,367,050	-
Subtotal Costs - Developer Contribution Works	**-**	**2,754,475**	**3,254,475**	**5,014,375**	**3,759,900**	**4,159,900**	**3,000,000**	**1,000,000**	**1,367,050**	**-**
Total Conservation Areas Capital Expenditures	**1,143,412**	**3,889,969**	**4,124,331**	**7,016,980**	**4,206,397**	**6,558,264**	**4,336,062**	**3,328,780**	**2,353,550**	**973,000**
Funding - Developer Contribution Works										
Developer Contributions - Region of Halton	-	2,167,275	2,736,675	4,584,075	3,476,300	3,987,600	1,398,075			
Interest on Developer Contributions - estimate Halton Region		587,200	517,800	430,300	283,600	172,300	44,700	-	-	-
Conservation Halton Foundation & Other Funding							1,557,225	1,000,000	1,367,050	-
Subtotal Funding-Developer Contribution Works	**-**	**2,754,475**	**3,254,475**	**5,014,375**	**3,759,900**	**4,159,900**	**3,000,000**	**1,000,000**	**1,367,050**	**-**
Funding - Capital Expenditures Conservation Areas										
Conservation Halton Foundation & Other Grant Funding										
Transfer from Reserves	1,143,412	1,135,494	869,856	2,002,605	446,497	2,398,364	1,336,062	2,328,780	986,500	973,000
Transfer from Reserves - Capital Projects partly funded by D	-	-	-	-	-	-	-	-	-	-
Total Conservation Areas Capital Funding	**1,143,412**	**3,889,969**	**4,124,331**	**7,016,980**	**4,206,397**	**6,558,264**	**4,336,062**	**3,328,780**	**2,353,550**	**973,000**

Conservation Halton	RESERVE CONTINUITY									
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Watershed Management & Support Services Reserves										
Vehicle and Equipment, beginning of year	$ 720,083	$ 552,521	$ 405,747	$ 248,827	$ 126,415	$ 111,917	$ 100,076	$ 71,102	$ 47,310	$ 35,192
Transfer to Reserve - Reserve funding (municipal)	-	-	-	-	50,000	50,000	100,000	100,000	100,000	100,000
Transfer from Reserve - Capital expenditures	(167,562)	(146,774)	(156,920)	(122,412)	(64,498)	(61,841)	(128,974)	(123,792)	(112,118)	(110,000)
Vehicle and Equipment	**$ 552,521**	**$ 405,747**	**$ 248,827**	**$ 126,415**	**$ 111,917**	**$ 100,076**	**$ 71,102**	**$ 47,310**	**$ 35,192**	**$ 25,192**
Building, beginning of year	$ 230,128	$ 230,128	$ 230,128	$ 230,128	$ 135,128	$ 135,128	$ 135,128	$ 135,128	$ 135,128	$ 135,128
Transfer from Reserve - Capital expenditures	-	-	-	(95,000)	-	-	-	-	-	-
Building	**$ 230,128**	**$ 230,128**	**$ 230,128**	**$ 135,128**	**$ 135,128**	**$ 135,128**	**$ 135,128**	**$ 135,128**	**$ 135,128**	**$ 135,128**
Building - State of Good Repair, beginning of year	$ 262,293	$ 294,157	$ 308,870	$ 298,465	$ 349,654	$ 275,586	$ 217,591	$ 271,858	$ 163,879	$ 198,443
Transfer to Reserve - SOGR Levy	102,000	104,000	106,100	108,200	110,400	112,600	114,900	117,200	119,500	121,900
Transfer from Reserve - Capital expenditures	(70,136)	(89,287)	(116,505)	(57,011)	(184,468)	(170,595)	(60,633)	(225,179)	(84,936)	(316,413)
Building - State of Good Repair	**$ 294,157**	**$ 308,870**	**$ 298,465**	**$ 349,654**	**$ 275,586**	**$ 217,591**	**$ 271,858**	**$ 163,879**	**$ 198,443**	**$ 3,930**
Watershed Mgmt Cap.-Municipal & Self Generated	$ 1,006,442	$ 807,942	$ 894,442	$ 585,242	$ 353,242	$ 218,642	$ 234,442	$ 497,142	$ 749,842	$ 1,023,742
Transfer to Reserves - SOGR Levy	376,500	376,500	388,300	413,000	585,400	765,800	997,700	1,017,700	1,124,900	1,124,900
Transfer from Reserves - Capital expenditures	(575,000)	(290,000)	(697,500)	(645,000)	(720,000)	(750,000)	(735,000)	(765,000)	(851,000)	(851,000)
Watershed Management Capital - Municipal	**$ 807,942**	**$ 894,442**	**$ 585,242**	**$ 353,242**	**$ 218,642**	**$ 234,442**	**$ 497,142**	**$ 749,842**	**$ 1,023,742**	**$ 1,297,642**
Watershed Mgmt & Support Serv. Stabilization	**$ 793,193**	**$ 793,193**	**$ 793,193**	**$ 793,193**	**$ 793,193**	**$ 793,193**	**$ 793,193**	**$ 793,193**	**$ 793,193**	**$ 793,193**
Capital Projects - Debt Financing Charges	**$ 472,670**	**$ 472,670**	**$ 472,670**	**$ 472,670**	**$ 472,670**	**$ 472,670**	**$ 472,670**	**$ 472,670**	**$ 472,670**	**$ 472,670**
Digital Transformation, beginning of year	$ 250,000	$ 250,000	$ 200,000	$ 200,000	$ 200,000	$ 200,000	$ 200,000	$ 200,000	$ 100,000	$ 100,000
Transfer from Reserve	-	(50,000)	-	-	-	-	-	(100,000)	-	-
Digital Transformation	**$ 250,000**	**$ 200,000**	**$ 200,000**	**$ 200,000**	**$ 200,000**	**$ 200,000**	**$ 200,000**	**$ 100,000**	**$ 100,000**	**$ 100,000**
Legal - Planning & Watershed Management	**$ 258,891**	**$ 258,891**	**$ 258,891**	**$ 258,891**	**$ 258,891**	**$ 258,891**	**$ 258,891**	**$ 258,891**	**$ 258,891**	**$ 258,891**
Legal - Corporate	**$ 200,000**	**$ 200,000**	**$ 200,000**	**$ 200,000**	**$ 200,000**	**$ 200,000**	**$ 200,000**	**$ 200,000**	**$ 200,000**	**$ 200,000**
Water Festival, beginning of year	$ 158,911	$ 140,296	$ 125,296	$ 110,296	$ 110,296	$ 110,296	$ 110,296	$ 110,296	$ 110,296	$ 110,296
Transfer from Reserve	(18,615)	(15,000)	(15,000)	-	-	-	-	-	-	-
Water Festival	**$ 140,296**	**$ 125,296**	**$ 110,296**	**$ 110,296**	**$ 110,296**	**$ 110,296**	**$ 110,296**	**$ 110,296**	**$ 110,296**	**$ 110,296**
Land Securement, beginning of year	$ 59,537	$ 84,537	$ 109,537	$ 134,537	$ 159,537	$ 184,537	$ 209,537	$ 234,537	$ 259,537	$ 284,537
Transfer to Reserve - Reserve funding (municipal)	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Land Securement	**$ 84,537**	**$ 109,537**	**$ 134,537**	**$ 159,537**	**$ 184,537**	**$ 209,537**	**$ 234,537**	**$ 259,537**	**$ 284,537**	**$ 309,537**
Property Management	**$ 80,040**	**$ 80,040**	**$ 80,040**	**$ 80,040**	**$ 80,040**	**$ 80,040**	**$ 80,040**	**$ 80,040**	**$ 80,040**	**$ 80,040**
Stewardship & Restoration, beginning of year	$ 342,399	$ 180,899	$ 165,899	$ 150,899	$ 150,899	$ 150,899	$ 150,899	$ 150,899	$ 150,899	$ 150,899
Transfer to (from) Reserve	(161,500)	(15,000)	(15,000)	-	-	-	-	-	-	-
Stewardship and Restoration	**$ 180,899**	**$ 165,899**	**$ 150,899**	**$ 150,899**	**$ 150,899**	**$ 150,899**	**$ 150,899**	**$ 150,899**	**$ 150,899**	**$ 150,899**
Conservation Areas Stabilization	**$ 1,000,568**	**$ 1,000,568**	**$ 1,000,568**	**$ 1,000,568**	**$ 1,000,568**	**$ 1,000,568**	**$ 1,000,568**	**$ 1,000,568**	**$ 1,000,568**	**$ 1,000,568**
Capital, beginning of year	2,963,738	2,096,612	1,530,509	1,620,299	993,599	2,366,795	2,656,050	4,331,708	5,362,050	8,105,712
Transfer to Reserve	276,286	569,391	959,646	1,375,904	1,819,693	2,687,620	3,011,720	3,359,122	3,730,162	4,126,151
Transfer from Reserve - Capital expenditures	(1,143,412)	(1,135,494)	(869,856)	(2,002,605)	(446,497)	(2,398,364)	(1,336,062)	(2,328,780)	(986,500)	(973,000)
Capital	**$ 2,096,612**	**$ 1,530,509**	**$ 1,620,299**	**$ 993,599**	**$ 2,366,795**	**$ 2,656,050**	**$ 4,331,708**	**$ 5,362,050**	**$ 8,105,712**	**$ 11,258,862**
TOTAL RESERVES	**$ 7,442,454**	**$ 6,825,790**	**$ 6,384,056**	**$ 5,384,132**	**$ 6,559,162**	**$ 6,819,382**	**$ 8,808,033**	**$ 9,984,303**	**$ 12,949,311**	**$ 16,196,849**

Conservation Halton

June 2020

REPORT TO: Conservation Halton Board of Directors

REPORT NO: # CHBD 05 20 04

FROM: Marnie Piggot, Director Finance

DATE: June 25, 2020

SUBJECT: **Budget Variance Report for the Period Ended May 31, 2020 and 2020 Projected Year End Amounts**

Recommendation

THAT the Conservation Halton Board of Directors **approve the closing of the capital projects and changes to the Dams and Channels capital project amounts based on provincial capital funding approval noted in the staff report dated June 25, 2020;**

AND

THAT the Conservation Halton Board of Directors **receive for information the staff report dated June 25, 2020 on the Budget Variance Report for the period ended May 31, 2020 and 2020 Projected Year End Amounts.**

Executive Summary

Attached is the Budget Variance Report for the period ended May 31, 2020 including the projected year-end amounts. Staff have reviewed the financial results to date and considered future transactions for the remainder of the year. With the COVID mitigation measures implemented in April, the re-opening of our parks with controlled park entries and better than expected Planning and permit revenues an overall operating surplus for 2020 of $138,162 is projected. This is a significant improvement from the deficit projected in April where the estimated deficit ranged from $1.3M to $1.6M.

The early revenue projections for the Conservation Areas assumed very little revenue from March to August. Since that time park operations have resumed, and the revenue generated from our controlled entries continues to show positive results. Further, the revenue forecast is expected to continue to improve as more park programs and services come back online. Transfers from reserves will not be required at this time.

The projected operating surplus details are summarized in the table below. It includes a comparison to the 2020 budget amounts for Watershed Management and Support Services (WMSS) and Conservation Areas. A surplus in WMSS programs of $202,794 and a small operating deficit of $64,631 in the Conservation Areas is projected.

The projected operating surplus in WMSS is primarily the result of cost savings related to staff vacancies, estimated reductions in discretionary expenses as a result of COVID measures and an increase in projected planning and permit revenue that can be recognized based on work completed and fees received. Early projections assumed planning and permit revenues would decline due to the pandemic. To date the overall number of planning and permit applications have decreased slightly but the revenue generated continues to match or exceed 2019 results.

The Conservation Areas projected operating deficit is due to park revenues estimated to be lower the 2020 budget amount by $4.7 million. Revenue is lower due to reduced park visitation and lower annual pass sales during the two months the park were closed. It also assumes potential adverse impacts on visitation and programs for the remainder of the year and a potential reduction in fees generated from park programs such as summer camps that have been or may be cancelled for the balance of 2020. The projected park revenue shortfall of $3.7M is anticipated to be offset through a reduction of full time and part time staffing costs and lower park operating expenditures.

As previously noted with the introduction of controlled park access our revenue generated from daily gate fees continues to match and even exceed 2019 numbers. As additional programs are added or brought online it is fully expected that our revenue shortfall will be significantly decreased.

Details of the 2020 operating surplus and budget variances are included in the notes contained on the Budget Variance Report financial appendix.

Program	YTD ACTUAL MAY 31, 2020	2020 PROJECTED	2020 BUDGET	PROJECTED $ VARIANCE OVER (UNDER) BUDGET	PROJECTED % VARIANCE OVER (UNDER) BUDGET	ACTUAL December 31 2019
WATERSHED MANAGEMENT & SUPPORT SERVICES (WMSS)						
Revenue	6,739,239	14,266,062	16,489,074	(2,223,012)	(13.5%)	15,174,442
Expenses	5,482,263	14,063,269	16,448,074	(2,384,805)	(14.5%)	14,502,281
Operating Surplus (Deficit)	**1,256,976**	**202,794**	**41,000**	**161,794**	394.6%	**672,162**
CONSERVATION AREAS						
Revenue	7,373,940	9,223,976	13,992,489	(4,768,513)	(34.1%)	14,542,181
Expenses	4,869,091	9,288,607	13,024,078	(3,735,471)	(28.7%)	13,775,968
Operating Surplus	**2,504,849**	**(64,631)**	**968,411**	**(1,033,042)**	(106.7%)	**766,213**
Total Operating Surplus (Deficit)	**$3,761,825**	**$138,162**	**$1,009,411**	**($871,249)**	**(86.3%)**	**$1,438,375**

Report

Operating Program

In mid March the Province of Ontario declared an emergency order as a result of COVID-19 that effectively shut down many businesses across Ontario. The provincial order forced Conservation Halton to temporarily close the parks and directly impacted other Conservation Halton programs. Staff quickly assessed the potential financial impact on all programs and to Conservation Halton as a whole. It became evident that this provincial order would eliminate the parks budgeted surplus for 2020 and depending on the length of the closure would lead to a large financial deficit for Conservation Halton.

In April, our initial estimates projected a deficit in the range of $1.3M to $1.6M for 2020. This deficit assumed our parks would be closed for several months and planning and permit applications would slow.

To ensure the fiscal gap did not increase, staff took proactive steps to implement cost mitigation measures to control spending across Conservation Halton. These measures included the difficult decision to temporarily lay off staff, put a hiring freeze in place for all non-essential positions, eliminating or reducing spending on non-essential services, and centralizing approval for all expenses. Staff continue to monitor 2020 financial projections for all programs on a bi-weekly basis to ensure assumptions are reasonable and reflect any change in operations.

Since the emergency order was announced parks staff proactively planned for re-opening the parks anticipating the provincial shut down would soon be lifted. On May 19th, the Province announced its stage 1 opening plan which allowed staff to re-open the parks. The implementation of a new park reservation system assisted with ensuring the parks could re-open in a responsible manner with planned physical distancing of park visitors. This allowed us to successfully re-open our parks with controlled entries and as a result our revenue projections have improved and continue a positive trend. Additionally, the Planning and Permit staff team have focused primarily on revenue generating activities to maximize revenue generation. This has also yielded positive results and the revenue generated continues to exceed earlier projections.

The Provincial announcement, along with the work done by staff to re-open the parks, the expenditure reductions and the continued focus by the planning and permit team on generating revenue allowed us to refine initial financial projections resulting in an improved financial position.

Capital Program

Also attached is the capital program summary financial appendix that includes current capital projects, the respective approved project budget, life to date costs and the budget remaining to be spent. As of May 31, 2020, life to date capital expenses are $12,735,352 or approximately 72% of the total capital budget. The Kelso Dam capital project represents 47% of this total and was substantially complete December 2019. Final site restoration work at Kelso Dam is anticipated to be completed by the end of June 2020 within the remaining budget amount.

Dams and channels capital projects are funded 50% provincially and 50% funded municipally through a transfer from the Water Management Capital Reserve, except for debt financing through Halton Region for 50% of the Scotch Block Dam Safety Repairs and Morrison Wedgewood Channel Spill. Dams and channels projects in the 2019 budget and completed by March 2020 can now be closed.

Approval was received in May from the Ministry of Natural Resources and Forestry (MNRF) for Water and Erosion Control Infrastructure (WECI) funding for 2020-2021. Based on the funding approval, dams and channels capital projects to be closed or the budget amount to be adjusted based on the funding approval are noted on the capital program financial appendix. The Hilton Falls Dam Phase 2 capital project costs of $825,084 is being closed in 2020 and has been included in the 2021 preliminary capital budget after the completion of Phase 1 works in 2020.

WECI Provincial funding was not confirmed for 50% of the costs for the Milton Channel Slab replacements and the Freeman Pond Attenuation study with total combined costs of $280,927 included

in the 2019 capital budget. A funding request for these capital projects will be brought forward in a future budget.

The recommended closing of the 2019 and 2020 budget dams and channels capital projects and capital budget adjustment will result in net capital project decrease and savings totaling $478,340 and a reduced transfer from the Watershed Management Capital Reserve for 50% of this amount.

Impact on Strategic Goals

This report supports the Metamorphosis strategic theme of Striving for service excellence and efficiency. This theme is supported by the objective to provide clear financial data and analysis to support informed strategic and operational decision-making for budget development and long-term planning.

Financial Impact

The report Recommendation outlines the financial impacts of the Budget Variance Report for the period ended May 31, 2020 and 2020 projected year end amounts.

Signed & respectfully submitted:

Marnie Piggot
Director, Finance

Approved for circulation:

Hassaan Basit
CAO/Secretary-Treasurer

Lawrence Wagner
Senior Director, Corporate Services

FOR QUESTIONS ON CONTENT: Marnie Piggot, Director, Finance; 905-336-1158, ext. 2240; mpiggot@hrca.on.ca

Conservation Halton
Budget Variance Report Financial Appendix
For the Period Ended May 31, 2020

	NOTES	ACTUAL YTD MAY 31, 2020	PROJECTED 2020	2020 BUDGET	$ VARIANCE OVER / (UNDER) BUDGET	% VARIANCE OVER / (UNDER) BUDGET
WATERSHED MANAGEMENT & SUPPORT SERVICES (WMSS)						
CORPORATE SERVICES						
Expenditures						
Salaries and Benefits	1	1,298,559	3,080,028	3,394,802	(314,774)	(9.3%)
Total Materials & Supplies and Purchased Services	2	368,660	842,805	984,335	(141,530)	(14.4%)
Debt Financing Charges		10,579	649,011	649,011	-	0.0%
Transfer to Reserves - State of Good Repair Levy		-	464,200	464,200	-	0.0%
Total Expenditures		**1,677,798**	**5,036,045**	**5,492,348**	**(456,303)**	**(8.3%)**
Revenue						
Program & Other Revenue		49,997	93,788	100,000	(6,212)	(6.2%)
Municipal Funding		3,877,255	9,333,919	9,305,409	28,510	0.3%
Chargeback Recoveries	1	284,688	585,549	797,149	(211,600)	(26.5%)
Reserve Funding		-	10,000	10,000	-	0.0%
Total Revenues		**4,211,940**	**10,023,256**	**10,212,558**	**(189,302)**	**(1.9%)**
TOTAL CORPORATE SERVICES		**2,534,142**	**4,987,212**	**4,720,210**	**267,002**	**5.7%**

Notes:

1. Salaries and benefits are projected to be lower than the budget amount due to staff vacancies and temporary reductions in staffing in the CAO Office, Human Resources, Communications, Finance, Digital Transformation, and GIS. The staff recovery chargeback to the Conservation Areas will be reduced as a result of the staffing reductions and during the park closure period.
2. Materials & Purchased Services are projected to be lower than the 2020 budget amount for anticipated reduced discretionary expenses including program supplies, consulting and staff training.

Conservation Halton
Budget Variance Report Financial Appendix
For the Period Ended May 31, 2020

	NOTES	ACTUAL YTD MAY 31, 2020	PROJECTED 2020	2020 BUDGET	$ VARIANCE OVER / (UNDER) BUDGET	% VARIANCE OVER / (UNDER) BUDGET
CORPORATE COMPLIANCE						
Expenditures						
Salaries and Benefits		218,602	525,702	540,115	(14,413)	(2.7%)
Total Materials & Supplies and Purchased Services	3	75,894	141,574	164,500	(22,926)	(13.9%)
Total Expenditures		**294,496**	**667,277**	**704,615**	**(37,338)**	**(5.3%)**
Revenue						
Chargeback Recoveries	4	73,705	143,600	176,900	(33,300)	(18.8%)
Total Revenues		**73,705**	**143,600**	**176,900**	**(33,300)**	**(18.8%)**
TOTAL CORPORATE COMPLIANCE		**(220,791)**	**(523,677)**	**(527,715)**	**4,038**	**(0.8%)**

Notes:
3. Materials & Purchased Services are projected to be lower than the 2020 budget amount for anticipated reduced legal and consulting fees.
4. The staff recovery chargeback to the Conservation Areas will be reduced as a result of the temporary staffing reductions and during the park closure period.

Conservation Halton
Budget Variance Report Financial Appendix
For the Period Ended May 31, 2020

	NOTES	ACTUAL YTD MAY 31, 2020	PROJECTED 2020	2020 BUDGET	$ VARIANCE OVER / (UNDER) BUDGET	% VARIANCE OVER / (UNDER) BUDGET
ENGINEERING AND FLOOD FORECASTING & OPERATIONS						
Expenditures						
Salaries and Benefits		318,108	697,234	713,960	(16,726)	(2.3%)
Total Materials & Supplies and Purchased Services	5	38,756	124,102	153,000	(28,898)	(18.9%)
Total Expenditures		**356,865**	**821,336**	**866,960**	**(45,624)**	**(5.3%)**
Revenue						
Program & Other Revenue		3,000	3,000	3,000	-	0.0%
Provincial Funding		1,630	156,664	159,034	(2,370)	(1.5%)
Chargeback Recoveries	6	54,158	80,158	131,200	(51,042)	(38.9%)
Total Revenues		**58,788**	**239,822**	**293,234**	**(53,412)**	**(18.2%)**
TOTAL ENGINEERING AND FLOOD FORECASTING & OPERATIONS		**(298,077)**	**(581,514)**	**(573,726)**	**(7,788)**	**1.4%**

Notes:
5. Materials & Purchased Services are projected to be lower than the budget for anticipated savings in program supplies and consulting fees.
6. The staff recovery chargeback to capital projects is estimated to be less than the budget amount in this department based on revised capital project work and staff changes.

Conservation Halton
Budget Variance Report Financial Appendix
For the Period Ended May 31, 2020

	NOTES	ACTUAL YTD MAY 31, 2020	PROJECTED 2020	2020 BUDGET	$ VARIANCE OVER / (UNDER) BUDGET	% VARIANCE OVER / (UNDER) BUDGET
PLANNING & WATERSHED MANAGEMENT						
Expenditures						
Salaries and Benefits	7	1,487,021	3,618,939	4,031,382	(412,443)	(10.2%)
Total Materials & Supplies and Purchased Services	8	71,843	374,965	471,794	(96,829)	(20.5%)
Total Expenditures		**1,558,864**	**3,993,904**	**4,503,176**	**(509,272)**	**(11.3%)**
Revenue						
Program & Other Revenue	9	1,476,533	1,864,303	2,551,100	(686,797)	(26.9%)
Provincial Funding		-	245,052	255,545	(10,493)	(4.1%)
Other Municipal Funding		119,051	448,347	488,003	(39,656)	(8.1%)
Total Revenues		**1,595,584**	**2,557,702**	**3,294,648**	**(736,946)**	**(22.4%)**
TOTAL PLANNING & WATERSHED MANAGEMENT		**36,720**	**(1,436,202)**	**(1,208,528)**	**(227,674)**	**18.8%**

Notes:

7. Salaries and benefits are projected to be lower than the budget amount due to staff vacancies and temporary reductions in staffing in Planning & Watershed Management, Regional Infrastructure Team (RIT) and Source Protection.

8. Materials & Purchased Services are projected to be lower than the 2020 budget amount for estimated legal and consulting fees.

9. Estimated planning and permit fees are projected to be lower than the budget amount. The 2020 budget for planning and permit fees was set too high based on historical actual amounts and has been reduced in the 2021 preliminary budget. The projected amount does not include potential impacts from the proposed regional allocation program.

Conservation Halton
Budget Variance Report Financial Appendix
For the Period Ended May 31, 2020

	NOTES	ACTUAL YTD MAY 31, 2020	PROJECTED 2020	2020 BUDGET	$ VARIANCE OVER / (UNDER) BUDGET	% VARIANCE OVER / (UNDER) BUDGET
SCIENCE & PARTNERSHIPS (S & P)						
Expenditures						
Salaries and Benefits	10	454,425	1,127,578	1,280,071	(152,493)	(11.9%)
Total Materials & Supplies and Purchased Services	11	10,519	35,378	124,777	(89,399)	(71.6%)
Total Expenditures		**464,944**	**1,162,956**	**1,404,848**	**(241,892)**	**(17.2%)**
Revenue						
Program & Other Revenue	12	435	435	76,040	(75,605)	(99.4%)
Provincial Grant Funding	13	55,000	55,000	-	55,000	0.0%
Other Municipal Funding		60,000	105,000	105,000	-	0.0%
Federal Funding	13	41,250	116,867	168,750	(51,883)	(30.7%)
Chargeback Recoveries	12	38,841	92,190	157,330	(65,140)	(41.4%)
Reserve Funding		-	17,500	17,500	-	0.0%
Total Revenues		**195,526**	**386,992**	**524,620**	**(137,628)**	**(26.2%)**
TOTAL SCIENCE & PARTNERSHIPS		**(269,418)**	**(775,964)**	**(880,228)**	**104,264**	**(11.8%)**

Notes:

10. Salaries and benefits are projected to be lower than the budget amount due to staff vacancies and temporary reductions in staffing in Ecology and Stewardship.
11. Materials & Supplies and Purchased Services expenses are projected to have savings with with reduced field work and Partnership Project work.
12. Program & Other Revenue and Chargeback Recoveries are estimated to decrease as a result of temporary staffing reductions and reduced field and project work.
13. A provincial grant was received for the Hamilton Harbour Remedial Action Plan (HHRAP) that was not included in budget that will result in a lower Federal funding contribution.

Conservation Halton
Budget Variance Report Financial Appendix
For the Period Ended May 31, 2020

	NOTES	ACTUAL YTD MAY 31, 2020	PROJECTED 2020	2020 BUDGET	$ VARIANCE OVER / (UNDER) BUDGET	% VARIANCE OVER / (UNDER) BUDGET
PROJECT MANAGEMENT OFFICE						
Expenditures						
Salaries and Benefits		335,817	759,972	739,248	20,724	2.8%
Total Materials & Supplies and Purchased Services	14	60,029	144,818	217,165	(72,347)	(33.3%)
Transfer to Reserves		-	11,388	11,388	-	0.0%
Total Expenditures		**395,846**	**916,178**	**967,801**	**(51,623)**	**(5.3%)**
Revenue						
Program & Other Revenue		18,908	18,908	25,560	(6,652)	(26.0%)
Chargeback Recoveries		116,309	183,509	294,524	(111,015)	(37.7%)
Total Revenues	15	**135,217**	**202,417**	**320,084**	**(117,667)**	**(36.8%)**
TOTAL PROJECT MANAGEMENT OFFICE		**(260,629)**	**(713,761)**	**(647,717)**	**(66,044)**	**10.2%**

Notes:
14. Materials & Purchased Services are projected to be lower than the 2020 budget amount for anticipated reduced discretionary expenses for Restoration program supplies and facility maintenance.
15. Program & Other Revenue and Chargeback Recoveries are estimated to be less than the budget as a result of Restoration temporary staffing reductions and reduced field and project work.

Conservation Halton
Budget Variance Report Financial Appendix
For the Period Ended May 31, 2020

	NOTES	ACTUAL YTD MAY 31, 2020	PROJECTED 2020	2020 BUDGET	$ VARIANCE OVER / (UNDER) BUDGET	% VARIANCE OVER / (UNDER) BUDGET
OPERATIONS						
Expenditures						
Salaries and Benefits		392,737	978,519	1,016,957	(38,438)	(3.8%)
Chargeback - Parks staff support	16	23,080	44,120	55,400	(11,280)	(20.4%)
Total Materials & Supplies and Purchased Services	17	88,335	213,635	372,739	(159,104)	(42.7%)
Total Expenditures		**504,152**	**1,236,274**	**1,445,096**	**(208,822)**	**(14.5%)**
Revenue						
Program & Other Revenue	17	68,266	82,682	133,000	(50,318)	(37.8%)
Provincial Grants		62,500	125,000	125,000	-	0.0%
Other Municipal Funding	18	5,178	31,960	62,000	(30,040)	(48.5%)
Chargeback Recoveries		103,236	243,332	283,800	(40,468)	(14.3%)
Total Revenues		**239,180**	**482,974**	**603,800**	**(120,826)**	**(20.0%)**
TOTAL OPERATIONS		**(264,973)**	**(753,300)**	**(841,296)**	**87,996**	**(10.5%)**

Notes:
16. Increased operation staff support costs by Conservation Areas staff.
17. Projected reduction in material materials and supplies with deferral of tree planting program and grants to 2021. Property management and vehicle maintenance expenses are also estimated to be lower with temporary staffing reductions.
18. Other municipal funding is estimated to be less than the budget for reduced property management services provided at Halton Region Agreement Forests.

Conservation Halton
Budget Variance Report Financial Appendix
For the Period Ended May 31, 2020

	NOTES	ACTUAL YTD MAY 31, 2020	PROJECTED 2020	2020 BUDGET	$ VARIANCE OVER / (UNDER) BUDGET	% VARIANCE OVER / (UNDER) BUDGET
PARTNERSHIP PROJECTS - SCIENCE & PARTNERSHIPS AND PROJECT MANAGEMENT OFFICE						
Expenditures						
Salaries and Benefits		126,953	126,953	374,549	(247,596)	(66.1%)
Total Materials & Supplies and Purchased Services		102,346	102,346	688,681	(586,335)	(85.1%)
Total Expenditures	19	**229,300**	**229,300**	**1,063,230**	**(833,931)**	**(78.4%)**
Revenue						
Program Revenue		58,883	58,881	809,765	(750,884)	(92.7%)
Provincial Grants		79,398	79,399	98,903	(19,504)	(19.7%)
Other Municipal Funding		2,364	2,364	-	2,364	0.0%
Federal Funding		88,655	88,656	154,562	(65,906)	(42.6%)
Total Revenues	19	**229,299**	**229,300**	**1,063,230**	**(833,931)**	**(78.4%)**
		(0)	**-**	**-**	**-**	**0.0%**

Notes:

19. Partnership project costs are fully funded by related project grants and other funding. A decrease in Partnership Projects costs and funding is expected based on a temporary pause in project and field work in the spring with staff vacancies and temporary staff reductions resulting in a matching reduction in project funding.

TOTAL WMSS REVENUE		**6,739,239**	**14,266,063**	**16,489,074**	**(2,223,011)**	**(13.5%)**
TOTAL WMSS EXPENDITURES		**5,482,264**	**14,063,270**	**16,448,074**	**(2,384,804)**	**(14.5%)**
TOTAL		**1,256,975**	**202,794**	**41,000**	**161,794**	**394.6%**

Conservation Halton
Budget Variance Report Financial Appendix
For the Period Ended May 31, 2020

	NOTES	ACTUAL YTD MAY 31, 2020	PROJECTED 2020	2020 BUDGET	$ VARIANCE OVER / (UNDER) BUDGET	% VARIANCE OVER / (UNDER) BUDGET
CONSERVATION AREAS						
Expenditures						
Salaries and Benefits	20	3,017,432	5,506,750	7,826,076	(2,319,326)	(29.6%)
Total Materials & Supplies and Purchased Services	21	1,400,217	2,875,257	4,004,602	(1,129,345)	(28.2%)
Chargeback - WMSS Support Services to Parks	22	451,441	906,600	1,193,400	(286,800)	(24.0%)
Total Expenditures		**4,869,091**	**9,288,607**	**13,024,078**	**(3,735,471)**	**(28.7%)**
Revenue						
Program Revenue	23	7,398,740	8,842,457	13,452,180	(4,609,723)	(34.3%)
Other Revenue		-	25,800	65,000	(39,200)	(60.3%)
Municipal Funding	24	(47,880)	278,519	404,909	(126,390)	(31.2%)
Reserve Funding (Outreach)		-	10,000	15,000	(5,000)	(33.3%)
Chargeback - Parks to WMSS		23,080	67,200	55,400	11,800	21.3%
Total Revenues		**7,373,940**	**9,223,976**	**13,992,489**	**(4,768,513)**	**(34.1%)**
TOTAL - TRANSFER TO (FROM) CONSERVATION AREA RESERVES		**2,504,849**	**(64,631)**	**968,411**	**(1,033,042)**	**(106.7%)**

Notes:

20. Salaries and benefits are projected to be lower than the budget amount due to staff vacancies and temporary reductions in full time and part time staff positions.

21. Materials & Purchased Services are estimated to be less than the 2020 budget amount for anticipated reduced discretionary expenses for park program supplies, maintenance,

22. The staff recovery chargeback to the Conservation Areas has been assumed to be reduced as a result of WMSS staff vacancies and temporary staffing reductions and during the park closure period.

23. Park program revenue is estimated to be lower due to the parks being closed for two months and potential lower visitation and annual pass sales for the remainder of the year. It has also been assumed that the majority of park programs such as Ways of the Woods summer camp, camping, interpretative programs and food services will be reduced entirely or adversely impacted with COVID measures in place.

24. Municipal funding for the Outreach education program will be lower with temporary staffing reductions as a result of COVID impacts on program delivery and will be reallocated to other WMSS programs

CONSERVATION HALTON
CAPITAL PROJECT SUMMARY FINANCIAL APPENDIX
AS AT MAY 31 2020

Capital Project Description	Budget Prior Years	2020 Budget	Budget Incr./Decr. Note	Total Capital Budget	Prior Years Capital Costs	2020 Capital Costs	Life to Date Capital Costs	Budget Unspent	Project to be Closed	Capital Project Funding
Watershed Management & Support Services (WMSS)										
Kelso Dam - Rehabilitation Repairs	$8,365,000			$8,365,000	$7,882,829	$373,649	$8,256,478	$108,522		NDMP; MNRF; Mun. Debt Fin.
Hilton Falls Dam Diversion Phase 1 (2019)	$90,000			90,000	$21,732	8,257	29,989	60,011	Close	50% MNRF; 50% Reserve
Public Safety Plan Implementation	$72,000			72,000	$13,187	15,897	29,084	42,916	Close	50% MNRF; 50% Reserve
Hilton Falls Road Surface Upgrade	$0	84,430	(84,430)	-	$0		-	-	Close	50% MNRF; 50% Reserve
Hilton Falls Dam Phase 2	$0	825,084	(825,084)	-	$0		-	-	Close	50% MNRF; 50% Reserve
Milton Channel Repairs	$255,927		(255,927)	-	$0		-	-	Close	50% MNRF; 50% Reserve
Freeman Pond Flood Attenuation Assessment	$25,000		(25,000)	-	$0		-	-	Close	50% MNRF; 50% Reserve
Hilton Falls Dam Construction Phase 1 (2020)			220,000	220,000	$0		-	220,000		50% MNRF; 50% Reserve
Hilton Falls Dam Safety Repairs & Electrical Upgrades			150,000	150,000	$0		-	150,000		50% MNRF; 50% Reserve
Morrison Wedgewood Channel Spill		106,121	(6,121)	100,000	$0		-	100,000		50% MNRF; 50% Debt Financing
Scotch Block Dam Safety Repairs		246,738	53,262	300,000	$0		-	300,000		50% MNRF; 50% Debt Financing
Kelso Dam Safety Repairs			110,000	110,000	$0		-	110,000		50% MNRF; 50% Reserve
Kelso Dam Lift Gates and Hoists Refurbishment			120,000	120,000	$0		-	120,000		50% MNRF; 50% Reserve
Channel Replacement Design		50,000		50,000	$0		-	50,000		50% MNRF; 50% Reserve
Asset Management Plan	$100,000			100,000	$59,220	28,865	88,085	11,915		Reserve; Municipal
Emerald Ash Borer 2019	$1,154,000			1,154,000	$1,088,061		1,088,061	65,939		Municipal - EAB; Lumber sales
Emerald Ash Borer 2020		862,243		862,243	$0	679,603	679,603	182,640		Municipal - EAB; Lumber sales
Flood Forecasting & Warning	$74,534	115,000	49,960	239,494	$0	118,503	118,503	120,991		Municipal
Floodplain Mapping - 2018 (Grindstone)	$466,626			466,626	$395,429	33,946	429,375	37,251		50% Federal NDMP; 50% Municipal
Floodplain Mapping - 2019 (Urban Milton & Morrison-Wedgewood)	$466,626			466,626	$278,006	172,125	450,131	16,495		50% Federal NDMP; 50% Municipal
Floodplain Mapping - 2020		330,000		330,000	$0		-	330,000		Other Municipal - Halton Region
Watershed Planning / Municipal Natural Assets Inititative	$10,000	25,000		35,000	$3,500	31,500	35,000	-		Municipal
Watershed Database Management System	$75,000			75,000	$31,731		31,731	43,269		Municipal
Administration Office Renovations	$129,000	252,000		381,000	$44,042	43,903	87,945	293,055		Reserves
Operations Centre Capacity Study		100,000		100,000	$0		-	100,000		Reserve
Information Technology & Digital Transformation - WMSS	$179,961	199,000		378,961	$0	40,143	40,143	338,818		Municipal
Website Upgrade		100,000		100,000	$0		-	100,000		Municipal; Reserves
Payroll System Upgrade - Phase 1 & 2	$89,500			89,500	$69,736		69,736	19,764		Municipal; Reserves
Great Plains upgrades	$35,000	25,000		60,000	$0		-	60,000		Municipal
Ortho Imagery	$60,000			60,000	$10,446		10,446	49,554		Municipal
Lidar Imagery		40,000		40,000	$0		-	40,000		Municipal
Program rates & fees review	$60,000			60,000	$59,038		59,038	962		Municipal
Vehicle and Equipment Replacements- WMSS	$0	194,339		194,339	$0	(2,775)	(2,775)	197,114		Reserve
Forest Management	$73,689			73,689	$60,689		60,689	13,000		Municipal
Land Management			15,000	15,000	$0	3,918	3,918	11,082		Reserve
Giant's Rib Geopark	$100,000	100,000		200,000	$0		-	200,000		Other funding
Clappison & Waterdown Woods		25,000		25,000	$0		-	25,000		Municipal
Glenorchy	$15,151			15,151	$0		-	15,151		Other and Reserve
Speyside Weir Removal	$31,500	32,000		63,500	$0		-	63,500		Reserve
Conservation Areas Facility & Infrastructure:										
Kelso/Glen Eden/Parks - Master Plan	$140,000			140,000	$98,358		98,358	41,642		Reserve
Kelso/Glen Eden - Water/Wastewater Servicing (Dev. Contr'n)	$704,035			704,035	$622,140		622,140	81,895		Dev. Contribution funding
Kelso & Crawford Lake Visitor Centres - Dev. Contr'n Works	$375,000	250,000		625,000	$51,893	85,342	137,235	487,765		Dev. Contribution funding
Kelso/Glen Eden - Ski/Snowboarding Capital Expenditures	$0	100,000		100,000	$61,399		61,399	38,601		Reserve
Facility and Infrastructure Major Maintenance	$20,000	330,000		350,000	$0	33,718	33,718	316,282		Reserve
Foundation Funded Capital Projects	$0	100,000		100,000	$0		-	100,000		CH Foundation
Information Technology Insfrastructure - Conservation Areas	$0	75,000		75,000	$0	15,877	15,877	59,123		Reserve
PCI Compliance	$235,000			235,000	$175,007		175,007	59,993		Reserve 95%; Municipal 5%
Vehicle and Equipment replacements - Conservation Areas	$0	165,556		165,556	$0	26,439	26,439	139,117		Reserve
Total Capital Projects	**$13,402,549**	**$4,732,511**	**($478,340)**	**$17,656,720**	**$11,026,442**	**$1,708,910**	**$12,735,352**	**$4,921,368**		

Conservation Halton

June 2020

REPORT TO: Conservation Halton Board of Directors

REPORT NO: # CHBD 05 20 05

FROM: Marnie Piggot, Director Finance

DATE: June 25, 2020

SUBJECT: **Asset Management Plan - Phase 3**

Recommendation

THAT the Conservation Halton Board of Directors **approve the Asset Management Plan – Phase 3 attached to the staff report dated June 25, 2020.**

Executive Summary

As part of the 2017 Budget municipal funding approval, Region of Halton Council requested that Conservation Halton's Board of Directors complete an Asset Management Plan.

The first phase of the Conservation Halton Asset Management (AM) Plan focussed on dams and channels being the largest category of amortized assets and area of highest risk. The Dams and Channels Asset Management Plan was completed by staff and approved by the Conservation Halton Board of Directors in 2017. The second phase of the Asset Management Plan process was completed in 2019 and considered all Conservation Halton facilities, the second largest group of amortized assets. The remaining amortized assets were included in the third and final phase to develop a comprehensive Asset Management Plan. Phase 2 and 3 Asset Management Plans have been prepared by Watson & Associates.

The Asset Management Plans were developed following the requirements established for municipalities through the Province's guide *Building Together – Guide for Municipal Asset Management Plans.*

Based on the asset replacement and rehabilitation costs and assumptions on average useful life, the total average lifecycle costs are estimated to be $1,541,177 annually for the assets covered in the Phase 3 Asset Management Plan. The following table allocates this amount based on assets by Watershed Management & Support Services (WMSS) and Conservation Area programs.

Funding Source	Average Annual Lifecycle Cost
Watershed Management and Support Services (WMSS)	$331,587
Conservation Areas	$1,209,590

Lifecycle renewal and replacement expenditures related to WMSS assets are currently funded in the 2021 preliminary budget from the Vehicle and Equipment Reserve of $167,562 and Municipal Capital Funding for Information Technology Infrastructure of $122,000 totalling $289,562. The 2021 funding

gap of approximately $42,000 can be accommodated through the prioritization of asset replacements. WMSS asset replacement funding gaps will continue to be assessed during the budget preparation process.

Lifecycle replacement and renewal needs for the Conservation Areas assets are supported by a capital reserve that is funded from the annual operating surplus. The Asset Management Plan shows there is a funding gap in the first three years though, the balance of the capital reserve is sufficient to offset the short-term funding gap by 2025 according to the 2021 preliminary budget Parks capital forecast.

Report

The attached Asset Management Plan – Phase 3 prepared by Watson & Associates and Conservation Halton staff contains details on Levels of Service, Lifecycle Management Strategy and Financial Strategy. The Asset Management Plan will assist Conservation Halton staff in ensuring that its assets continue to support the needs of visitors and staff in a financially sustainable manner. A summary of the AM Plan – Phase 3 follows:

The plan covers 1,490 assets, some of which are pooled. The current replacement value of these assets is $31.7 million. Details of the types of assets and replacement values are included in the table below.

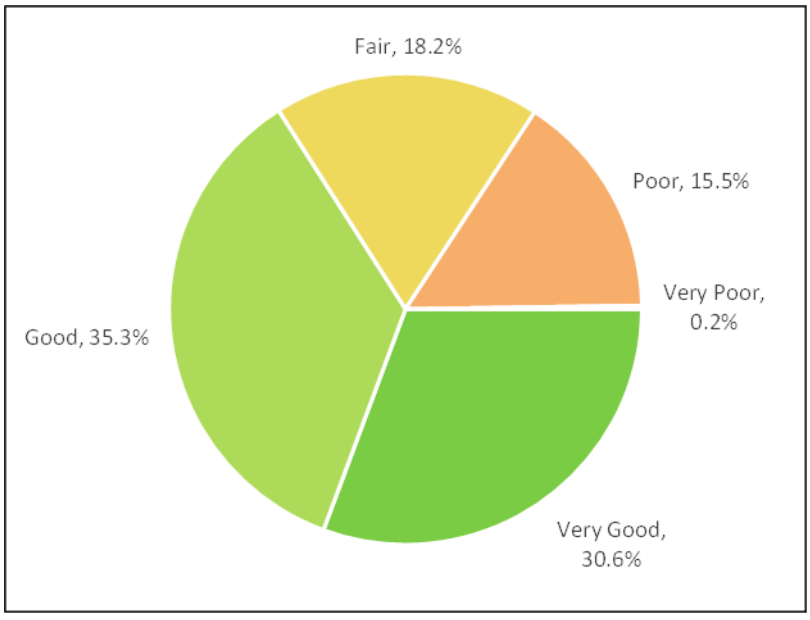
Asset Group	Replacement Value
Equipment	$12,352,781
Infrastructure	$13,876,439
Vehicles	$3,246,085
Computers	$854,461
Land Improvements	$730,447
Furniture	$590,692
Total	$31,650,095

The only Phase 3 assets that had direct condition assessments were asphalt roads, tar & chip roads, and paved pathways with a replacement value of $4.6 million, representing 15% of asset replacement value. For assets that have not had their condition assessed directly, an age-based assessment was used.

A five-point scale ranging from Very Good to Very Poor with qualitative descriptions of how assets perform at each condition rating and age range based on industry standards was applied as follows:

Rating		Description	Age Range (Percentage of Average Useful Life)
	1 Very Good	No user concerns.	Age ≤ 45%
	2 Good	Deterioration causes minimal influence on use. Occasional user concerns.	45% < Age ≤ 90%
	3 Fair	Some deterioration beginning to be reflected in minor restrictions on operational uses. User concerns.	90% < Age ≤ 140%
	4 Poor	Greater frequency of unscheduled repairs. Reliability decreasing.	140% < Age ≤ 200%
	5 Very Poor	Likely not to be suitable for use.	200% < Age

The overall condition of Phase 3 assets based on the categorization of assets by the average useful lives assigned to assets and asset replacement values is provided in the following chart.



The assets in the Very Poor category were determined to not pose a current safety risk. The AM Plan recommends that Conservation Halton implement a goal to have less than 10% of Phase 3 assets rated as Poor and no assets rated as Very Poor within the next five years. This goal will be considered annually during asset inspections and in the preparation of annual budget and capital forecast to ensure this goal is achieved. The five-year period is in line with the updating of all AM Plans every five years included in the 2021 preliminary budget capital forecast.

Lifecycle Management Strategies in this plan include guidelines on when to replace assets and the replacement identification method for all Phase 3 assets. Service level objectives were developed by staff as a potential driving factor for the replacement of assets if an asset. An asset may need to be replaced if it is not meeting the service level objective identified. The service level objectives established by the Conservation Halton staff team in this AM plan are as follows:

- Ensure positive user experience;
- Maintain reliability;
- Avoid obsolescence;
- Minimize lifecycle cost; and
- Ensure safety.

The Financial Strategy outlined in Section 4 of the AM Plan includes a recommendation for increased sustainable funding for the WMSS program. The AM Plan noted a funding gap of $1.4 million over a ten-year period. This funding gap is largely related to no funding for the Vehicle and Equipment Reserve included in the budget forecast until 2025 and a potential shortfall based on increased vehicle replacement costs. Also, some asset replacement costs do not have funding directly identified in the budget capital forecast such as furniture that may be included in facility renovation projects.

Lifecycle replacement and renewal needs for the Conservation Areas assets are supported by a capital reserve that is sufficient to offset the short-term funding gap by 2025 according to the 2021 preliminary budget Parks capital forecast.

Impact on Strategic Goals

This report supports the Metamorphosis strategic theme of Striving for service excellence and efficiency. This theme is supported by the objective to provide clear financial data and analysis to support informed strategic and operational decision-making for budget development and long-term planning.

Financial Impact

There is no anticipated immediate impact as a result of the AM Plan Phase 3 on the 2020 financial projection and 2021 preliminary budgets. These budgets include sufficient funding for the current proposed asset replacements. Municipal funding, reserve contributions and Conservation Area operating surpluses have been considered in the 2021 preliminary budget to address priority capital budget requirements.

Assets rated as Poor and Very Poor will continue to be inspected and monitored by staff. Assets found to be in an unsafe and unusable condition by staff will be addressed as needed in 2020 and future capital budget forecasts.

Municipally funded contributions to the Vehicle Reserve are included in the 2021 preliminary budget reserve continuity to resume in 2025 based on the current reserve balance and planned replacements. The municipal funding contributions may need to begin earlier than 2025 based on the vehicle replacement amounts to be updated. Funding gaps for vehicle replacements will be considered in the preparation of future capital budget and forecasts to ensure reserve levels are sufficient to fund lifecycle management repair and replacement activities.

Conservation Halton

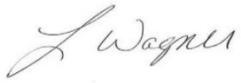
June 2020

Signed & respectfully submitted:

Marnie Piggot
Director, Finance

Approved for circulation:

Hassaan Basit
CAO/Secretary-Treasurer



Lawrence Wagner
Senior Director, Corporate Services

FOR QUESTIONS ON CONTENT: Marnie Piggot, Director, Finance; 905-336-1158, ext. 2240; mpiggot@hrca.on.ca

Asset Management Plan – Phase 3

Conservation Halton

Watson & Associates Economists Ltd.
905-272-3600
info@watsonecon.ca

June 11, 2020

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1. Introduction

1.1 Overview

Conservation Halton's vision is to sustain a healthy watershed with clean streams, vigorous forests, abundant green space, and balanced growth that results in strong livable communities. Conservation Halton has three main areas of focus: water resource management, forest resource management, and lifelong education and recreation. This report covers assets that support all three of these areas.

Conservation Halton has been completing an asset management plan for its assets in a phased approach:

- Phase 1 to cover flood control infrastructure consisting mainly of dams and channels;
- Phase 2 to cover all Conservation Halton staff and park facilities; and
- Phase 3 to cover all other assets not included in Phase 1 or Phase 2.

Phase 1 was completed by Conservation Halton staff. Watson & Associates Economists Ltd. (Watson) completed Phase 2 in 2019. This report is the third and final phase, and encompasses all assets not covered in the first two phases.

This plan covers a wide variety of assets, including tractors, laptop computers, LCD screens, boardwalks, roads, and ski lifts, among others. For these assets to meet the needs of users, they need to be actively maintained. Mechanical equipment wears out over time, becoming less reliable. Roads develop potholes and other defects. Electronic equipment eventually fails or becomes obsolete. Even assets not exposed to obvious stress slowly degrade over time as they age. Conservation Halton needs to have a strategy for how to manage the replacement of Phase 3 assets that ensures they will continue to support the needs of users of the assets. This is the purpose of this Phase 3 asset management plan.

The main objective when developing an asset management plan is to use the organization's best available information to develop a comprehensive long-term plan for the assets covered by the plan. The plan is intended to be a tool for staff to use during various decision-making processes, including the annual budgeting process and working with other stakeholders. In particular, the plan will help Conservation Halton

work with municipalities located in the watershed that provide financial support, Halton Region being the largest municipal funder. In addition, the plan should provide a sufficiently documented framework that will enable continual improvement and updates of the plan to ensure its relevancy over the long term. Ultimately, the goal is for Conservation Halton to be able to manage its assets in a manner that will support a sustainable provision of services.

Conservation Halton retained Watson again to develop the Phase 3 asset management plan. This plan will serve as a road map for sustainable infrastructure planning going forward. Through the implementation of the asset management plan, Conservation Halton's practice should evolve to provide services at levels proposed within this document. Moreover, assets should be maintained at levels that allow for safe and functional use of the assets. Therefore, the asset management plan and the progress with respect to its implementation will be evaluated based on Conservation Halton's ability to meet these goals and objectives.

1.2 Asset Management Plan Development

The asset management plan was developed using an approach that leverages staff input in identifying current levels of service and proposed asset management strategies.

The development of this asset management plan is based on the steps summarized below:

1. Compile available information pertaining to Conservation Halton's capital assets to be included in the plan, including attributes such as average useful life, age, and current valuation. Update the current valuation, where required, using benchmark costing data or applicable inflationary indices.

2. Define and assess current asset conditions, based mainly on age. Road conditions were assessed during the facility condition assessment completed by McIntosh Perry Limited.

3. Define and document current levels of service based on discussions with staff.

4. Develop an asset management strategy that identifies the lifecycle activities required to sustain the levels of service discussed above. The strategy

summarizes these activities in the forecast of annual capital expenditures required to achieve these level of service outcomes.

5. Develop a financing strategy to support the lifecycle management strategy. The financing plan informs how the capital expenses arising from the asset management strategy will be funded over the forecast period.

6. Document the asset management plan in a formal report to inform future decision-making and to communicate planning to stakeholders.

Asset management plans are developed in an iterative process. This plan has been developed based on current data and understanding of how the assets covered in this plan are used. Future updates to this plan may need to revisit assumptions used in the development of this plan to better reflect new data and insights on how assets are being used.

1.3 Asset Overview

This section provides an overview of the scope and value of assets covered by this plan. The plan covers 1,490 assets,[1] some of which are pooled. The current replacement value of these assets is $31.7 million – all values in this section are in 2020 dollars. Assets range in value from $2.1 million for the Twister chair lift at Glen Eden to ski rental equipment where individual items such as helmets have values as low as $30.

Asset replacement values were estimated as follows. Assets where the historical cost and age is known had a preliminary estimate made by inflating the historical cost to 2020 dollars. These costs were then reviewed and updated by Conservation Halton staff. Where inflated historical costs seemed inaccurate, staff provided current replacement costs based on market prices or recent purchases. Roads and parking lot construction costs were estimated based on benchmarking from recent municipal asset management plans. The cost for roads, parking lots, and paved walkways are based on the square metre costs shown in Table 1-1.

[1] Software assets currently recorded in the tangible capital asset (TCA) inventory are not covered in this report because, in the future, software is expected to be managed through a service licence agreement with annual fees paid through the operating budget.

Table 1-1
Construction Costs for Roads and Paved Paths by Surface Type

Surface Type	Construction Cost (per m²)
Asphalt	$105.60
Tar & Chip	$50.00
Gravel	$40.00

Conservation Halton categorizes assets covered by this plan into the six major asset groups shown in Table 1-2.

Table 1-2
Asset Groups

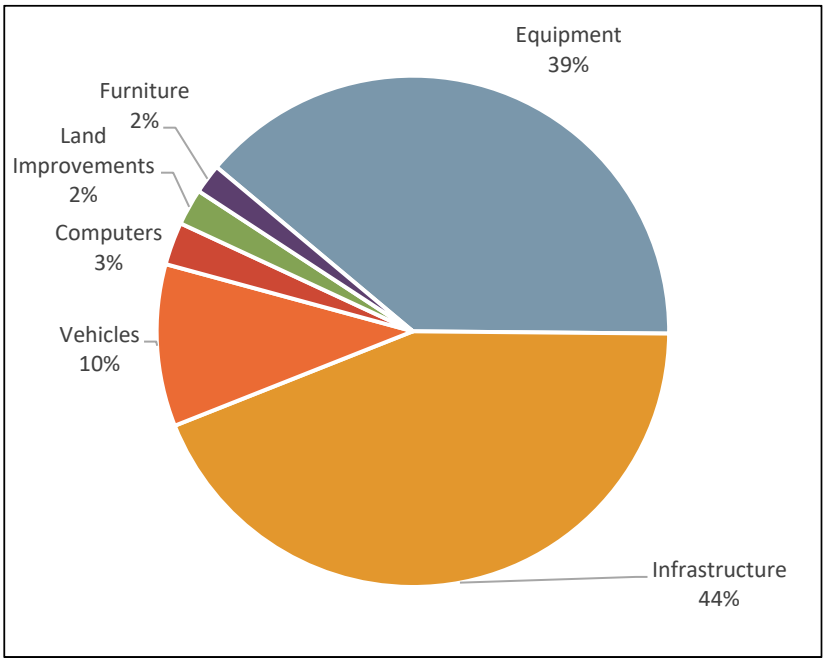
Asset Group	Examples
Equipment	Freezer, snack machine, boat motor, snow gun, and ski lift
Infrastructure	Roads, parking, lookout wall, fencing, and ski hill lighting
Vehicles	Pickup truck, ATV, snowmobile, golf cart, and groomer
Computers	Laptop, tablet, server, printer, and switch
Land Improvements	Ski hill grading and trail extension
Furniture	Chair, desk, work bench, sales counter, and display case

The distribution of replacement value by these six asset groups is shown in Figure 1-1. The top three groups (by asset value) are: infrastructure (44%), equipment (39%), and vehicles (10%). The remaining three groups – computers, land improvements, and furniture – together compromise 7% of replacement value.

Table 1-3
Asset Replacement Value by Asset Group

Asset Group	Replacement Value
Equipment	$12,352,781
Infrastructure	$13,876,439
Vehicles	$3,246,085
Computers	$854,461
Land Improvements	$730,447
Furniture	$590,692
Total	$31,650,095

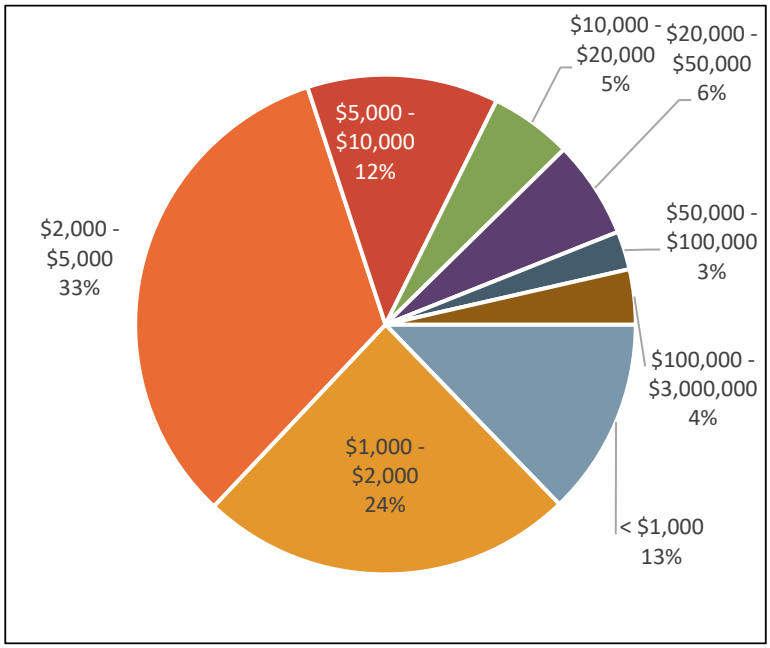
Figure 1-1
Asset Replacement Value by Asset Group



While gravel roads and parking lots are included in total replacement values in Table 1-3 and Figure 1-1, they are not included in the rest of the AMP because there are no capital expenditures anticipated for gravel roads and parking lots. Gravel surfaces are managed by periodically regrading the surface. Conservation Halton will manage this activity through the operating budget. The replacement value for gravel parking lots is estimated to be $3.5 million and is captured in the infrastructure category in Table 1-3 and Figure 1-1.

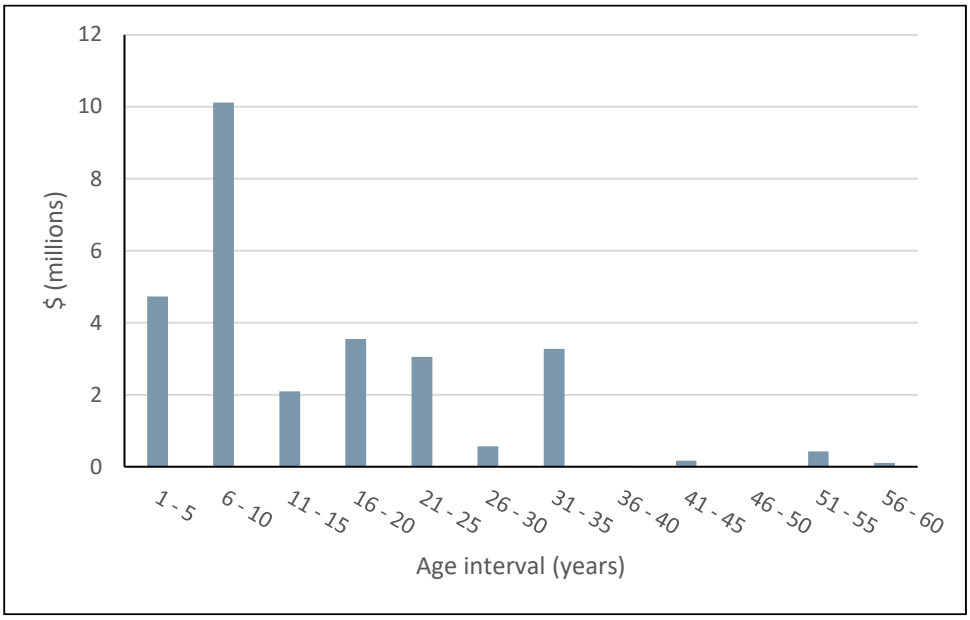
The range of asset value varies significantly for Phase 3 assets. Figure 1-2 shows the distribution of assets by replacement value in order-of-magnitude categories. A significant majority of assets, 82%, are valued less than $10,000.

Figure 1-2
Distribution of Asset Count by Replacement Value



The average age (weighted by replacement value) of assets covered by this plan is 14.8 years. The oldest asset covered by this plan is a 58-year-old lookout wall at Rattlesnake Point park built in 1962. Figure 1-3 shows the distribution of replacement value by 5-year age intervals. Just over half the assets are less than 10 years old.

Figure 1-3
Distribution of Replacement Value by Asset Age



1.4 Asset Condition

The only Phase 3 assets that have had direct condition assessments are asphalt roads, tar & chip roads, and paved pathways. These assets have a replacement value of $4.6 million, representing 15% of asset replacement value. These assets were evaluated during the 2018 facility condition assessment completed by McIntosh Perry. The report uses a 5-point scale: Very Good, Good, Fair, Poor, and Very Poor. On average, paved pathways are in Good condition, asphalt roads are in Fair condition, and tar & chip roads are in Poor condition.

For assets that have not had their condition assessed directly, an age-based assessment will be used. The first step in developing age-based condition ratings is developing a qualitative understanding of what the condition levels are intended to mean. Table 1-4 is adapted from a table in the International Infrastructure Management Manual (IIMM).[1] It presents a five-point scale ranging from Very Good to Very Poor with qualitative descriptions of how assets perform at each condition rating. Assets are

[1] Page 122, International Infrastructure Management Manual, 2015. Institute of Public Works Engineering Australasia.

typically expected to be replaced when deterioration begins to affect usability, at a condition of Fair.

Table 1-4
Condition Ratings With Qualitative Descriptions

Rating	Description
1 Very Good	No user concerns.
2 Good	Deterioration causes minimal influence on use. Occasional user concerns.
3 Fair	Some deterioration beginning to be reflected in minor restrictions on operational uses. User concerns.
4 Poor	Greater frequency of unscheduled repairs. Reliability decreasing.
5 Very Poor	Likely not to be suitable for use.

An asset's age is compared to its average useful life to estimate its condition. The process starts with calculating an asset's remaining useful life percentage (UL %). UL % is the ratio of the age to the average useful life expressed as a percentage. For example, an eight-year-old asset with an average useful life of 10 years would have a UL % of 80%. UL % can be greater than 100%. For example, if a 12-year-old asset has an average useful life of 10 years, its UL % is 120%.

This is not a precise way of assessing condition. Assets deteriorate at different rates depending on how they are used and potentially on how well they are made. This means that assets with the same UL % may be in different conditions, even for identical assets. Conditions estimated based on age, therefore, need to be interpreted with caution. Despite this limitation, age-based condition assessment is considered to be a reasonable proxy for actual condition.

Translating UL % to a descriptive condition rating depends on how average useful life is defined and how assets are managed. In this plan, average useful life is interpreted as

the average age at which assets are replaced. When an asset is replaced, on average, depends on how the asset is managed. Good asset management would have assets replaced when asset deterioration begins affecting the use of the asset in non-trivial ways. From Table 1-4, this would be somewhere in the Fair condition level. The table referenced in the IIMM suggests that assets are in Very Good condition up to 45% of their average useful life and in Good condition until 90% of average useful life. It does not suggest transition points from Fair to Poor, or from Poor to Very Poor. Table 1-5 is an expanded version of Table 1-4 with the suggested transition points from Very Good to Good, and Good to Fair used. The last two transitions were chosen so that assets would reach Very Poor at twice their average useful life.

Table 1-5
Condition Ratings With Qualitative Descriptions and Age Ranges

Rating	Description	Age Range (Percentage of Average Useful Life)
1 Very Good	No user concerns.	Age ≤ 45%
2 Good	Deterioration causes minimal influence on use. Occasional user concerns.	45% < Age ≤ 90%
3 Fair	Some deterioration beginning to be reflected in minor restrictions on operational uses. User concerns.	90% < Age ≤ 140%
4 Poor	Greater frequency of unscheduled repairs. Reliability decreasing.	140% < Age ≤ 200%
5 Very Poor	Likely not to be suitable for use.	200% < Age

Average useful lives were assigned to assets that were not directly assessed by reviewing accounting assumptions used for amortizing capital costs and updating any that did not align with asset management practices in the field. While there is a subjective component to assigning average useful lives, the values used leverage staff experience working with these assets.

Based on the categorization of UL % into condition states and the average useful lives assigned to assets, the condition for all assets can be reported. Figure 1-4 shows the distribution of replacement value for all assets by condition rating. Two-thirds of assets (66%) are in Very Good or Good condition and are likely to be operating well. Assets assessed as Fair account for 18% of replacement value. These assets are likely beginning to show their age but are operating with minor issues. The remaining 16% of assets are in Poor or Very Poor condition and should be monitored closely.

Figure 1-4
Distribution of Asset Replacement Value by Condition Rating

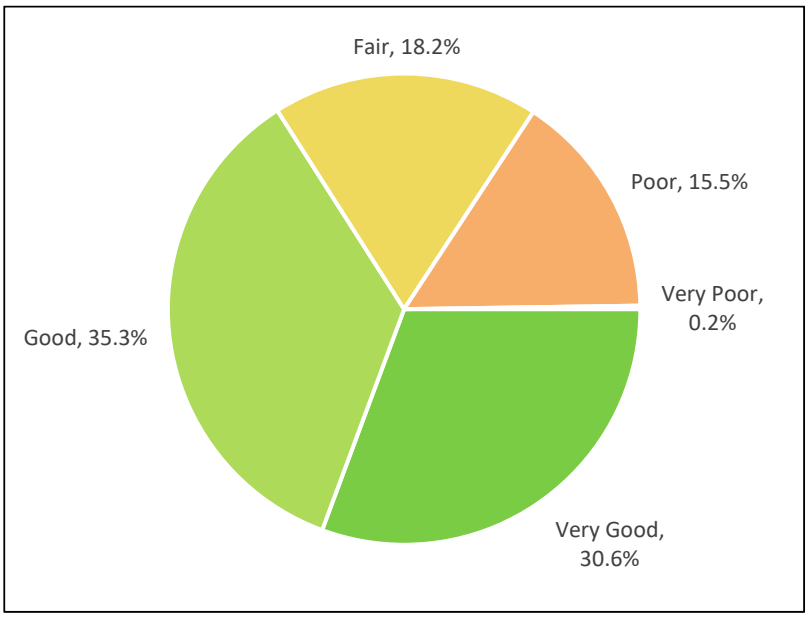
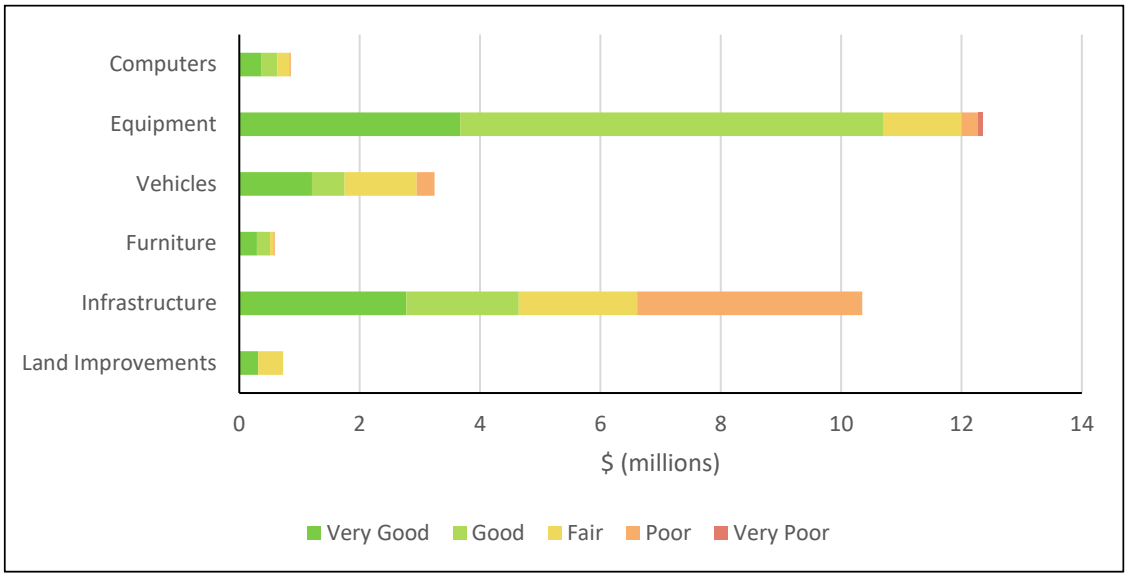


Figure 1-5 breaks down asset replacement value by asset group and condition. The assets in Very Poor condition are all in the equipment group. The infrastructure asset group has a substantial replacement value rated as Poor, 95% of which is roads. Since roads have been assessed directly, they are known to be in a poor state of repair with certainty. More immediate action to improve their condition may be warranted.

Figure 1-5
Asset Replacement Value by Asset Group and Condition



As mentioned earlier, it is important to note that, since UL % is not a direct assessment of condition, rating assets as Poor or Very Poor does not necessarily mean that there are problems with the assets that will affect users of the assets. Instead, the ratings should be interpreted as indicating that the assets should be monitored closely.

2. Levels of Service

2.1 Introduction

Levels of service qualitatively and quantitatively describe the outputs assets deliver to the people who use them. They are key drivers for asset management because assets are not ends in themselves. The services and activities that the assets enable are what matter to an organization. Levels of service help clarify what these services are and include targets for service levels that inform asset management decisions.

The assets covered in this plan deliver a variety of services that meet different needs. The art of developing levels of service is to go into enough detail to cover most of the services delivered without becoming too onerous to maintain and interpret. Conservation Halton has expressed a desire to keep the asset management plan manageable by limiting the number of categories and divisions used in the plan. This helps arrange assets together that can be managed as a group with common processes and objectives. The consequence of this is that some of the levels of service analysis focuses more on grouping assets together for management purposes rather than precisely identifying the services being delivered by the assets. This is a deliberate compromise made to improve the functionality of the plan.

2.2 Services Supported by Assets

The assets covered in this plan have been grouped into seven categories with each category delivering a specific service or serving a particular need:

- Transportation;
- Sales and service;
- Site improvements and public furniture;
- Ski lifts and ski hill lighting;
- Snowmaking equipment;
- Staff work; and
- Support equipment.

The sections below describe these categories, give rationales for grouping the assets together, and provide examples of assets in the category.

2.2.1 Transportation

Transportation assets support the movement of people and things within and between Conservation Halton sites. Table 2-1 describes the assets that support transportation.

Table 2-1
Transportation Assets

Sub Area	Examples
Passenger transportation	SUV and Dodge Grand Caravan
Worker plus equipment transportation	Pickup truck and utility cart
Hauling	Trailer
Remote access	ATV, snowmobile, and rescue boat
Transportation network	Roads, parking lot, bridge, and paved walkway

2.2.2 Sales and Services

Assets in this category support interactions between Conservation Halton staff and the public. Staff sell a variety of things, e.g. park memberships, souvenirs, and food. They also provide services such as giving presentations and helping park visitors who are in distress. The assets in this category are described in Table 2-2.

Table 2-2
Sales and Service Assets

Sub Area	Examples
Sales equipment	Point of sale computer and annual pass card printer
Furniture	Sales counter and podium
Food preparation equipment	Grill, barbecue, and refrigerator
Rental equipment	Skis, snowboard, paddle board, and canoe

2.2.3 Site Improvements and Public Furniture

Assets in this category support use of the outdoor spaces in a number of ways. These assets make outdoor spaces inviting, useable and safe. Table 2-3 describes assets in this category.

Table 2-3
Site Improvements and Public Furniture Assets

Sub Area	Examples
Defining spaces	Fence and gate
Wayfinding	Trail head and entrance signs
Safety	Stairs, lookout wall, railing, and boardwalk
Outdoor equipment storage	Ski rack and pole rack

2.2.4 Ski Lifts and Ski Hill Lighting

The Glen Eden ski hill is owned and operated by Conservation Halton. For the ski hill to operate, skiers and snowboarders need to be moved from the base of the hill to the top efficiently and safely. Ski hill lighting is needed to extend the operating hours into the evening, making the hill accessible to people who work during the day. The title of the category fully describes the assets used to deliver the service.

2.2.5 Snowmaking Equipment

For the Glen Eden ski hill to operate long enough each season to be sustainable, artificial snow needs to be added when the weather is cold enough to build up the snow base. The equipment to produce snow consists of three main components: snow guns that produce the snow, pipelines that deliver water and pressurized air to the snow guns, and pumps and compressors to feed the pipelines.

2.2.6 Staff Work

This category is very broad, capturing assets that staff use as part of their work that do not fall into other categories. These assets are grouped together because they are not used directly by the public. To a large extent, the staff using the assets can be relied

upon to observe and report any problems with the assets that develop over time. Table 2-4 summarizes the assets in this category.

Table 2-4
Site Improvements and Public Furniture Assets

Sub Area	Examples
Furniture	Desk, chair, filing cabinet, and workbench
Motorized tools	Mower and tractor
Attachments	Manure spreader and cultivator
Tools	Table saw, roto-hammer, welder, and snowblower
Electronics	GPS, radio, audio visual equipment, digital camera, turbidity meter, and rain gauge
Computers	Laptop, tablet, and printer

2.2.7 Support Equipment

This category is similar to the staff work category in that it contains assets that the public do not use. Unlike the staff work category, these assets play a supporting role and may sit idle most of the time. They need to be routinely inspected to ensure that they are operating properly and available for use when needed. Table 2-5 summarizes the assets in this category.

Table 2-5
Support Equipment Assets

Sub Area	Examples
Storage	Cabinet, safe, gas & oil tanks, and fire box
Safety	Defibrillator, rescue tools, rescue board, fire cistern, and video surveillance
Garbage disposal	Garbage and recycling containers
Electrical systems	Transformer, solar panel, generator, telephone system, fiberoptic cabling, and battery backup

2.3 Analysis of Assets in Terms of Asset Category

2.3.1 Breakdown of Replacement Values by Asset Category

Figure 2-1 shows the breakdown of asset replacement values by category. The top two categories by replacement value are ski lift/lighting (25%) and transportation (23%), which together account for almost half the asset replacement value. The next three largest categories are snowmaking equipment (16%), site improvements (15%), and staff work (14%). They are all roughly the same size and, combined, account for 45% of the total replacement value. The final two categories are support equipment (4%) and sales and rentals (3%).

Figure 2-1
Asset Replacement Value by Category

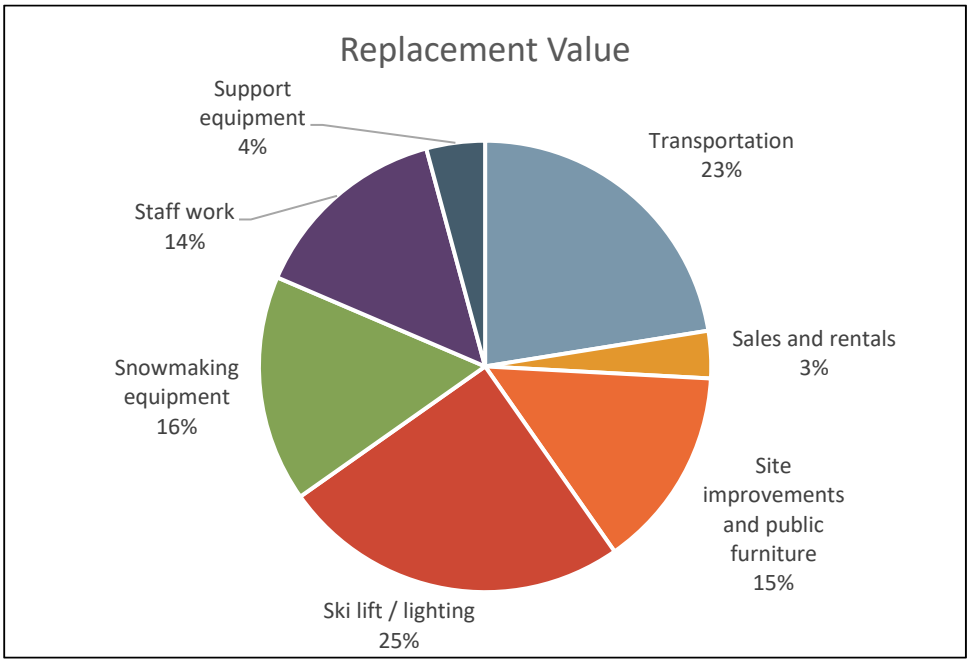
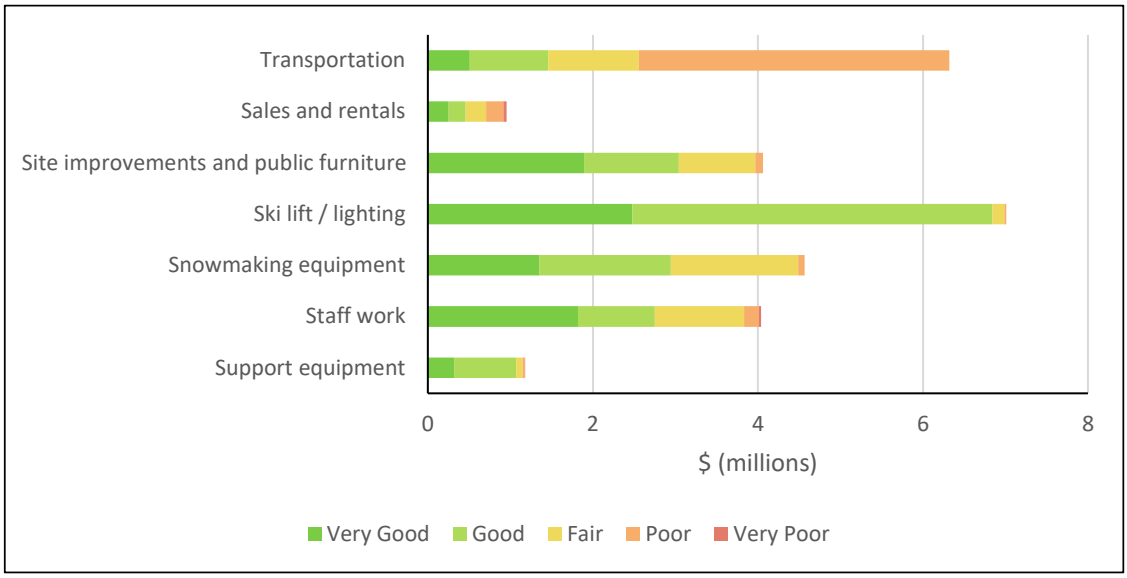


Table 2-6 shows the average condition of assets in each category, weighted by replacement value. Figure 2-2 provides more detail by showing the replacement value by category and condition rating. As noted earlier, roads have been rated as being in Poor condition. Their high replacement value brings the average condition down for transportation assets resulting in the average condition of Fair. There is no clear sub-category of sales and rentals service assets that is bringing down the average.

Table 2-6
Weighted Average Asset Condition by Service

Service	Weighted Average Condition
Transportation	Fair
Sales and rentals	Fair
Site improvements and public furniture	Good
Ski lift/lighting	Good
Snowmaking equipment	Good
Staff work	Good
Support equipment	Good

Figure 2-2
Asset Replacement Value by Service and Condition Rating



The analysis of asset condition by category shows that none of the seven categories that have been identified have assets in an advanced state of overall disrepair. The transportation and sales and rentals categories may require increased attention because of their lower average condition state.

2.4 Level of Service Targets

When condition is assessed based on age, there are two ways to set targets for levels of service. First, the fraction of assets that are allowed to be in the Fair, Poor, and Very Poor conditions can be adjusted. Second, the estimates of average useful life used to calculate UL % can be adjusted to reflect different expectations for asset performance.

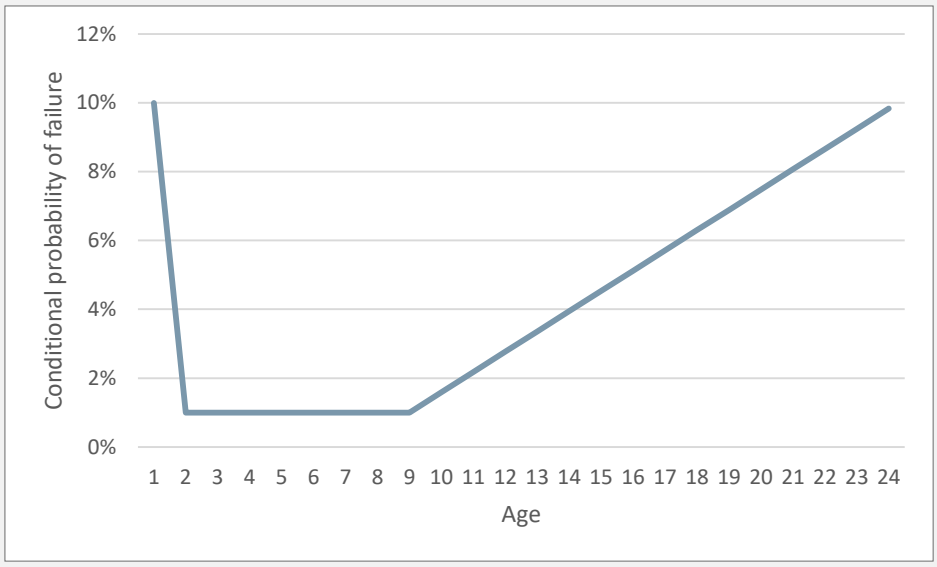
If asset average useful lives are set to reflect the qualitative condition descriptions for user experience provided in Table 1-5, the flexibility in assigning average useful lives is reduced to a certain degree. There is still some ambiguity of what constitutes a minor restriction in the use of an asset and what types of user concerns are important for asset replacement decisions. Despite this, if assets are being replaced as they wear out, it is likely that most assets will not make it past a UL % of 140%, the transition between condition ratings Fair and Poor.

Box 1
Understanding How Assets Fail

Assuming that the average useful life is chosen appropriately to target replacement soon after an asset enters the Fair condition state based on the user's perception of the asset's performance, the amount of variation in actual age of replacement is constrained by how assets degrade over time and the properties of mathematical averages.

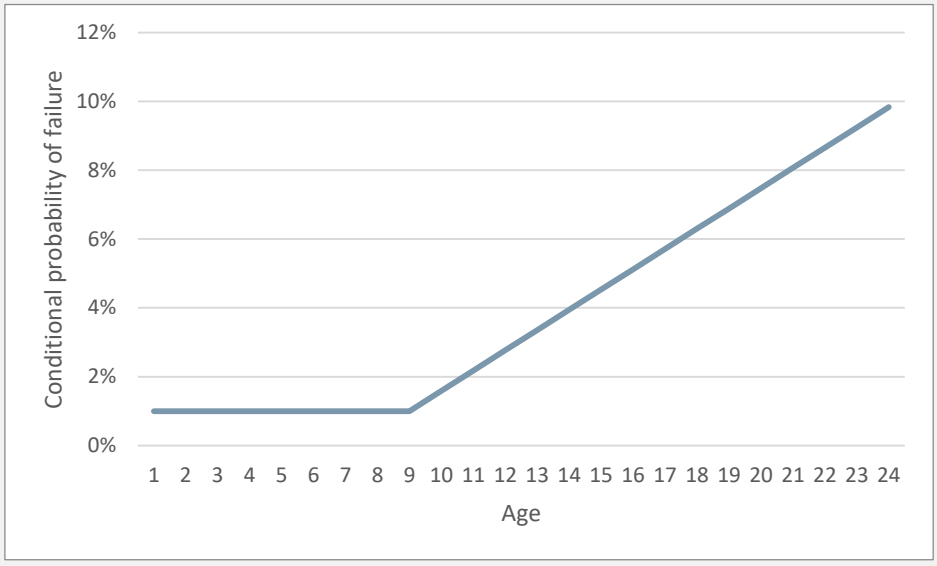
Most assets have a conditional probability of failure similar to the one shown in Figure 2-3. This graph is called a "bathtub curve" because of its resemblance to a bathtub. It presents the probability that an asset will fail in a particular year, given that it has survived to that age. Failures early on are part of the burn-in phase. Assets sometimes fail early because of defective parts that fail soon after the asset is put into service. Following the burn-in phase, there is a phase where the failure rate is low and stable. The asset reached this stage because it was properly made and is operating as it should throughout the phase. Then at some point, wear and tear starts interfering with usability and motivates replacement. As an asset ages, the risk of failure grows as more components start showing their age.

Figure 2-3
Example of Typical Conditional Probability of Failure for Asset With Average Useful Life of 20 Years – Bathtub Curve



For asset management purposes, failures during the burn-in phase can be ignored because replacements are usually covered under warranty. With this simplification, the conditional probability of failure resembles a hockey stick, as shown in Figure 2-4.

Figure 2-4
Modified Bathtub Curve



The timing of failures for assets following this type of conditional failure function tend to cluster around the average useful life in a pattern similar to a bell curve.

Since the average useful life is defined mathematically as the average age of typical replacement, the bell curve must peak near the average useful life. This means that the only way for assets to require replacement significantly before or after the average useful life is for the bell curve to be flat with wide tails (i.e. a large variance around the average). This would result in having about the same number and degree of early and late failures. Significant numbers of early asset failures have not been observed. This leaves only two reasons for assets having a UL % significantly higher than 100%:

- The assets are in fact in Poor condition and should be replaced; and
- The estimate of average useful life is too short.

Since the average useful lives assigned to assets have been reviewed carefully as part of developing this asset management plan, the most likely reason for an asset to be rated as Poor or Very Poor is that it is old and needs to be closely monitored.

The analysis in Box 1 indicates that it is likely that assets rated as Poor and Very Poor are in fact in need of replacement, either now or in the near future. Figure 1-4 showed that 15% of assets currently have a condition rating of Poor and 0.2% are rated Very Poor. If the assigned average useful lives were fully reliable and there were no funding constraints, all the assets rated Poor and Very Poor would be replaced. In this situation, a good level of service target would be to have no assets rated Poor or Very Poor.

Since this is the first formal asset management plan for the assets covered in this plan, there is some uncertainty about the accuracy of the average useful lives assigned to assets. This means that some assets currently rated Poor and Very Poor may in fact have their ratings improve if their average useful lives are revised upwards. Since funding is limited, it will take time to address the backlog of assets that do in fact need replacing. For these reasons, a more modest target is more appropriate.

Service level target: Conservation Halton intends to reduce the proportion of assets (measured by asset replacement value) falling into the Poor and Very Poor ratings over

time. In the next five years, Conservation Halton expects to be able to reduce the proportion of assets rated Poor from 15% to 10% and to have no assets rated Very Poor.

3. Lifecycle Management Strategies

Most assets covered by this plan have simple lifecycles where regular maintenance and repair is all that is needed throughout the lives of the assets. From an asset management plan perspective, the only lifecycle activity is the eventual replacement of the asset at the end of its useful life. The exception is asphalt roads that can be rehabilitated part way through their useful lives by applying a new surface layer. Section 3.1 addresses roads and asphalt pathways, followed by section 3.2 which addresses the various ways decisions are made to replace the other assets.

3.1 Roads and Asphalt Pathways

As mentioned earlier, gravel roads and parking lots are managed through regular grading work that is considered an operating expense. There are no capital expenditures needed to maintain them. They are therefore not included in this section. The two surface types for roads, parking lots, and pathways that do require capital investments are: asphalt and tar & chip.

3.1.1 Asphalt

Only 12% of hard-top road and parking surfaces are asphalt. Of the asphalt surface area, 58% is at the administration office. The rest is at Kelso and Rattlesnake Point Parks on steep road sections where tar & chip surfaces would not last. Given the limited scale of the use of asphalt surfaces, developing a formal assessment procedure is unlikely to be cost effective. Instead, periodic subjective assessments by staff will identify when work needs to be done.

Asphalt surfaces typically have a lifespan of about 20 years, so long as they are properly maintained and have one resurfacing during their lifespan. Costs for resurfacing and reconstruction based on recent work completed by Conservation Halton are shown in Table 3-1. Staff will monitor the condition of asphalt surfaces. When warranted, maintenance work such as crack-sealing and patching will ensure that the surface does not degrade prematurely. When the surface first begins to wear out, one resurfacing will be done to extend the useful life of the road segment. It is expected that the next time the surface begins to fail, it will be necessary to do a full reconstruction so that problems with the road base can be addressed.

Paved walkways at Crawford Lake, Kelso, and Mountsberg will be managed in the same way as asphalt roads.

Table 3-1
Activity Costs for Asphalt Surfaces

Lifecycle Activity	Asset Type	Cost ($/m²)
Resurface	Road	$7.56
	Pathway	$10.59
Reconstruct	Road	$37.78
	Pathway	$52.96

3.1.2 Tar & Chip

Conservation Halton plans to manage the tar & chip roads by regularly pulverizing the surface, addressing any underlying issues with the road base, and applying a double surface treatment to reseal the surface. This work is assumed to cost $10.00 per square metre based on work Watson has done on other projects. Conservation Halton plans to do this on a 5-year cycle because they have had good results in past years when this frequency was maintained.

3.2 Identifying When to Replace Assets

For the rest of the assets covered in this plan, since there are no lifecycle rehabilitation activities, decision rules for when the asset gets replaced need to be defined. While any given asset can be replaced for a variety of reasons, there is usually a primary factor that drives replacement. This factor is referred to in this plan as the service level objective. Service level objectives are developed in the next section. With service level objectives defined, methods for identifying when service level objectives are not being met need to be developed. These replacement identification methods are developed in section 3.2.3.

3.2.1 Service Level Objectives

While there is a wide variety of assets covered in this asset management plan and an even greater diversity in the specific ways assets can fail, the failures can be grouped by considering which service level objectives are being compromised. Service level objectives are aspects of an asset's performance that can be evaluated, at least qualitatively. In developing this asset management plan, five service level objectives were identified. They are:

- Ensure positive user experience;
- Maintain reliability;
- Avoid obsolescence;
- Minimize lifecycle cost; and
- Ensure safety.

3.2.1.1 Ensure Positive User Experience

Definition:

As assets age, they typically degrade in superficial ways due to wear-and-tear. Surfaces can be damaged with nicks and divots. Finishes can peel or become discoloured. While these minor defects may not affect primary functionality, they can have a negative impact on the overall user experience. This objective focuses on ensuring that users of assets are satisfied with the overall condition of an asset.

Example:

Rental canoes are technically functional if they are in one piece and have no leaks. Older canoes, however, accumulate visible dents and scrapes that are visually unpleasant and can affect steering. This makes them less desirable to renters.

3.2.1.2 Maintain Reliability

Definition:

Some assets are replaced when their performance degrades beyond an acceptable level or there is a risk of failure that is not acceptable.

Example:

A cafeteria freezer can contain food worth thousands of dollars that will spoil if the freezer breaks down. A freezer needs to be reliable to avoid costly losses to spoilage.

3.2.1.3 Avoid Obsolescence

Definition:

Assets that rely on technology that is evolving at a fast pace may need to be replaced with newer models to take advantage of increased performance. Even if an asset continues to function as intended, it may need to be replaced to meet ever-increasing expectations of users. This objective focuses on keeping up with changing technology.

Example:

Technology is evolving so quickly that computers are typically replaced every few years to ensure that new software and upgrades are supported.

3.2.1.4 Minimize Lifecycle Cost

Definition:

The total cost of using an asset is the initial cost of purchasing the asset plus the ongoing costs to operate and maintain it. This objective focuses on minimizing the average annual cost of using an asset.

Example:

As a car gets older, repair costs typically escalate to a point where it makes more sense to replace the car than to continue operating it.

3.2.1.5 Ensure Safety

Definition:

Some assets can fail in ways that can injure or kill users. This objective focuses on ensuring that assets do not fail in dangerous ways.

Example:

If a climbing rope fails, a climber could fall from a height that results in serious injury or death. Rope failure must be prevented.

3.2.2 Identifying Primary Service Level Objective

More than one of the five service level objectives may be relevant for some assets. For example, a carpet is typically replaced to ensure positive user experience. Older carpets show wear and can have stains that are visually unpleasant. Carpets are usually replaced when their appearance is deemed unacceptable. If a carpet is left in service long enough, though, it can become a safety hazard. If it becomes wrinkled or pulls away from the floor in places, it can be a tripping hazard and would need to be replaced to prevent falls.

While an asset can have multiple service level objectives that might be relevant, there is usually one that is dominant and drives replacement decisions. In the carpet example just discussed, ensuring a positive user experience is usually dominant because carpets are replaced long before they pose a safety hazard. Dominant service level objectives have been identified for all assets.

Having a dominant level of service identified helps when evaluating if an asset needs to be replaced. For example, if replacement of a carpet is being considered, knowing that ensuring positive user experience is the relevant service level objective focuses decision making. The service level objective makes it clear that the process should be based on a visual assessment of how the carpet affects the experience of being in the room. If ensuring safety was the dominant service level objective, then the focus should be on the mechanical integrity of the carpet.

Having a dominant service level objective also helps when making decisions about delaying replacements because of budgetary constraints. Replacements that are needed to minimize lifecycle costs or ensure safety should be given a higher priority than those that ensure a positive user experience.

3.2.3 Replacement Identification Methods

During development of this asset management plan, four primary methods for identifying when to replace assets were identified:

- Periodic assessment;
- In-use assessment;
- Scheduled automatic replacement; and
- Cost prohibitive repairs.

3.2.3.1 Periodic Assessment

Definition:

For a variety of reasons, it may be necessary to set up an assessment schedule for an asset. For example, this could be because users cannot easily detect a failure, are not able to report it efficiently, or are put at risk if a failure occurs.

Example:

Docks should be periodically inspected because users of a dock cannot easily identify structural issues that might be developing.

3.2.3.2 In-use Assessment

Definition:

When failure of an asset does not create undue risk and is detectable by users of the asset, identification of replacement needs can be left to the users of assets.

The replacement of an asset is triggered by a report of a failure by a user.

Example:

If a GPS unit stops working, the staff member using the device can either use an alternate device or reschedule the work. The unit would likely be replaced in the medium term.

3.2.3.3 Scheduled Automatic Replacement

Definition:

For some assets, assessing their performance or condition is not worth the expense. It is more cost effective to simply replace the assets on a schedule based on expected lifespan.

Example:

Battery backup devices may be replaced on a schedule because it is too difficult to evaluate the battery's reliability.

3.2.3.4 Cost Prohibitive Repairs

Definition:

For assets that have ongoing maintenance and repair work done, the cost of this work is tracked over time. If it is determined that a cost cannot be justified based on the age of the asset, the repair should not be done. Instead, the asset should be replaced.

Example:

Cars are often replaced when a particularly expensive repair is needed for an older vehicle.

3.2.4 Breakdown of Assets – Replacement Decision Process

Figure 3-1 shows the breakdown of replacement value by dominant service level objective. Assets that support the ensure positive user experience objective account for 37% of replacement value. This service level objective has some flexibility in that user experience could be reduced to meet budget constraints if necessary.[1] Maintain reliability and avoid obsolescence together account for 25% of replacement value. While compromises may not always be possible for these assets, in some cases less reliable or powerful equipment may be useable. Finally, minimize lifecycle cost and ensure safety together account for 38% of replacement value. These assets should be replaced as needs arise.

[1] It is noted that increases to the level of service may be considered in the future to address stakeholder interests or changing design standards. For example, costs for assets such as roads, parking lots, and pathways may increase due to a shift towards green infrastructure to reduce environmental impacts.

Figure 3-1
Asset Replacement Value by Dominant Service Level Objective

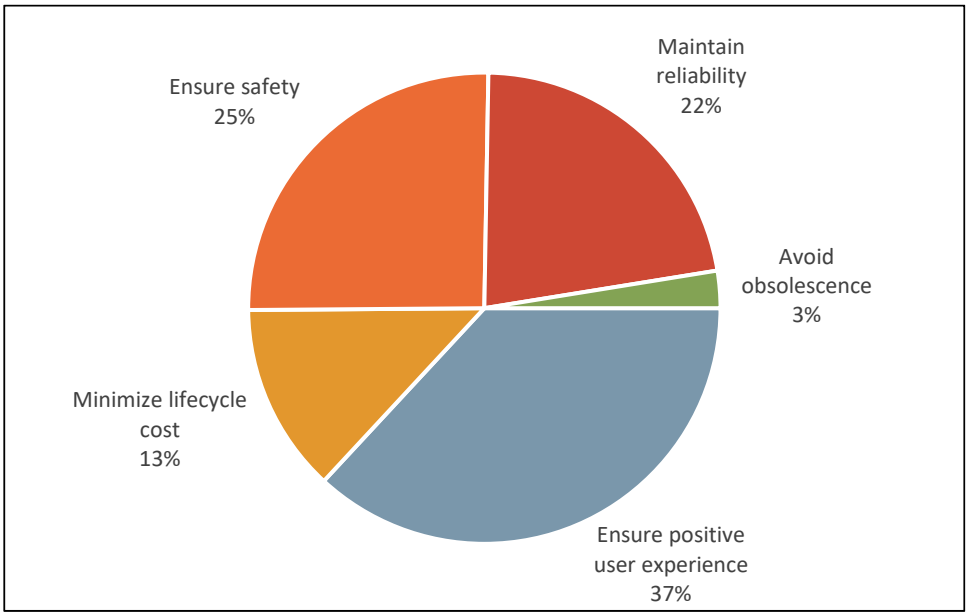


Figure 3-2 provides a breakdown of replacement value by dominant service level objective and condition. As expected, assets in the ensure safety category are mostly in Very Good or Good condition. About half the assets in the minimize lifecycle cost category are in Fair condition or worse. This may represent an opportunity to save money by replacing assets that are expensive to operate. More than half the assets in the ensure positive user experience category are in Fair condition or worse. This is a good indication that, when making replacement decisions, this category has been given a lower priority.

Figure 3-2
Replacement Value by Dominant Service Level Objective and Condition

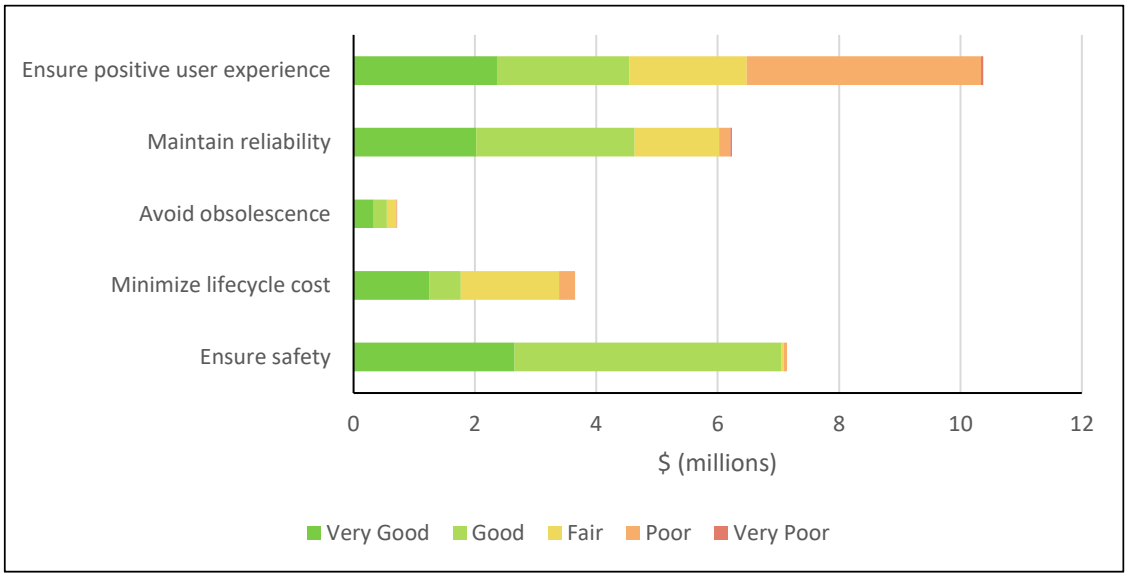
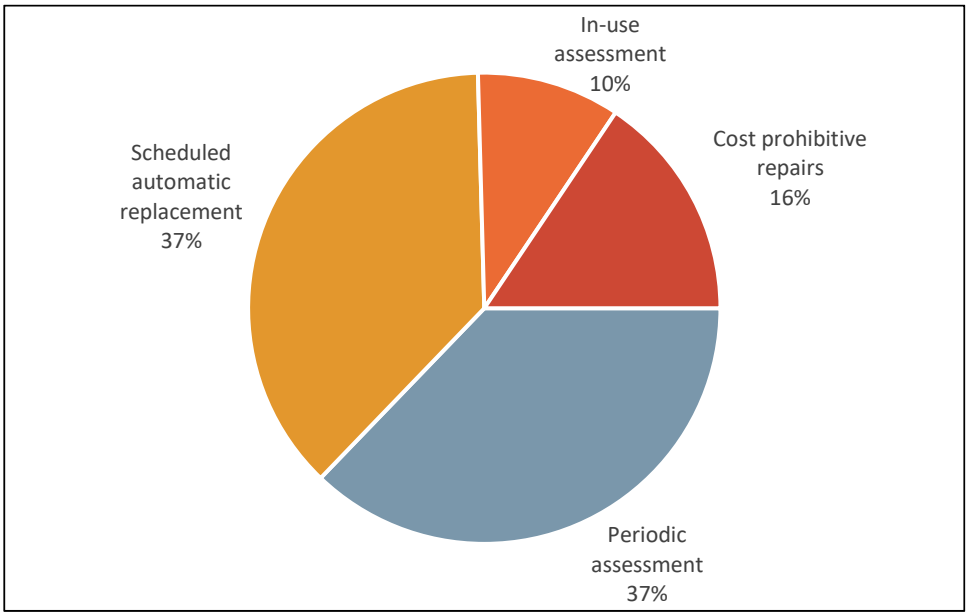


Figure 3-3 shows the breakdown of replacement value by replacement identification method. This shows that all four replacement identification methods cover assets with substantial replacement values. Periodic assessment and scheduled automatic replacement cover almost three-quarters of asset replacement values and may warrant particular focus when setting up supporting policies and procedures. It may be beneficial to establish a formal assessment program that identifies how frequently assets are assessed and who is responsible for the assessments. This will ensure that assessments are done where they are needed to ensure that assets continue to perform well.

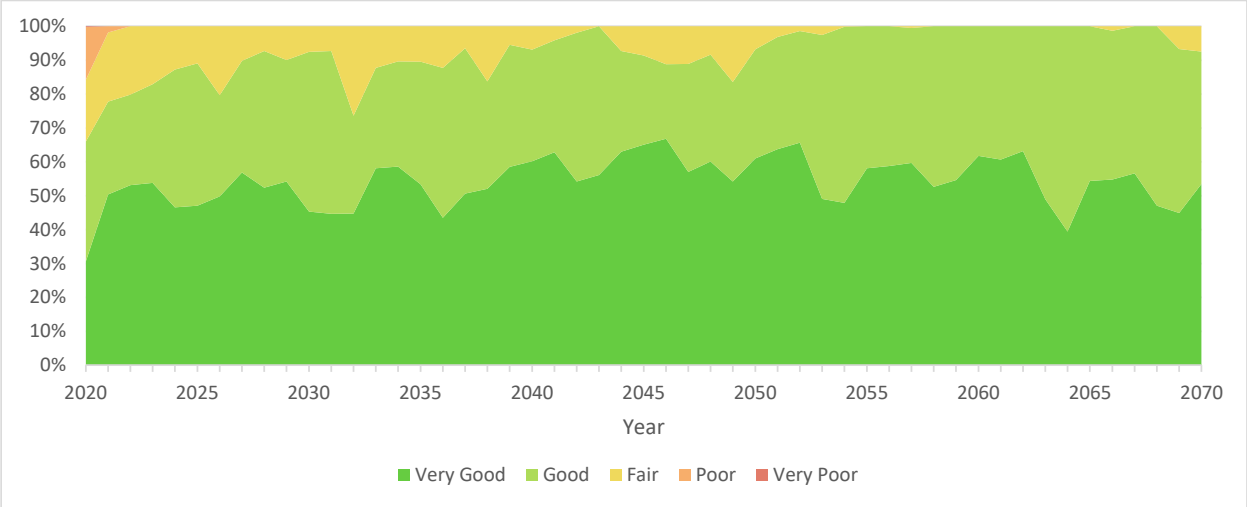
Figure 3-3
Replacement Value by Replacement Identification Method



3.3 Operationalizing the Lifecycle Management Strategy

Figure 3-4 shows the results of projecting the distribution of replacement value by asset condition assuming capital funding is equal to average annual lifecycle costs. The projection assumes that assets in the worst condition are replaced first. In this scenario, all assets in Very Poor condition are replaced in the first year and all assets in Poor condition are replaced by the end of the second year. The waviness of the transition lines between condition ratings in Figure 3-4 is the result of uneven distributions of asset age and value. The fraction of assets in Fair condition steadily rises for the first five years and then begins to oscillate around its long-term average.

Figure 3-4
Projected Distribution of Replacement Value by Condition Rating – Worst First Scenario



In practice, Conservation Halton will not necessarily follow the worst-first methodology. The age-based condition assessment is not a perfect proxy for condition. It would not be efficient to strictly follow a worst-first age-based methodology. Conservation Halton will prioritize asset replacement based partly on age and partly on direct observations of the asset condition. Staff will also consider how frequently assets are used when establishing priorities. A detailed list by asset has been provided to Conservation Halton that identifies the primary service level objective and replacement identification method for each asset. Based on this list, Conservation Halton staff can systematically review all the assets covered by this plan, ensuring that none are overlooked. The outcomes anticipated from this approach can be expected to be similar to the ones shown for the worst-first approach, as illustrated in Figure 3-4.

4. Financial Strategy

4.1 Introduction

This chapter details the financing strategy that would sustainably fund the lifecycle management strategies presented in Chapter 3. The strategy presented is a suggested approach that should be examined and re-evaluated during the annual budgeting process to ensure the sustainability of Conservation Halton's financial position as it relates to its assets.

The financing strategy forecast (including both expenditure and revenue sources) was broken down into two primary budget categories – Watershed Management and Support Services (WMSS) and the Conservation Areas. This categorization was established by Conservation Halton in its Budget Principles. The recommended financing strategy identifies rehabilitation and replacement activities required over the forecast period, as described in preceding sections of this plan.

Based on the asset replacement and rehabilitation costs and assumptions on average useful life, the total average lifecycle costs are estimated to be $1,541,177 annually for assets covered in this plan. Table 4-1 shows how these lifecycle costs are broken down by funding source.

Table 4-1
Average Annual Lifecycle Cost by Funding Source

Funding Source	Average Annual Lifecycle Cost
Watershed Management and Support Services (WMSS)	$331,587
Conservation Areas	$1,209,590

4.2 Annual Expenditure Forecast

This section provides an overview of the expenditures associated with renewal and replacement of assets covered by this plan. The expenditure forecast is based on the current age and condition profile of assets covered by this plan and the lifecycle management strategies identified in Chapter 3.

Figure 4-1 and Figure 4-2 present projected expenditures for WMSS and Conservation Areas respectively. The white bars represent unadjusted expenditures (i.e. expenditures based strictly on the age/condition of the assets). In each figure, the unadjusted expenditures for 2021 far exceed the average annual lifecycle needs (represented by the dotted orange lines). This is due to the presence of assets that have exceeded their expected useful lives and form a replacement backlog. Earlier, in section 1.4, these assets were presented as falling into the Poor, Very Poor and a portion of the Fair category. The blue bars represent expenditures that were adjusted by assuming that the replacement backlog would be eliminated over a 10-year period. This has the effect of reducing the expenditures projected for 2021 but consequently increasing the projected expenditures in other years.

Figure 4-1
Expenditures by Year – WMSS, 2020 dollars

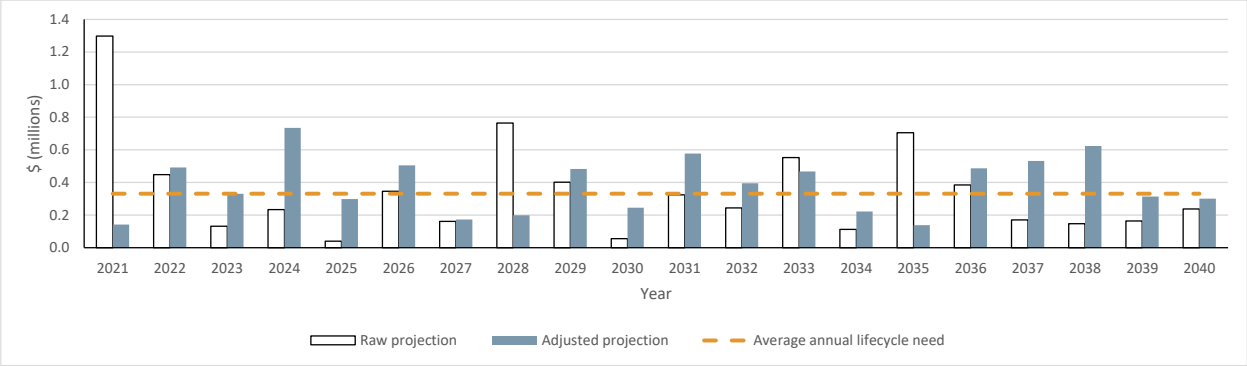
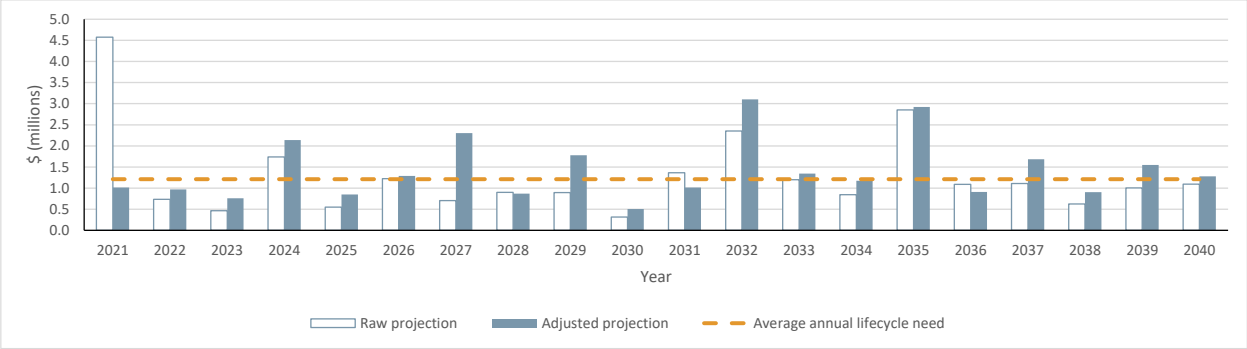


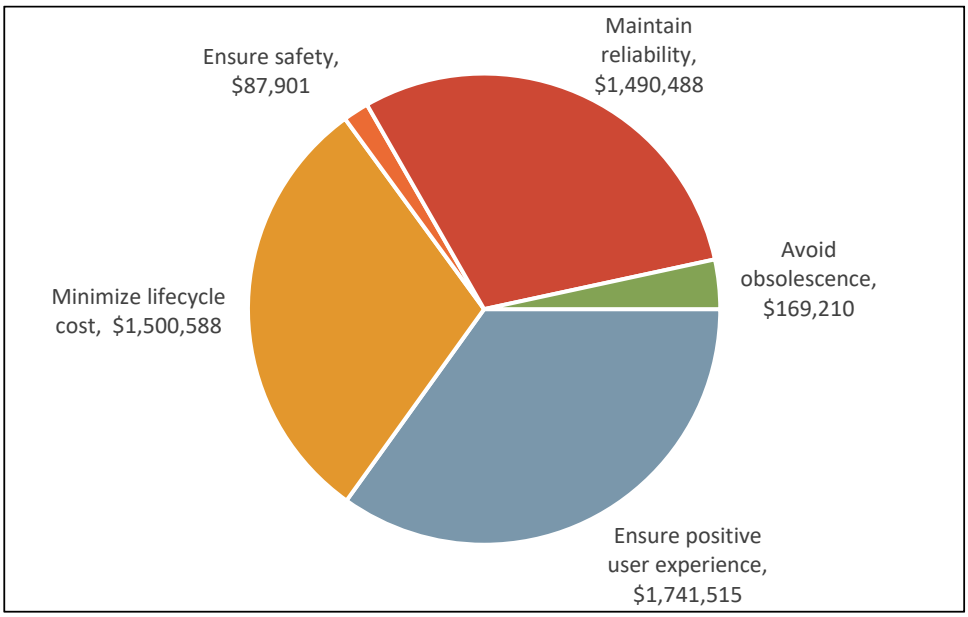
Figure 4-2
Expenditures by Year – Conservation Areas, 2020 dollars



To investigate the plausibility of deferring the replacement of assets currently beyond their expected useful lives (i.e. those that comprise the replacement backlog), Figure

4-3 shows which level of service objectives are supported by assets in the replacement backlog. Assets whose primary objective is ensure safety account for 2% of the replacement backlog and could be addressed with existing funding without delay. There is more flexibility in the other areas, especially ensure positive user experience. Assets supporting this objective account for over a third of the replacement backlog. Based on the foregoing, there is likely at least some ability to stretch the useful lives of less critical assets until funding reaches a sustainable level.

Figure 4-3
Replacement Backlog by Level of Service Objective



Instead of following the overly precise year-by-year breakdowns in the age-based projections, Conservation Halton will use available funding to address the highest priority items first, using the processes described in the asset management strategy. It is important to note that this will not necessarily result in replacing the oldest or worst assets first, but rather prioritizing assets that are most critical to service delivery and ensuring the health and safety of park visitors and staff.

4.3 Funding

The funding analysis presented in this section is based on the assumption that the replacement backlog is cleared over a 10-year timeframe, as described in the preceding section.

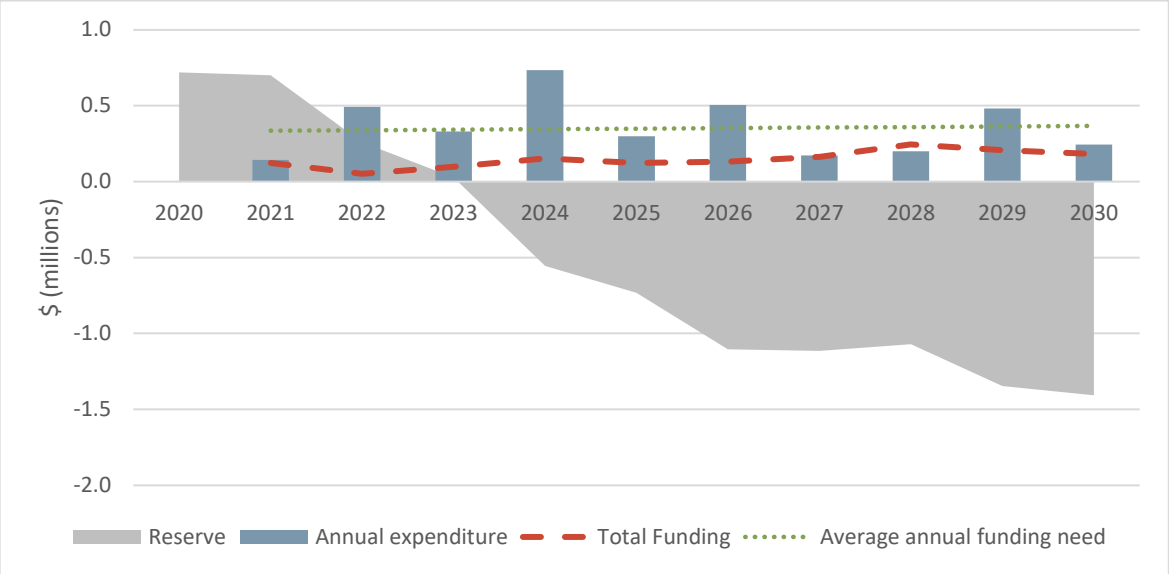
4.3.1 WMSS

Lifecycle renewal and replacement expenditures related to WMSS assets covered in this plan are currently supported by the Motor Pool Reserve and a portion of the Municipal Capital Funding associated with IT Infrastructure. The 2021 budgeted level of Municipal Capital Funding for IT infrastructure is $122,000. There are no contributions to the Motor Pool Reserve budgeted for 2021. This is due to a current balance of approximately $720,000 available in the Motor Pool reserve to support short-term replacement needs. While drawing down the existing reserve balance can support asset replacement needs over the next two to three years, further contributions to the Motor Pool Reserve will be needed to meet the longer-term lifecycle needs of these assets. The 2021 Budget identifies that contributions will resume in 2025, but these contributions may need to resume sooner, and at a higher level, than what is currently budgeted, and this is discussed later in this section. To be at a sustainable level, the combination of Municipal Capital Funding for IT infrastructure and contributions to the Motor Pool reserve should total approximately $331,600 annually. Figure 4-4 illustrates the aggregate impact resulting from the expenditure projections identified in this plan and the funding projections identified in Conservation Halton's draft 2021 Budget.

The analysis assumes that the renewal backlog will be cleared over the 10-year forecast period, as described in section 4.2. The blue bars represent projected expenditures. The dashed red line shows total funding available, comprised of contributions to the Motor Pool reserve and a portion of the Municipal Capital Funding associated with IT Infrastructure. The dotted green line shows estimated average annual funding needs ($334,903 in 2021 rising to $366,278 in 2030 due to inflation[1]). Finally, the grey area shows the aggregated closing balance of relevant reserves (opening balance in 2021 of $720,083). Based on this analysis, total expenditures would exceed funding over the 10-year timeframe, resulting in an aggregate funding shortfall of $1.4 million by 2030. This indicates that the current and budgeted funding levels are insufficient to meet the long-term renewal and replacement needs of WMSS assets covered by this plan.

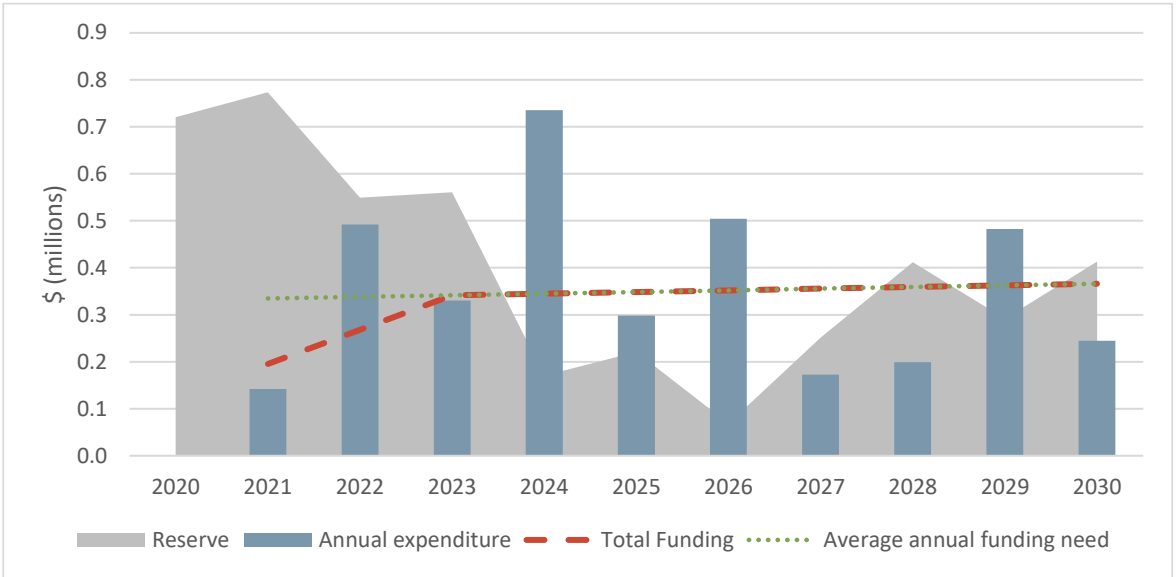
[1] The long-run inflation rate used for machinery and equipment is the 20-year average from the machinery and equipment component of Statistics Canada's industrial product price index: Statistics Canada. Table 18-10-0029-01 Industrial product price index, by major product group, monthly.

Figure 4-4
Projection of Existing Funding, Capital Expenditures, and Reserve Balance



Conservation Halton should seek to close the funding gap by moving towards the sustainable long-term funding level. Figure 4-5 illustrates the aggregate impact resulting from moving to the sustainable long-term funding level over three years.

Figure 4-5
Projection of Increased Funding, Capital Expenditures, and Reserve Balance

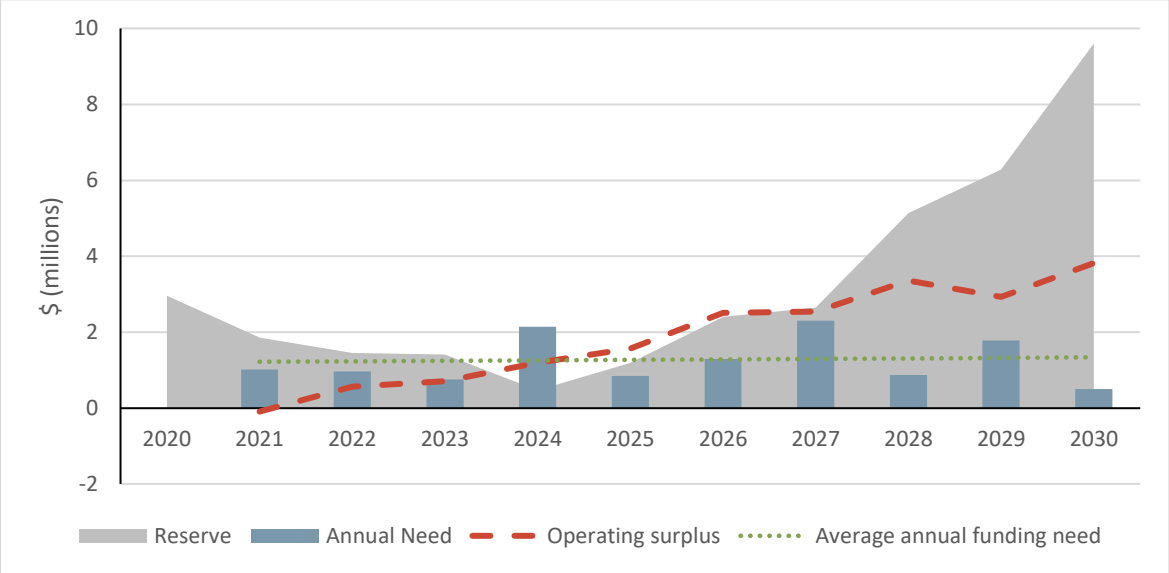


If it is not possible to increase funding to the long-term average need by 2023, some capital expenditures will likely need to be postponed. Determining how best to do this will depend on how long funding will remain below the long-term need. A delay of a year or two could likely be managed by delaying less critical investments. A more prolonged delay would require careful consideration of priorities, including potentially disposing of assets.

4.3.2 Conservation Areas

Figure 4-6 is constructed in the same way as Figure 4-4 with the same interpretation, just for Conservation Area assets instead of WMSS assets. All lifecycle replacement and renewal needs of Conservation Areas assets are supported by a capital reserve that is funded from the annual operating surplus. The dashed red line represents the projected annual surpluses, net of funding required for facilities as identified in Phase 2 of the asset management plan and Conservation Halton's 10-year budget forecast. The Conservation Areas capital reserve starts with a balance of $2.96 million in 2021. Figure 4-6 shows that while there is a funding gap in the first three years, the balance of the capital reserve is sufficient to offset this short-term funding gap. By 2025, the projected funding exceeds the lifecycle needs of existing assets.

Figure 4-6
Projection of Funding, Capital Expenditures, and Reserve Balance



4.4 Future Improvements

This plan does not incorporate the costs associated with the lifecycle activities and maintenance of growth-related capital. These costs should be explored and implemented into the financing strategy in the future as part of master planning. Examining these growth-related capital needs and their impacts on the financing strategy will provide for a comprehensive assessment of the sustainability of the overall asset management system.

Conservation Halton

June 2020

REPORT TO: Conservation Halton Board of Directors

REPORT NO: # CHBD 05 20 06

FROM: Barbara Veale, Director, Planning and Watershed Management

DATE: June 25, 2020

SUBJECT: **60-month permissions for five (5) permits related to the widening and reconstruction of Dundas Street, Regional Municipality of Halton**
CH File No.: A/17/B/90, A/17/B/91, A/17/B/92, A/17/B/50, A/17/O/51 & A/17/O/52)

Recommendation

THAT the Conservation Halton Board of Directors **approve 60 month permissions for five (5) permits for the proposed widening and reconstruction of Dundas Street (Appleby Line to Bronte Road) and associated works, including widening of the Tansley Bridge crossing of Bronte Creek, a new bridge crossing of Fourteen Mile Creek, culvert replacements and grading in the City of Burlington and Town of Oakville, Regional Municipality of Halton (CH File No.: A/17/B/90, A/17/B/91, A/17/B/92, A/17/B/50, A/17/O/51 & A/17/O/52).**

Executive Summary

The Region of Halton has submitted five (5) complete Conservation Halton (CH) permit applications for public infrastructure works associated with the widening and reconstruction of Dundas Street (Appleby Line to Bronte Road, Project Numbers PR-2671B & PR-2672B). The proposed works include widening of the Tansley Bridge crossing of Bronte Creek, a new bridge crossing of Fourteen Mile Creek, culvert replacements and associated grading within CH's regulated area.

The proposed development meets CH's *Policies and Guidelines for the Administration of Ontario Regulation 162/06 and Land Use Planning Policy Document* (modified date February 25, 2016). Pursuant to *Ontario Regulation 162/06*. Staff can issue permits with a term up to 24 months. The Regulation allows for the CH Board of Directors to approve permits for up to 60 months for projects that, in their opinion, cannot reasonably be completed within 24 months from the day the permission is granted. The proposed development is significant public infrastructure that is scheduled to take longer than 24 months to complete. Staff recommends that the CH Board of Directors approve the issuance of five (5) permits related to this project for a term of 60 months.

Report

Background / Proposal

On March 25, 2020, Conservation Halton (CH) staff deemed five (5) Region of Halton permit applications complete. The applications are for public infrastructure works associated with the proposed widening and reconstruction of Dundas Street (Appleby Line to Bronte Road) and associated works including widening of the Tansley Bridge crossing of Bronte Creek, a new bridge crossing of Fourteen Mile Creek, culvert replacements and grading within CH's regulated area. Final drawings and technical reports were submitted in early 2020; however, CH staff has been involved in the review of technical submissions that progressed from 30 to 100 percent detailed design since 2017. This design process followed Schedule "C" Class Environmental Assessment Study, Dundas Street (Regional Road 5) Improvements Class Environmental Assessment Study Brant Street (Regional Road 18) to Bronte Road (Regional Road 25), completed by MMM Group in June 2015.

The project area (Figure 1) is regulated by CH, pursuant to *Ontario Regulation 162/06,* as it is traversed by tributaries of Bronte Creek and Fourteen Mile Creek and contains the flooding and erosion hazards associated with these watercourses. Components of the project occurring within CH regulated area are organized under the following Permits based on the area of proposed development and construction schedule:

- CH File Number A/17/B/90-91 – Proposed widening of the Tansley Bridge crossing of Bronte Creek, including the construction of two new piers in the floodplain and replacement of a culvert (C18), to facilitate the widening of Dundas Street
- CH File Number A/17/B/92 – Proposed replacement of a culvert (C20) which conveys a tributary of Fourteen Mile Creek to facilitate the widening of Dundas Street
- CH File Number A/17/O/50 – Proposed replacement of a culvert (C21A), which conveys a tributary of Fourteen Mile Creek to facilitate the widening of Dundas Street
- CH File Number A/17/O/51 – Proposed construction of a new bridge crossing of a tributary of Fourteen Mile Creek (C22) to facilitate the widening of Dundas Street
- CH File Number A/17/O/52 – proposed removal of a culvert (C22B) and extension of a culvert (C23), which conveys a tributary of Fourteen Mile Creek to facilitate the widening of Dundas Street

Construction is scheduled from 2020 to 2024. The initial contract (2020-2023) focuses on Appleby Line to Tremaine Road and includes replacement of the Tansley Bridge crossing of Bronte Creek and replacement of Culverts 18 and 20. The following contract (2021-2024) focuses on Tremaine Road to Bronte Road and includes replacement of Culvert 21, a new bridge crossing of Fourteen Mile Creek (C22), the removal of Culvert 22b and upgrades to Culvert 23.

Policy Review

The proposed works meet Policy 3.51 (Public Infrastructure – Utilities, Trails and Transportation) of CH's *Policies and Guidelines for the Administration of Ontario Regulation 162/06 and Land Use Planning Policy Document* (modified date February 25, 2016). *Ontario Regulation 162/06* enables the CH Board of Directors to grant permission for projects that cannot reasonably be completed within 24 months, up to a maximum of 60 months.

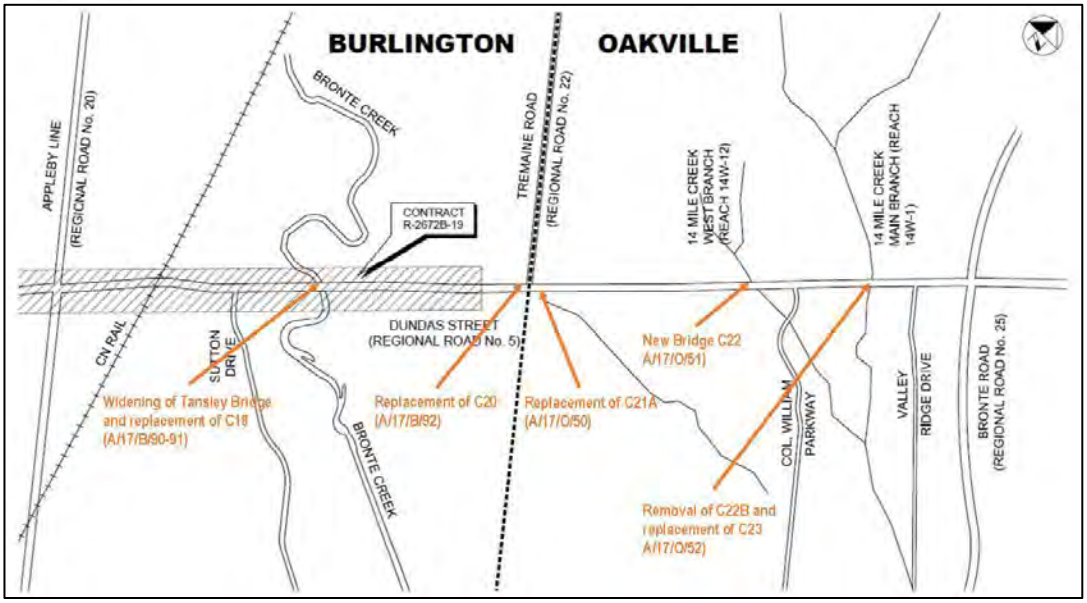


Figure 1 – Proposed Widening and Reconstruction of Dundas Street with CH Permit File Numbers

Impact on Strategic Goals

This report supports the Metamorphosis strategic theme of Taking care of our growing communities. The theme is supported by the objective to remain dedicated to ecosystem-based watershed planning that contributes to the development of sustainable rural, urban and suburban communities.

Financial Impact

There is no financial impact as a result of this proposal.

Signed & respectfully submitted:

Barbara J. Veale
Director, Planning and Watershed Management

Approved for circulation:

Hassaan Basit
CAO/Secretary-Treasurer

FOR QUESTIONS ON CONTENT: Matt Howatt, Team Lead, Regional Infrastructure Team
(905) 336-1158 ext. 2311, mhowatt@hrca.on.ca

Conservation Halton

June 2020

REPORT TO: Conservation Halton Board of Directors

REPORT NO: # CHBD 05 20 07

FROM: Barbara Veale, Director, Planning and Watershed Management

DATE: June 25, 2020

SUBJECT: **60-month permissions for five (5) permits related to Tremaine Road, Regional Municipality of Halton**
CH File No.: A/15/M/38, A/19/M/40, A/19/M/41, A/19/M/42 & A/19/M/43

Recommendation

THAT the Conservation Halton Board of Directors **approve 60 month permissions for five (5) permits related to Tremaine Road (No. 3 Side Road to Highway 401) and associated works including culverts, structures, a stormwater management facility, realignment of Sixteen Mile Creek Tributaries NW-2-G1 and NW-2-F and grading in the Town of Milton, Regional Municipality of Halton (CH File No.: A/15/M/38, A/19/M/40, A/19/M/41, A/19/M/42 & A/19/M/43)**.

Executive Summary

The Region of Halton has submitted five (5) complete Conservation Halton (CH) permit applications for public infrastructure works associated with the construction of new Tremaine Road (No. 3 Side Road to Highway 401, Project Number PR-2661C). The proposed works include culverts, fill embankments, grading, watermain servicing, and a stormwater management facility necessitating proposed floodplain alteration and realignment of Sixteen Mile Creek Tributaries NW-2-G1 and NW-2-F.

The proposed development meets CH's *Policies and Guidelines for the Administration of Ontario Regulation 162/06 and Land Use Planning Policy Document* (modified date February 25, 2016). Pursuant to *Ontario Regulation 162/06*. Staff can issue permits with a term up to 24 months. The Regulation allows for the CH Board of Directors to approve permits for up to 60 months for projects that, in their opinion, cannot reasonably be completed within 24 months from the day the permission is granted. As the proposed development is significant public infrastructure that is scheduled to take longer than 24 months to complete. staff recommends that the CH Board of Directors approve the issuance of five (5) permits related to this project for a term of 60 months.

Report

Background / Proposal

On January 17, 2020, Conservation Halton (CH) staff deemed five (5) Region of Halton permit applications complete. The applications are for public infrastructure works associated with the construction of new Tremaine Road (No. 3 Side Road to Highway 401), which includes culverts, fill embankments, grading, watermain servicing, and a stormwater management facility necessitating proposed floodplain alteration and realignment of Sixteen Mile Creek Tributaries NW-2-G1 and NW-2-

F. Final drawings and technical reports were submitted in early 2020; however, CH staff has been involved in the review of technical submissions that progressed from 30 to 100 percent detailed design since 2015. This design process followed the Class Environment Study Report prepared by McCormick Rankin in November 2007 (as amended in May 2008).

The project area (Figure 1) is regulated by CH, pursuant to *Ontario Regulation 162/06*, as it is traversed by tributaries of Sixteen Mile Creek and contains the flooding and erosion hazards associated with these watercourses. Components of the project occurring within CH regulated area are organized under the following Permits based on the area of proposed development and construction schedule:

- CH File Number A/15/M/38 – Proposed realignment of Tributary NW-2-G1 and installation of a 600mm watermain and fill embankments within the floodplain associated with a tributary Sixteen Mile Creek to facilitate the construction of Tremaine Road/Highway 401 Interchange
- CH File Number A/19/M/40 – Proposed construction of Tremaine Road Structures C16A & C16B and associated fill embankments within the floodplain associated with a tributary of Sixteen Mile Creek
- CH File Number A/19/M/41 – Proposed realignment of Tributary NW-2-F, construction of new Tremaine Road/Highway 401 Interchange Culvert 17 and associated fill embankments within the floodplain associated with a tributary of Sixteen Mile Creek
- CH File Number A/19/M/42 – Proposed construction of No. 3 Side Road crossing of realigned Sixteen Mile Creek Tributary NW-2-G1
- CH File Number A/19/M/43 – Proposed construction of stormwater management pond S43 outfall within the floodplain and access road within 15 metres of the floodplain associated with realigned Sixteen Mile Creek Tributary NW-2-G1

Construction is scheduled from 2020 to 2023. The initial contract (2020-2021) focuses on the realignment of the NW-2-G1 and NW-2-F channels and the construction of the stormwater management facility, culvert crossings and fill embankments for the realigned Tremaine Road and Highway 401 interchange ramps. The following contract (2021-2023) will include construction of realigned Tremaine Road, 600mm watermain, interchange fill embankments, No. 3 Side Road reconstruction including services and completion of the realigned channel NW-2-G1.

Policy Review

The proposed works meet Policy 3.51 (Public Infrastructure – Utilities, Trails and Transportation) of CH's *Policies and Guidelines for the Administration of Ontario Regulation 162/06 and Land Use Planning Policy Document* (modified date February 25, 2016). *Ontario Regulation 162/06* enables the CH Board of Directors to grant permission for projects that cannot reasonably be completed within 24 months, up to a maximum of 60 months.

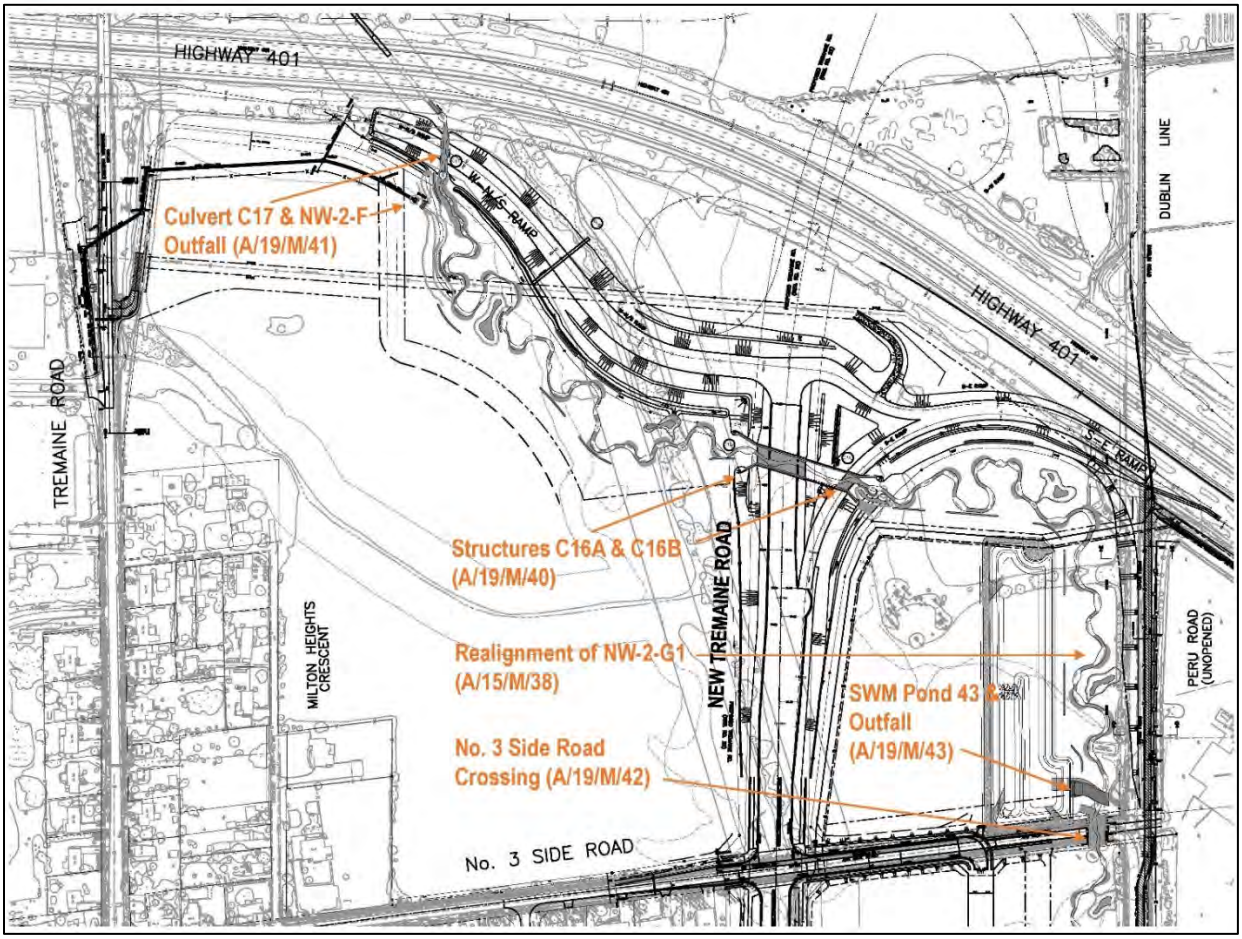


Figure 1 – Proposed Construction of Tremaine Road with CH Permit File Numbers

Impact on Strategic Goals

This report supports the Metamorphosis strategic theme of Taking care of our growing communities. The theme is supported by the objective to remain dedicated to ecosystem-based watershed planning that contributes to the development of sustainable rural, urban and suburban communities.

Financial Impact

There is no financial impact as a result of this proposal.

Signed & respectfully submitted:

Barbara J. Veale
Director, Planning and Watershed Management

Approved for circulation:

Hassaan Basit
CAO/Secretary-Treasurer

FOR QUESTIONS ON CONTENT: Matt Howatt, Team Lead, Regional Infrastructure Team
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Conservation Halton

June 2020

REPORT TO: Conservation Halton Board of Directors

REPORT NO: # CHBD 05 20 08

FROM: Barbara Veale, Director, Planning and Watershed Management

DATE: June 25, 2020

SUBJECT: **Updated 2020 Floodplain Mapping for Grindstone Creek Watershed (City of Hamilton and City of Burlington) and Morrison Wedgewood Diversion Channel (Town of Oakville)**
CH File No.: ADM 345, ADM 346

Recommendation

THAT the Conservation Halton Board of Directors **approve the updated 2020 floodplain mapping for Grindstone Creek Watershed (City of Hamilton and City of Burlington) and Morrison-Wedgewood Diversion Channel Watershed (Town of Oakville)**

AND

THAT a copy of Report No. CHBD 05 20 08 be **sent to the City of Burlington, City of Hamilton, Town of Oakville and the Halton Region for their information**.

Executive Summary

In 2018, Conservation Halton (CH) embarked on a new Floodplain Mapping Program. New technologies and tools offer opportunities to provide more accurate depiction of the flood hazard. This information is important to support CH's regulatory and planning programs, infrastructure management decisions, flood forecasting and warning, emergency planning and response, prioritization of flood mitigation efforts and infrastructure design.

CH has completed two floodplain mapping studies which define the limits of the flood hazard in the Grindstone Creek watershed and the Morrison-Wedgewood Diversion Channel. The modelling and analysis done for these studies comply with Federal and Provincial Guidelines for floodplain mapping.

An extensive public consultation process was undertaken to ensure that local, provincial and federal agencies, other stakeholders, and the general public were made aware of the studies and had opportunities to participate in PICs and provide input.

CH staff recommends that the CH Board of Directors approve the updated 2020 floodplain mapping for Grindstone Creek watershed and the Morrison Wedgewood Diversion Channel.

Report

Background

Conservation Halton (CH) is responsible for administering *Ontario Regulation 162/06 (Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation).* Ontario Regulation 162/06 restricts development in hazard areas.

Pursuant to *Ontario Regulation 162/06,* CH regulates:

- All development in or adjacent to river or stream valleys, wetlands and surrounding lands where development could interfere with the hydrologic function of the wetland, Lake Ontario shorelines, and hazardous lands such as karst and any prescribed allowances
- Alterations to a river, creek, stream or watercourse; and
- Interference with wetlands.

Permission is required from CH for undertaking any works within regulated areas. CH's Board-approved *Policies and Guidelines for the Administration of Ontario Regulation 162/06 and Land Use Planning Policy Document (2016)* outline the policies and technical requirements which must be met before permission may be granted.

The areas regulated by CH are generally shown on Approximate Regulation Mapping (ARL) which is available to municipalities as digital map layers and to the public through the CH website. Not all regulated areas are mapped, but natural hazards, whether mapped or not, are regulated. CH's ARL mapping is an important screening tool used by CA staff, municipal staff, consultants, real estate agents, and others to determine if a site may contain natural hazards and be regulated by CH.

To ensure that the most current and comprehensive hazard mapping is provided in the ARL maps, Conservation Halton Board of Directors approved a new Mapping Maintenance Protocol on November 21, 2019 for updating hazard mapping for sites where technical studies supporting a planning or permit application refine the hazard limits to the satisfaction of CH (Res. No. CHBD 11 08).

Major changes made at the watershed, subwatershed, watercourse or shoreline reach, or multi—property scale, not associated with a planning or permit application, require CH Board approval prior to incorporating them into the public-facing ARL mapping layer. For these types of changes, CH follows Conservation Ontario's (CO) *Guidelines for Updating Section 28 Mapping: Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulations*. This document, updated and approved by Conservation Ontario Council in 2018, indicates that hazard mapping should be done in accordance with provincial standards and follow the public consultation and notification processes contained within it.

Floodplain mapping for many creeks within CH's jurisdiction were undertaken in the 1980s and 1990s. Since that time, technology has advanced significantly. For example, advanced mapping tools, such as LiDAR (Light Detection and Ranging), allow capture of highly detailed topographic data, which better describes the natural land features. Increased computing power and more sophisticated software can apply detailed LiDAR data and model complex natural processes to better predict the path and nature of a flood. This results in a more accurate flood hazard limit.

In 2018, CH embarked on a new floodplain mapping program to systematically update flood lines for watersheds and creek reaches across its jurisdiction. Once these changes have been approved by the Board, they will be added to the internal digital mapping. Major changes, along with any minor changes completed according to the Mapping Maintenance Protocol, will be reflected in the annual update and consolidation of the publicly available CH ARL mapping layer.

In addition to supporting CH's regulatory and planning programs, updated models and mapping may also be used to support infrastructure management decisions, flood forecasting and warning, emergency planning and response, prioritization of flood mitigation efforts and infrastructure design.

Conservation Halton received National Disaster Mitigation Program (NDMP) funding for three mapping projects, including Grindstone Creek, Morrison Wedgewood Creek, and Urban Milton. Flood line mapping has been completed for the Grindstone Creek watershed and the Morrison-Wedgewood Diversion Channel, while refinements to the Urban Milton models and mapping are on-going.

Grindstone Creek Floodplain Mapping

The Grindstone Creek watershed drains a diverse landscape which encompasses large wetland areas, the Niagara Escarpment, rural lands and several small settlement areas (e.g., Waterdown, Aldershot, Millgrove, Flamborough Centre, Clappison's Corners). The catchment area of appropriate 90 km^2 is shown in Figure 1.

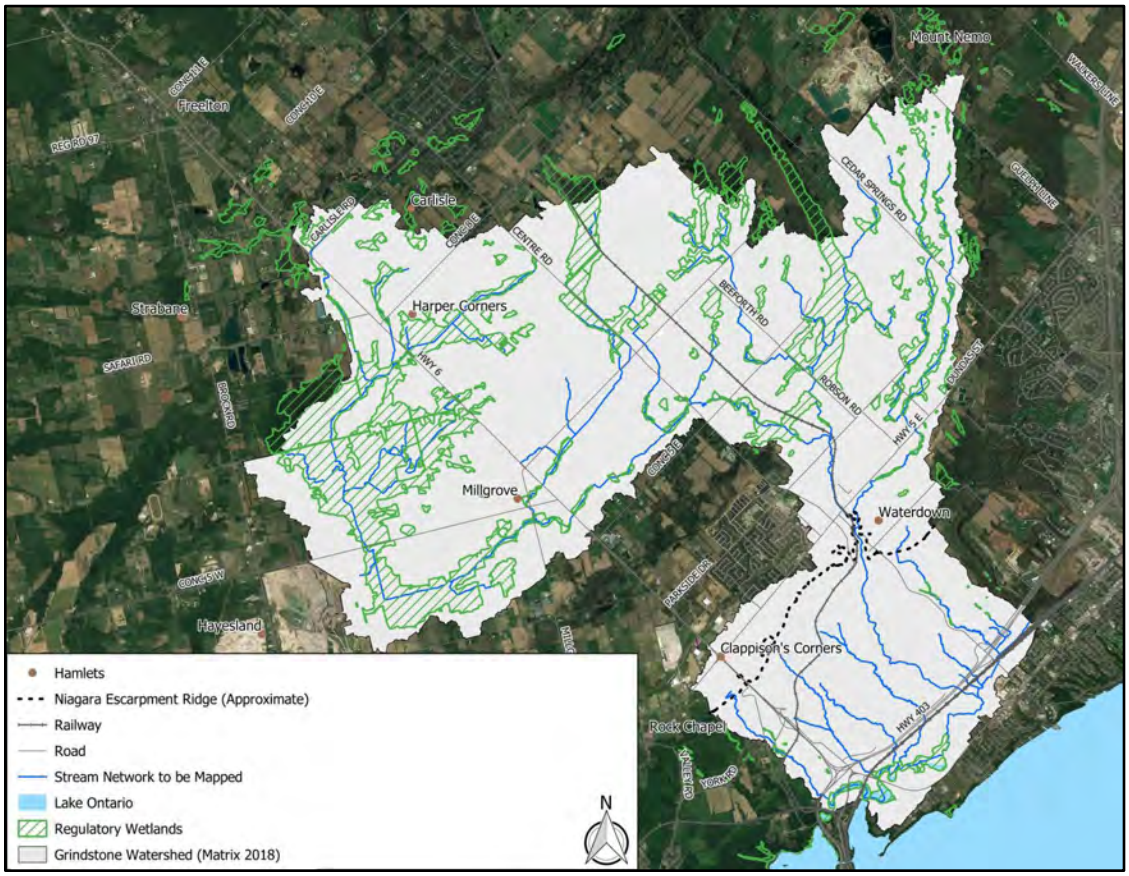

Figure 1: Grindstone Creek Watershed

The last flood risk study for the watershed was completed in 1983. In 2018, Conservation Halton retained Matrix Solutions Inc. to update models and mapping on a watershed basis. The focus of the study was to assess how Grindstone Creek and its tributaries would respond to storms like Hurricane Hazel and the 1:100-year storm, as the larger of these storms defines the limit of the flood hazard. As part of the analysis, the study explored:

- Peak flows resulting from specific rainfall events
- Flow pathways, water levels and velocities expected from these flows
- Effects of climate change on flood risk
- Extent of the regulatory flood hazard (mapping the floodplain)

To support study development and CH's technical peer review, CH coordinated and chaired a Technical Advisory Committee that included representatives from the City of Hamilton, City of Burlington, Halton Region and Hamilton Conservation Authority.

An important element of the Grindstone Study focused on understanding whether flood flows exceed the capacity of the valley system and spill into another watershed or subwatershed. Spills and spill areas are considered a flood hazard by the Ministry of Natural Resources and Forestry. For major spills the peak flow being transferred between systems, and the extent of flooding associated with the spill are important to understand. The study confirmed that during the Regional Storm event, Grindstone Creek would receive significant spill flows (>140 m^3/s) from Bronte Creek. While this is a natural spill (resulting from valley topography), the Highway 6 crossing, immediately north of Carlisle Road, impacts how and where spills may occur. The study also identified numerous locations where flow spills out of the Grindstone Creek and is diverted into adjacent watersheds, including: Spencer Creek (which receives 122 m^3/s of spill flows split between two locations), Boers Creek (receiving 11.4 m^3/s), Hamilton Harbour and Falcon Creek (receiving > 5.6 m^3/s), and to Bronte Creek (receiving 1.5 m^3/s).

Figure 2 shows the location of the various spills into and out of Grindstone Creek and an overview of the proposed regulated floodplain as defined through Matrix Solutions Inc.'s *Flood Hazard Mapping Report – Grindstone Creek Watershed,* dated March 31, 2020.

While similar to previous mapping, the updated floodplain limits show some significant differences. A high-level comparison is provided on Figures 3 and 4. CH's current regulated floodplain limit is shown by the thick magenta line, while the light purple fill shows the updated regulated floodplain limits. Factors causing these changes include:

- Modelling the impact of the Bronte Creek spill results in a significant expansion of the floodplain east of Highway 6 between Carlisle Road and Concession 8 East, impacting approximately 60 structures, including rural residences, greenhouses, barns, sheds, and other buildings.
- Extending modelling to a 50 ha catchment limit results in mapping new floodplain areas.
- Areas previously identified as spills have now been mapped, including an intra-basin spill between two parallel channels adjacent to Centre Road between 6th and 7th Concession East, and the expanded floodplain upstream (and outside) of Millgrove.
- Within Burlington's urban area, spill to Falcon Creek was identified, as was a spill south of Masonry Court. Note: The spill south of Masonry Court should be re-assessed when updated LiDAR data becomes available. The 2018 LiDAR data captured temporary grades associated with on-going

development and may not reflect ultimate grades. Additionally, there is potential for relief flow under the Waterdown Road railway underpass, which may further reduce spill potential.

- Detailed topographic data has impacted our understanding of drainage and watershed boundaries.

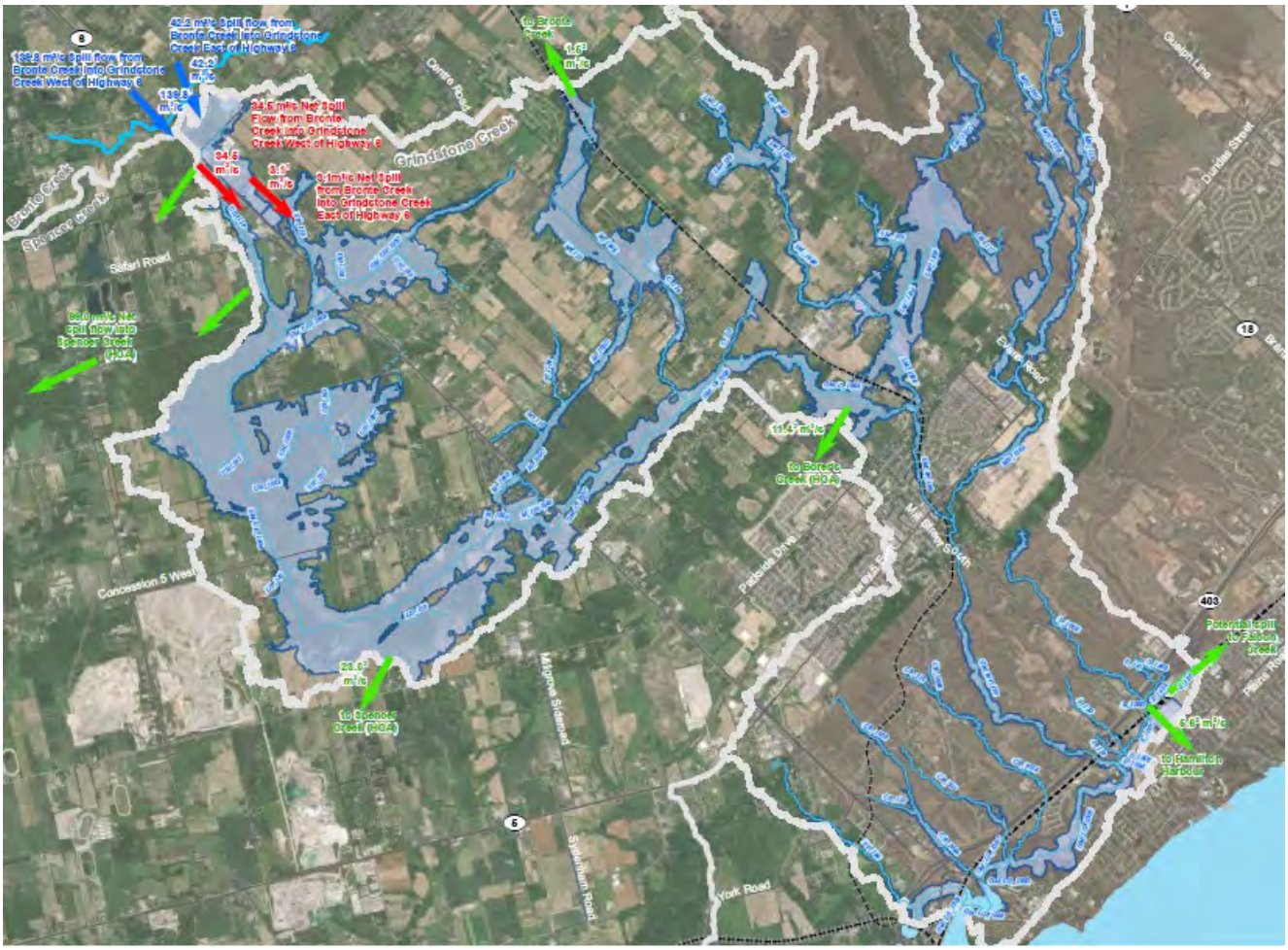

Figure 2: Spill Locations (Credit: Matrix Solutions, 2020)

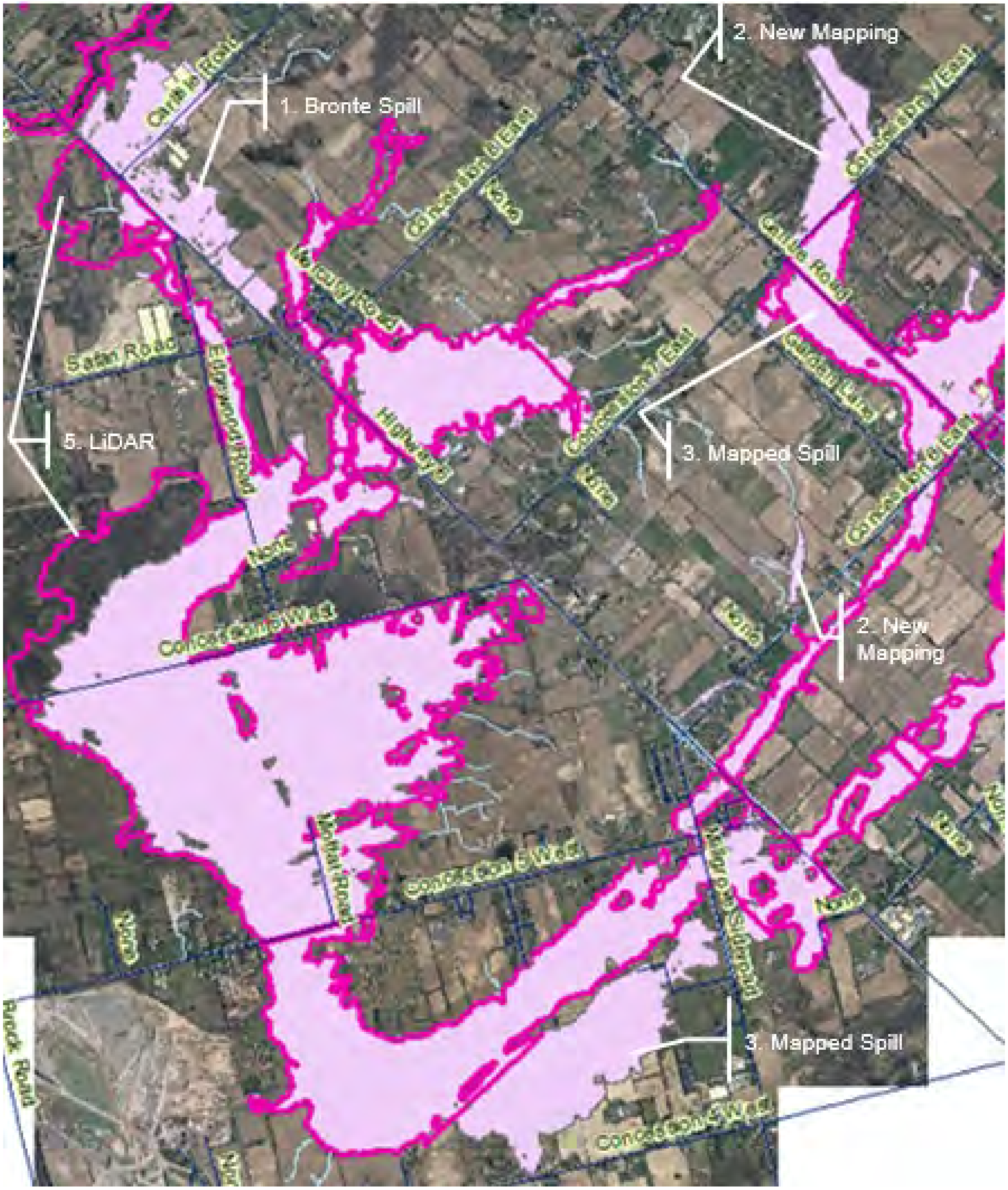

Figure 3: Key Differences Between Current and Proposed Floodplain Limits (Including rationale)

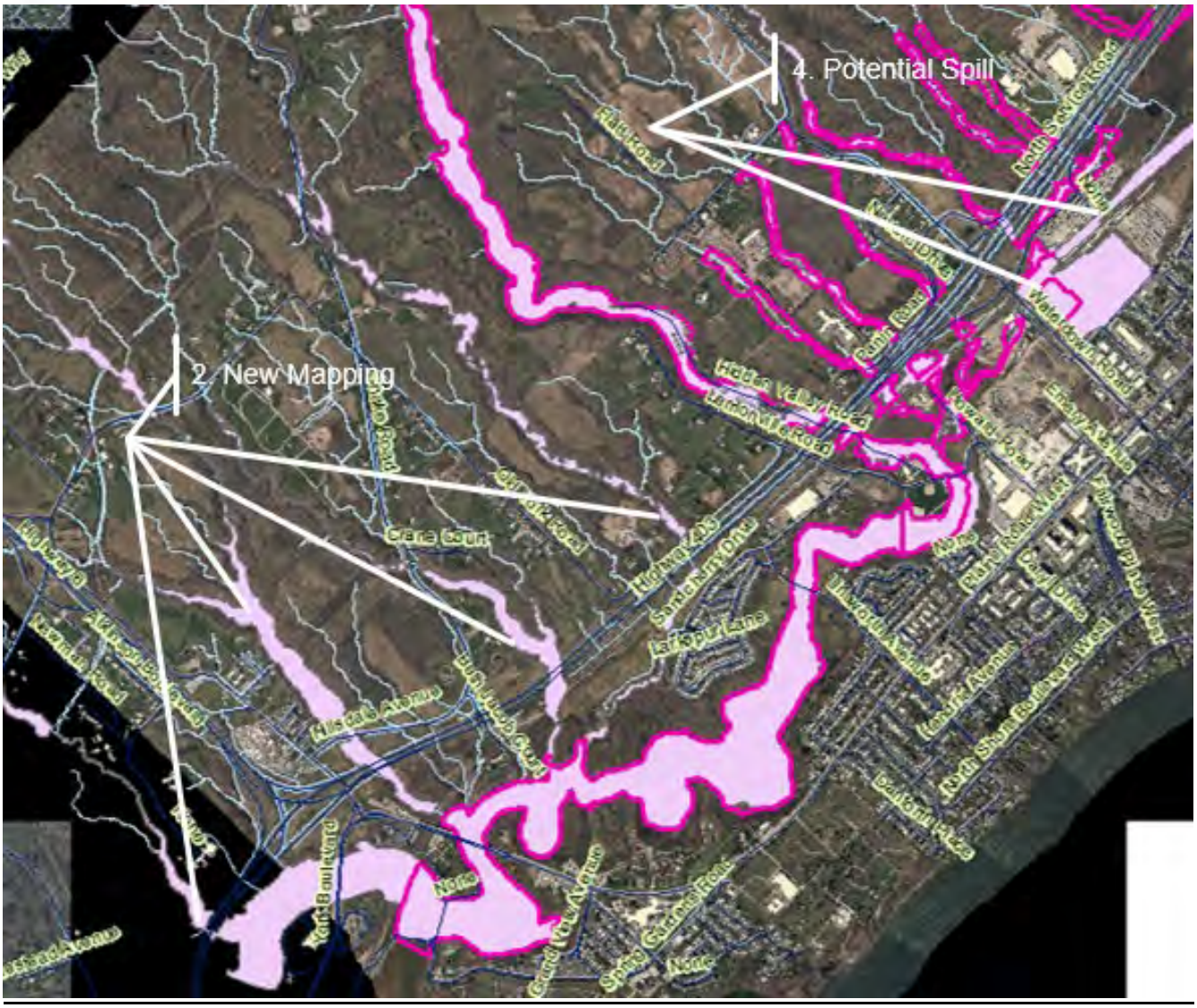

Figure 4 – Key Differences Between Current and Proposed Floodplain Limits (Including rationale)

Morrison-Wedgewood Creek Floodplain Mapping

The Morrison-Wedgewood Diversion Channel (Diversion Channel) located south of Dundas Street in the Town of Oakville was originally built in the late 1960s to reduce the flood risk to downstream residential neighborhoods. The 20 km^2 drainage area associated with the Diversion Channel includes six subwatersheds from the contributing creeks. The Diversion Channel intercepts natural flow from these watersheds into a single channel, diverting flow to Sixteen Mile Creek (Figure 2).

The Diversion Channel is concrete-lined, with a trapezoidal shape from East Wedgewood to downstream of Sixth Line with increasing size travelling downstream. From downstream of Sixth Line to Sixteen Mile Creek, the shape becomes rectangular. The conveyance capacity of the Diversion Channel is affected by the shape and slope of the channel and the degree of berming adjacent to it.

While the original 1964 Diversion Channel design was intended to convey Regulatory flows, recent studies have shown that the diversion channel does not have the capacity to convey the Hurricane Hazel Regional Storm.

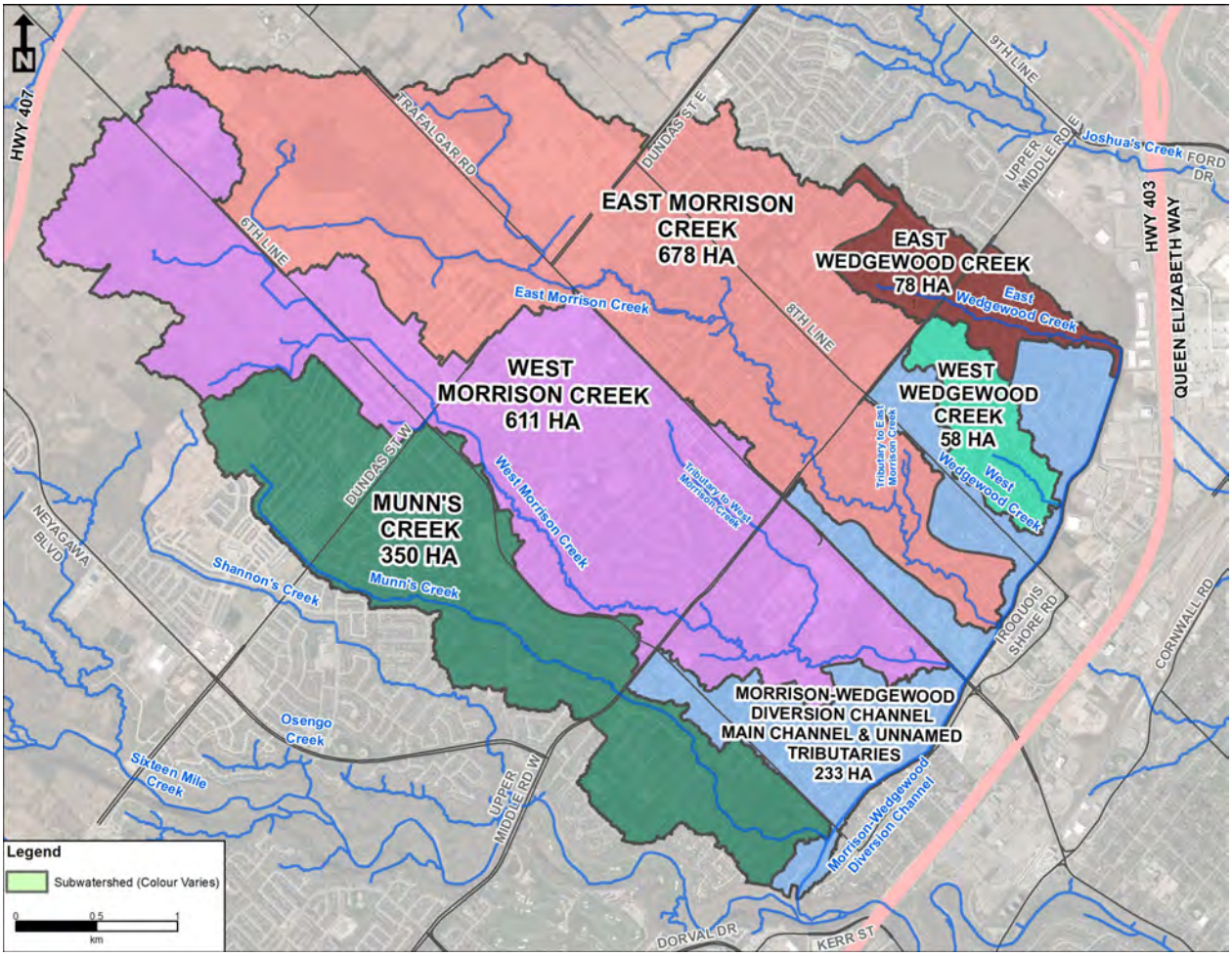

Figure 2: Subwatersheds Draining into the Morrison-Wedgewood Diversion Channel (Credit: Morrison Hershfield)

In 2019 Conservation Halton retained Morrison Hershfield to update Flood Risk Mapping for the Morrison Wedgewood Diversion Channel and its tributaries. To support study development and CH's technical peer review, CH coordinated and chaired a Technical Advisory Committee that included representatives from the Town of Oakville and Halton Region.

The Study evaluated and mapped flood risk for the Diversion Channel, contributing watercourses (Munn's Creek, East and West Morrison Creek, and East and West Wedgewood Creeks) between Dundas Street and the Diversion Channel, and spill pathways between the Diversion Channel and QEW/Highway 403. No significant changes to flood risk were identified along the contributing tributaries, however, significant flood risk was identified along the Diversion Channel. Modelling indicated potential for spills from the Diversion Channel to extend between Grosvenor Street (upstream of West Wedgewood Creek) and Kent Avenue, however, more detailed dynamic spills modelling indicated three major spills, as shown in Figure 4. The most westerly spill is located between Kent Avenue and Robarts Road, with ponding along the QEW/403 extending westerly to 6th Line. This spill

directly impacts approximately 85 residential lots, with additional properties subject to potential flooded access routes. The central spill is located upstream of Trafalgar Road and the easterly spill is located upstream of 8th Line. These spills primarily impact commercial lands and represent newly-defined flood hazard areas. All three spills are predicted to result in significant ponding (>2m) that would be expected to ultimately overtop the QEW/Highway 403 before spilling to the south.

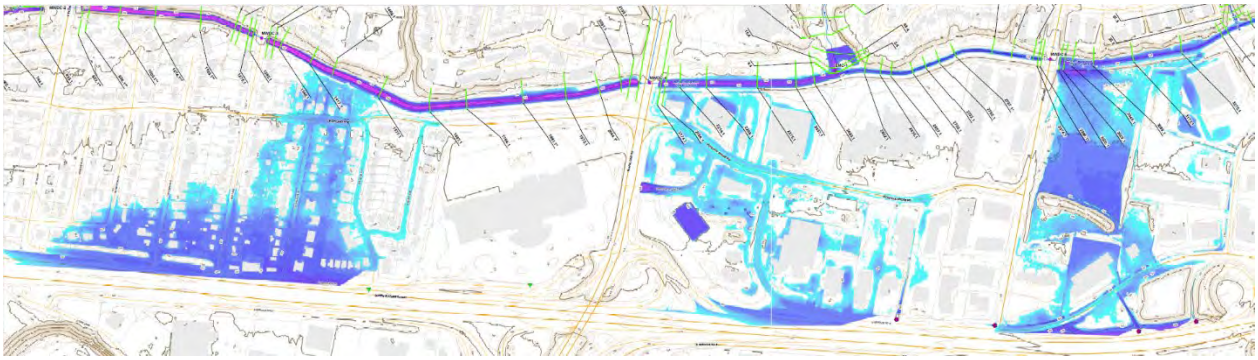

Figure 4 – Spill Pathways from the Morrison-Wedgewood Diversion Channel (Credit: Morrison Hershfield)

Study findings are summarized within *Flood Risk Mapping and Spill Quantification – Morrison-Wedgewood Diversion Channel Volume I – Hydrology Modelling Report, and Volume II – Hydraulic Modelling Report,* prepared by Morrison Hershfield Ltd., dated March 31, 2020.

Public Consultation Process

In accordance with Conservation Ontario's *Guidelines for Updating Section 28 Mapping: Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulations* as well as public consultation requirements under the MDNP Program, Conservation Halton provided extensive opportunities for municipalities, agencies and the general public to participate.

Two Public Information Centres (PICs) were held for each study to make people aware of the work being done and to provide them with the opportunity to view and provide feedback on preliminary mapping results. Notification was provided in several ways including:

- ads in the local newspapers before each PIC at least 2-3 weeks before
- social media posts (e.g. CH Facebook and Twitter)
- direct e-mail notification (e.g., CH Board of Directors, municipal staff and decision makers, First Nations (Six Nations of the Grand River Territory, Mississaugas of the New Credit First Nations, Métis Nation of Ontario), School Boards, MPPs, provincial agency representatives (Ministry of Transportation, Ministry of Municipal Affairs and Housing, Ministry of Natural Resources and Forestry, Infrastructure Ontario), Department of Fisheries and Oceans, provincial and local utilities, railways, local councillors, local chambers of commerce, home builders associations, and the general public by request)
- CH website

Additionally, to raise awareness of the Grindstone Study, a presentation was made to the Halton Hamilton Agricultural Panel on December 7, 2018.

The PICs for Grindstone Creek were held on November 8, 2018 and February 18, 2020 at the CH Administrative Office. PIC #1 was attended by approximately 25 people while PIC#2 as attended by about 40 people. PIC# 1 for the Morrison-Wedgewood Diversion Channel study was held at Conservation Halton's Administrative Office and PIC # 2 was held at Halton Region's Headquarters on September 19, 2019 and March 5, 2020 respectively. PIC #1 was attended by one individual while PIC #2 was attended by about 20 people.

Technical Advisory Committee members, CH staff and project consultants were available at all PICs to answer specific questions about the study. To ensure those unable to attend PIC's had an opportunity to participate, the informational boards were made available on CH's website and draft mapping was available for public viewing at Conservation Halton's administrative office. PIC attendees and all interested parties were invited to provide their insights and comments. All comments received in writing were recorded and responded to. Final comments were requested to be submitted by March 3, 2020 for the Grindstone Creek study and March 15, 2020 for the Morrison-Wedgewood Diversion Channel study. Comments received were predominately favourable.

For the Grindstone Study, we received several positive messages from landowners expressing support for the work, a willingness to share knowledge of the local watershed, and interest in our potential need to access private properties. Hydro One indicated the presence of facilities of interest within the Study Area. None of the comments received expressed concern over the study findings, however, three residents expressed frustrations related to local drainage or erosion concerns. As these issues fell outside of the scope of this study, these comments were shared with the corresponding municipality.

For the Morrison-Wedgewood study, Conservation Halton received minimal written comment, and no specific comment about the identified spills. Formal comments were made by the Region of Halton regarding potential study impacts on planned capital projects and by the Halton District School Board requesting updated mapping information. Staff committed to meeting with the Region to discuss the new mapping and sending updated GIS information to the school board after the study was finalized and endorsed. Two public comments were received, the first requested consideration for channel naturalization, beautification, and increased public access for recreation along the channel. This comment was submitted in advance of the second PIC when draft study findings on the spill were shared publicly. Staff's response identified capacity and safety concerns, and recommended the respondent refer to Conservation Halton's website to learn more about these challenges by viewing PIC 2 boards on-line. The second public comment identified the value of the Public Information Centre and praised the level of study detail and the knowledge of staff in attendance.

A detailed account of the public consultation process is appended to the final consultant reports, which have been shared with Technical Advisory Committee representatives (comprising all municipalities within each respective study area).

Next Steps

The updated flood line maps will be incorporated into CH's internal regulation mapping. The extent of the regulated area is the extent of the greatest hazard (flooding or erosion) plus a prescribed allowance of 15m for Grindstone Creek and 7.5m for Morrison-Wedgewood Creek.

Conservation Halton is advancing a study to evaluate hydraulic effectiveness of potential mitigation options to address spills from the Morrison-Wedgewood Diversion Channel. This study is to be

completed by March of 2021. CH will work closely with the Town of Oakville and Region of Halton as this study advances.

Both the Grindstone Creek and the Morrison-Wedgewood Floodplain mapping show spill areas. Given that the nature and extent of spills are now being characterized though CH's new floodplain mapping program and other technical studies, a revised policy to describe how CH will address defined spill areas was approved by the Board on March 26, 2020 (CHBD Report 04 20 17). This is an interim policy until such time as the spill is mitigated, new provincial regulations or direction on spills is issued, or new CH spill policies are approved by the CH Board of Directors, after consultation with municipalities and the public. The policy indicates that development and redevelopment in spill areas will be considered on a case-by-case basis. Permission may only be granted where the site is subject to low risk and, where appropriate, mitigation measures can be implemented to reduce potential impacts to the satisfaction of Conservation Halton (e.g., flood proofing).

Conclusion and Recommendation

CH has completed two floodplain mapping studies which define the limits of the flood hazard in the Grindstone Creek watershed and the Morrison-Wedgewood Diversion Channel. An extensive public consultation process was undertaken to ensure that local, provincial and federal agencies, other stakeholders and the general public were made aware of the studies and had opportunities to participate in PICs and provide input. CH staff recommends that the CH Board of Directors approve the updated 2020 floodplain mapping for Grindstone Creek watershed and the Morrison Wedgewood Diversion Channel.

Impact on Strategic Goals

This report supports the Metamorphosis strategic theme of Taking care of our growing communities. The theme is supported by the objective to remain dedicated to ecosystem-based watershed planning that contributes to the development of sustainable rural, urban and suburban communities.

Financial Impact

There is no financial impact as a result of this proposal.

Signed & respectfully submitted:

Barbara J. Veale
Director, Planning and Watershed Management

Approved for circulation:

Hassaan Basit
CAO/Secretary-Treasurer

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