Finance & Audit Committee

Conservation Halton
Zoom:
https://us02web.zoom.us/j/85723206724?pwd=eDloN1JPNmxUbW5nT2VjdTJaeC8vQT09
Jun 9, 2022 9:30 AM - 11:00 AM EDT

Table of Contents

Conservation Halton

June 2022

REPORT TO: **Finance & Audit Committee**

REPORT NO: # FA 02 22 01

FROM: Marnie Piggot, Director, Finance

DATE: June 9, 2022

SUBJECT: **Asset Management Plan (2022) – Dams and Channels**

Recommendation

THAT the Finance & Audit Committee **recommends to the Conservation Halton Board of Directors the approval of the Asset Management Plan (2022) – Dams and Channels.**

Report

Conservation Halton (CH) staff prepared the first Asset Management (AM) Plan for dams and channels in mid-2017. Completion of an Asset Management Plan was a request from the Region of Halton in the 2017 budget municipal funding approval. The recent changes in the Conservation Authorities Act (CA Act) regulations now require all Conservation Authorities to complete Asset Management Plans.

CH undertook a phased approach for the completion of its asset management (AM) plans for its assets from 2017 to 2020. Five-year updates of the AM plans are proposed in line with best practices and the AM plan updates are provided for in the annual budget and forecasts.

Watson & Associates was engaged to update the 2022 AM plan for dams and channels with staff assistance. Watson was previously awarded consulting services through a request for proposal to assist staff with the development of AM plans for Facilities in 2019 and for all other assets in 2020.

The attached Asset Management Plan (Appendix A) prepared by Watson and CH staff contains details on the Levels of Service, Lifecycle Management Strategy and Financial Strategy for CH's four dams and three channels.

A summary of key points from the Asset Management Plan (2022) Dams and Channels are as follows:

1) Dams and Channels current replacement cost in Table 1-1 totals $310.5 million. This is substantially higher than the 2017 plan total replacement cost of $94.9 million for a few reasons. Staff have more information on dams and channels costs through various studies and maintenance projects completed since 2017 that has provided more accurate costing information that was not available when the first plan was developed. Also, the costing approach in the 2022 plan update is more comprehensive with the incorporation of dam major components and their associated lifecycle activities based on historic costs, similar projects in the province as well as staff knowledge and expertise.

2) Overall condition assessment of the dams and channels:

Dams – Table 1-5 provides an assessment by dam and the various dam components. Condition ratings are shown as good and very good for CH's four dams at Kelso, Hilton Falls, Mountsberg and Scotch Block. The updated assessment is a significant improvement from the previous AM plan that provided an overall condition assessment of one dam as good, two dams rated as fair, and Kelso Dam rated in poor condition. The improved condition assessment is the result of significant maintenance work completed since the first plan was prepared, the major rehabilitation at Kelso Dam and additional information obtained through other assessments and studies.

Channels – Table 1-6 provides the condition assessments for the main branches of CH's three channels, Morrison-Wedgewood, Milton and Hager-Rambo. The updated plan indicates condition assessment ratings of good for the most part, with some channel sections noted in fair condition. Again, this is a significant improvement from the 2017 plan that reported two channels in fair condition and one channel in poor condition. This implied improvement can be attributed primarily to a more detailed approach in assessing channel conditions based on a 2020-2021 channel assessment study. Additionally, some improvement can be attributed to channel repairs made over the last five years, primarily for the Milton Channel.

Section 3 of the report provides the estimated average annual lifecycle requirements for the dams and channels totalling $1,133,000:

3)

- $245,000 is shown in Figure 3-2 as the Dams average annual cost over the next 20 years.
- $888,000 in Figure 3-4 provides the Channels average annual lifecycle cost over the next 15 years.

4) The financing strategy in the plan continues to assume the annual lifecycle cost requirements will be funded 50% provincially and 50% through the municipally funded State of Good Repair levy transferred to the Watershed Management Capital Reserve. Based on 50% of the total annual lifecycle costs for dams and channels of $1,133,000 funded municipally this results in a current annual municipal lifecycle funding target of $567,000. The target funding level has decreased from the previous plan that recommended target municipal reserve funding of $750,000. The decrease in the amount is the result of the significant improvement work completed over the five-year period since the plan was completed, enhanced information that is now available and the current reserve funding level.

Appendix Table A-5 provides the capital forecast for dams and channels including estimated costs and funding sources. The municipal lifecycle funding target of $567,000 is proposed to increase in the plan annually by 4% based on 20-year average Statistics Canada Building Construction Price Index. The plan recommends increases in the State of Good Repair levy to reach the target municipal funding level by 2028.

Impact on Strategic Goals

This report supports the Momentum priority of Organizational Sustainability.

Financial Impact

The Asset Management Plan (2022) – Dams & Channels recommends a current target for annual municipal funding of $567,000 based on estimated annual costs and current joint funding of these costs from the province. The updated plan includes a financing strategy to reach target municipal funding plus inflation by 2028. The State of Good Repair levy in the 2022 budget is $316,500 and the plan proposes an increase in the SOGR levy of $46,200 for 2023 to $362,700. The increase of $46,200 in the SOGR levy for Dams & Channels has been included in the 2023 preliminary budget consistent with the financing strategy in the updated plan.

Signed & respectfully submitted:

Marnie Piggot
Director, Finance

Approved for circulation:

Hassaan Basit
President & CEO/Secretary-Treasurer

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Asset Management Plan (2022)
Dams and Channels

Conservation Halton

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May 27, 2022

Table of Contents

List of Acronyms and Abbreviations

DSR	Dam Safety Review
MNDMNRF	Ministry of Northern Development, Mines, Natural Resources and Forestry
QEW	Queen Elizabeth Way
WECI	Water and Erosion Control Infrastructure Program

Executive Summary

Executive Summary

One of Conservation Halton's three main areas of focus is water resource management. The assets that support this area of focus are three channels with a combined length of 11.6 kilometres and four dams. Significant investments have been made historically in constructing Conservation Halton's dams and channels. Their current replacement cost is estimated at $310.5 million, as summarized in Table ES-1 below.

Table ES-1: Summary Information by Dam and Channel

Asset Category	Quantity	Units	Replacement Value
Dams	4	Number	$90,500,000
Channels	11.6	Kilometres	$220,000,000
		Total	**$310,500,000**

Conservation Halton takes a proactive approach to managing these critical assets in a way that connects its strategic priorities to specific investment decisions. This asset management plan documents Conservation Halton's approach to managing the dams and channels in support of its service mandate. Specifically, the asset management plan provides summary information on the physical characteristics and current condition of assets, the levels of service they provide, how they are being managed, and outlines a sustainable financial strategy to support planned capital projects related to the assets. It also establishes a long-term funding target that would allow Conservation Halton to sustain the assets over the long term.

Since the first asset management plan for dams and channels was completed in 2017, substantial investments have been made in the lifecycle renewal of the assets, including major work done at the Kelso Dam and the Milton Channel. The effects of these investments are demonstrated by an improvement in the overall condition and other performance measures, as documented by recent studies and assessments. While the average condition of both dams and channels is now Good, there are some areas that will require attention over the coming years. Conservation Halton has developed a 20-year capital plan which addresses the remaining dam components in Fair and Poor condition and channel segments that are in Fair condition.

A lifecycle management strategy is included in the plan to ensure the sustainable provision of services beyond the next 20 years. The lifecycle management strategy documents the lifecycle activities that need to be performed over the full lifecycle of assets to ensure they perform as intended and do not require premature replacement. A key output of the lifecycle management strategy is an estimate of long-run funding needs that is used to establish a sustainable annual lifecycle funding target. The annual lifecycle funding target for dams and channels has been estimated at approximately $1.13 million in current dollars. This amount comprises $245,000 for dams and $888,000 for channels.

Capital expenditures related to dams and channels are funded 50% by the Province of Ontario through the Water and Erosion Control Infrastructure Program and 50% by contributions from municipal partners through the State of Good Repair levy. In 2022, $316,500 from the municipal State of Good Repair levy was allocated to dams and channels. This amount needs to be increased to $567,000 (i.e., half the total lifecycle funding target). It is recommended that Conservation Halton phase in the increase over the next six years. Details of how the increase will be phased in and how adjustments will be made to the lifecycle funding target to account for inflation[1] are provided in the Financial Strategy section and Table A-4 in Appendix A. The phase-in does not jeopardize Conservation Halton's long-term financial sustainability. The financial strategy has been designed to eliminate the need for additional debt financing while at the same time maintaining a relatively stable balance in the State of Good Repair reserve.

[1] An annual capital inflation factor of 4.0% is used in the financial analysis. It aligns closely with the historical 20-year annual average rate of inflation in Statistics Canada's Building Construction Price Index.

Report

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 the first area of focus, water resource management.

Conservation Halton completed an asset management plan for its assets in a phased approach:

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

Phase 1 was completed by Conservation Halton staff in 2017. Watson & Associates Economists Ltd. (Watson) completed Phase 2 in 2019 and Phase 3 in 2020. Conservation Halton intends to update its asset management plans on a five-year cycle. This report is the first five-year update of the Phase 1 report, "Asset Management Plan for Dams & Channels."

This plan covers all major infrastructure assets related to dams and channels. Table 1-1 shows a summary of the assets covered in this report. The total replacement value of these assets is $310.5 million. These assets are key resources that support safe communities through the management of flooding and erosion. They support Conservation Halton's strategic priority: "Protect people, property, drinking water sources and natural resources to support development that is in balance with the environment."

Table 1-1: Asset Summary

Asset Category	Quantity	Units	Replacement Value
Dams	4	Number	$90,500,000
Channels	11.6	Kilometres	$220,000,000
		Total	**$310,500,000**

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 when 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 dams and channels in a manner that will support a sustainable provision of services.

This updated plan builds on the work done in 2017, incorporating results from studies and reports completed since then and further insights from Conservation Halton staff. Through the implementation of the asset management plan, Conservation Halton's practice should evolve to provide services at the levels proposed within this document. 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. Review the 2017 asset management plan, “Asset Management Plan for Dams & Channels.”

2. Compile available information pertaining to dams and channels that can be used to update the analysis completed in 2017. This includes Dam Safety Reviews (DSRs) and a condition assessment and capital improvement plan for channels.

3. Develop a methodology for aggregating condition assessment data.

4. Review the levels of service framework included in the 2017 asset management plan and refine it based on discussions with Conservation Halton staff.

5. Review the lifecycle management strategy identified in the 2017 asset management plan and refine it using current data and knowledge.

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

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

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

1.3 Asset Details

1.3.1 Dams

Conservation Halton’s dams, along with many of the major dams within other Conservation Authorities across the Greater Toronto Area, were built as a direct response to the devastation associated with Hurricane Hazel in October 1954. Most facilities were constructed in the 1960s and 1970s. Post 1970, a more passive approach to hazard management, including land acquisition and regulation, was adopted instead of building costly engineered structures.

There are four dams located within the Conservation Halton watershed:

- The Hilton Falls and Kelso Dams are located north and south of Highway 401 in the Town of Milton on the main branch of Sixteen Mile Creek and discharge downstream through downtown Milton.
- The Mountsberg Dam is located within the Bronte Creek watershed, straddling the boundary between the City of Hamilton and the Township of Puslinch. This reservoir discharges downstream to Mountsberg Creek which outlets into Bronte Creek, upstream of the community of Carlisle.
- The Scotch Block Dam is located upstream of Regional Road 25 within the Town of Halton Hills, on Middle Sixteen Mile Creek. This reservoir discharges downstream through the communities of Mansewood, Hornby and Drumquin.

The replacement costs and original construction years of each dam are shown in Table 1-2. The replacement costs for the dams were estimated using the bulk quantities and unit pricing shown in Table A-1 in Appendix A.

Table 1-2: Dam Replacement Cost and Year Built

Dam	Year Built	Replacement Cost
Kelso	1962	$28,000,000
Hilton Falls	1974	$36,000,000
Mountsberg	1967	$4,500,000
Scotch Block	1971	$22,000,000
	Total	$90,500,000

1.3.2 Channels

There are three concrete-lined channels for which Conservation Halton is responsible. The replacement costs, lengths, and original construction years of each channel are shown in Table 1-3. The replacement costs for the channels were estimated based on

an average cost per slab for the concrete slabs that make up the concrete linings. The estimated average replacement cost per slab is $31,200.[1]

Table 1-3: Channel Length, Replacement Cost, and Year Built

Channel	Length (km)	Number of Slabs	Year Built	Replacement Cost
Morrison-Wedgewood	4.1	2,503	1969	$78,100,000
Milton	3.0	2,222	1974-1982	$69,300,000
Hager-Rambo	4.5	2,339	1976	$73,000,000
Total	**11.6**	**7,064**	**-**	**$220,400,000**

1.4 Asset Condition

The asset conditions reported for dams and channels are based on the Canadian National Infrastructure Report Card[2] 5-point rating scale shown in Table 1-4. For both dams and channels, Conservation Halton staff assigned condition ratings based on recent third party engineering reports, condition assessments and their working knowledge of the assets.

[1] The replacement cost of $31,200 per slab is from the 2021 Channels Condition Assessment and Capital Improvements Plan completed by Ecosystems Recovery Inc.
[2] Canadian Infrastructure Report Card; Volume 1: 2012; Municipal Roads and Water Systems; www.canadainfrastructure.ca; p. 59.

Table 1-4: 5-point Condition Rating Scale

Condition Rating	Condition Score	Description
Very Good	5	The infrastructure in the system or network is generally in very good condition, typically new or recently rehabilitated. A few elements show general signs of deterioration that require attention.
Good	4	The infrastructure in the system or network is in good condition; some elements show general signs of deterioration that require attention. A few elements exhibit significant deficiencies.
Fair	3	The infrastructure in the system or networks is in fair condition; it shows general signs of deterioration and requires attention. Some elements exhibit significant deficiencies.
Poor	2	The infrastructure in the system or network is in poor condition and mostly below standard, with many elements approaching the end of their service life. A large portion of the system exhibits significant deterioration.
Very Poor	1	The infrastructure in the system or network is in unacceptable condition with widespread signs of advanced deterioration. Many components in the system exhibit signs of imminent failure, which is affecting service.

1.4.1 Dams

For assigning condition ratings, dams were broken down into a total of 118 major components in six categories.[1] Once condition ratings were assigned to all major components, they were aggregated to the category and dam levels using a weighted average. The weights are based on the average annual lifecycle cost of the component and are listed in Table A-2 in Appendix A. The condition rating and weight of each major component are detailed in Table A-3 of Appendix A. The overall average condition rating of dams is Good. Table 1-5 summarizes condition by dam and component category.

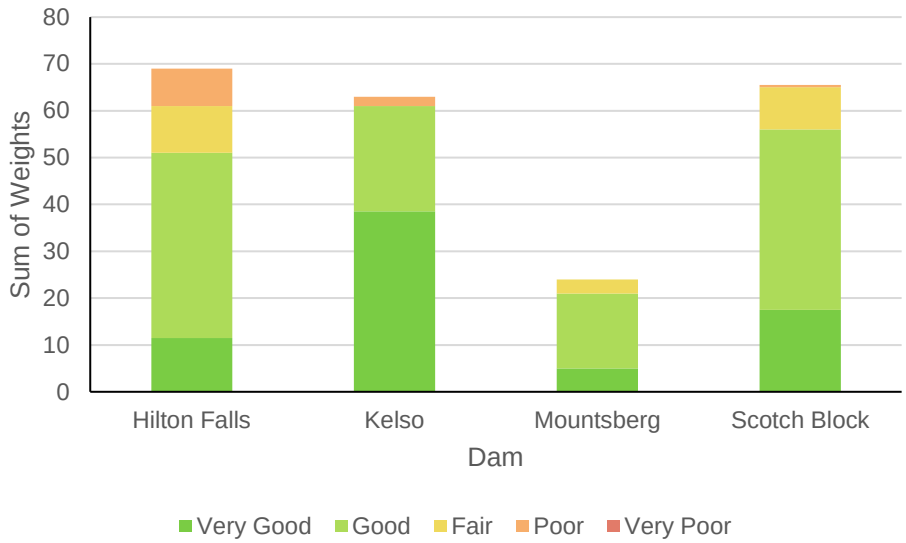
[1] The 118 major components are distributed across dams as follows: Kelso, 37 major components; Hilton Falls, 31 major components; Mountsberg, 16 major components; Scotch Block, 34 major components.

Figure 1-1 shows the sum of the major component weights by condition. It shows some major components are rated as Fair and Poor, all of which have been identified for repair, replacement or study within the 10 year capital budget, or will be managed through operations and maintenance.

Table 1-5: Component Category Condition by Dam

Category	Kelso	Hilton Falls		Mountsberg	Scotch Block	All Dams
Civil	Very Good	Good		Good	Good	Good
Electrical	Very Good	Good		Very Good	Very Good	Very Good
Instrumentation	Very Good	Good		Very Good	Good	Good
Mechanical	Very Good	Good		Good	Good	Good
Safety Systems	Very Good	Very Good		Very Good	Good	Good
Structural	Good	Good		Good	Good	Good
All Components	**Very Good**	**Good**		**Good**	**Good**	**Good**

Figure 1-1: Sum of Major Component Weights by Dam and Condition Rating



1.4.2 Channels

For assigning condition ratings, the channels were broken down into 21 segments bounded by roads or other features which intersect or cross the channels. Table 1-6 shows the segments, their lengths, and their condition ratings. The segment lengths were used to calculate weighted averages of the condition ratings. On average, each of the three channels is rated as Good.

Table 1-6: Length and Condition of Channel Segments

Channel	Branch	Segment of Channel	Length (km)	Condition Rating
Morrison-Wedgewood	Main	16 Mile Creek to Sixth Line	0.58	Good
	Main	Sixth Line to Kent Ave.	0.39	Good
	Main	Kent Ave. to Trafalgar Rd.	0.86	Fair
	Main	Trafalgar Rd. to Eighth Line	0.84	Good
	Main	Eighth Line to Intake	1.47	Good
	Morrison-Wedgewood Subtotal		**4.13**	**Good**
Milton	Main	Steeles to WI Dick Bridge	0.57	Fair
	Main	WI Dick Bridge to Woodward Ave.	0.36	Good
	Main	Woodward Ave. to CN Railway	0.28	Good
	Main	CN Railway to Main St. E	0.31	Good
	Side	Mill Pond to Main St. E	0.23	Good
	Main	Main St. E to Pine St.	0.20	Good
	Main	Pine St. to Outlet	1.00	Good
	Milton Subtotal		**2.95**	**Good**
Hager-Rambo	Main	QEW to Maple Ave.	0.42	Good
	Main	Maple Ave. to Thorpe Rd.	0.25	Good
	Main	Thorpe Rd. to CN Railway	0.75	Good
	Side	Freeman Pond to CN Railway	0.59	Fair
	Side	CN Railway to Plains Rd. E	0.17	Good
	Side	Plains Rd. E to Main Branch	0.60	Good
	Main	CN Railway to Brant St.	0.54	Good
	Main	Brant St. to Fairview St.	0.48	Fair
	Main	Fairview St. to End	0.75	Fair
	Hager-Rambo Subtotal		**4.53**	**Good**
All Channels Total			**11.62**	**Good**

Figure 1-2: Sum of Channel Lengths by Channel and Condition Rating

2. Levels of Service

In the context of asset management, levels of service set out the specific outputs or objectives that an organisation intends its physical assets to deliver.[1] In doing so, levels of service provide a platform for asset management decisions. Community levels of service identify service objectives, and technical levels of service provide quantifiable metrics that measure the performance of the assets relative to those service objectives.

Conservation Halton's levels of service framework is contained in two tables – Table 2-1 and Table 2-2. Table 2-1 identifies relevant service attributes and defines community levels of service for each of those attributes. The service attributes are intended to capture all major aspects that are of interest to the users of a service. The community levels of service are presented as statements describing the service objectives and outcomes that Conservation Halton intends the dams and channels infrastructure to deliver. Table 2-2 describes the technical levels of service connected to each of the service attributes and shows the current performance for each performance measure, the target for the performance measure and a target date for achieving the target if current performance is below the target.

The levels of service framework has been revised with an emphasis on service aspects that are typically addressed through capital lifecycle activities[2]. Three of the seven performance measures now being reported have been carried forward from the 2017 asset management plan. The performance for all three of these measures has improved relative to 2016. A brief discussion of the factors that have contributed to improved performance is provided below:

- The average condition of dams has improved as a result of investments made over the last five years to address deficiencies.
- The average condition of channels has improved for two reasons. First, investments were made over the past five years to address deficiencies in the Milton Channel. Second, a different condition assessment methodology was

[1] It is important to note that physical assets are only a portion of what is required to deliver broader service objectives.
[2] For physical assets, an organisation should consider both major (capital) lifecycle activities as well as operational and maintenance activities, as all of these contribute to the overall level of service being provided. However, operational and maintenance aspects fall outside the scope of the asset management plan.

used which changed focus away from ancillary details like fencing and emphasized concrete condition.

- The percentage of dams that meet or exceed applicable regulatory criteria and accepted technical guidelines rose because of the substantial capital improvements performed on the assets. One example was the major work done at the Kelso Dam from 2015 to 2019 which addressed internal erosion and piping issues through the construction of energy dissipation, embankment grouting and instrumentation upgrades.

Table 2-1: Community Levels of Service

Service Attribute	Community Levels of Service
Condition	Ensure flood control infrastructure is well maintained to ensure safe and reliable function.
Capacity	Ensure flood control infrastructure protects public safety, and reduces property damage associated with riverine flooding events
Responsiveness	Ensure that identified safety and maintenance concerns with flood control infrastructure are addressed in a timely manner

Table 2-2: Technical Levels of Service

Service Attribute	Technical Levels of Service	2016 Performance[1]	2021 Performance	Target	Timeframe for Achieving Target
Condition	Average condition of dams	Fair	Good	Good or better	Maintain
	Percentage of dam components in a condition of Good or Very Good	Not Available	86%	90%	2026
	Average condition of channels	Fair	Good	Good or better	Maintain
	Percentage of channel length in a condition of Good or Very Good	Not Available	72%	80%	2026
Capacity	Percentage of dams that meet or exceed applicable regulatory criteria and accepted technical guidelines	75%	100%	100%	Maintain
	Number of over-topping events within the channels	Not Available	0	0	Maintain
Responsiveness	Percentage of identified safety, maintenance, inspection, and repair concerns addressed within assigned response time	Not Available	95%	90%	Maintain

[1] From the 2017 Dams & Channels Asset Management Plan.

3. Lifecycle Management Strategies

3.1 Introduction

This chapter details the lifecycle management strategies required to achieve the proposed levels of service presented in Chapter 2. A lifecycle management strategy identifies the recommended lifecycle activities required to achieve the levels of service discussed. Within the context of this asset management plan, lifecycle activities are the specified actions that can be performed on an asset in order to ensure it is performing at an appropriate level and/or to extend its service life.[1] These actions can be carried out on a planned schedule in a prescriptive manner or through a dynamic approach where the lifecycle activities are only carried out when specified conditions are met.

The following two sections contain the lifecycle management strategies for Conservation Halton's dams and channels, respectively. The lifecycle management strategy for each asset is presented in two parts. The first part, Decision Making Process, discusses how projects are selected and prioritized for implementation. The second part, Estimating Long-run Needs, presents a generalized lifecycle model for how assets and their components are typically maintained and replaced. The generalized lifecycle model is used to estimate average annual lifecycle costs. The final sections present Conservation Halton's procurement methods and risk analysis.

3.2 Dams – Lifecycle Management Strategies

3.2.1 Decision Making Process

Conservation Halton staff visit each dam location on a regular basis to carry out visual inspections and dam operations, and to perform minor maintenance and repairs as required. Security staff conduct visits to each site several times a week to inspect for signs of vandalism and ensure buildings and security access points are locked and secured. Furthermore, cameras installed at each of the dams allow staff to remotely monitor the dams at any time.

[1] The full lifecycle of an asset includes activities such as initial planning and maintenance which are typically addressed through master planning studies and maintenance management, respectively.

Annual inspections are conducted by Conservation Halton staff who are professional engineers or technologists. During the inspections, staff identify any overall concerns, take photos to document the condition of assets, test or inspect all components, and subsequently document all results.

DSRs are done for each dam, typically on a 10-year cycle or as defined by legislation or industry best practices. A DSR is a systematic review and evaluation of all aspects of design, construction, maintenance, operation, and surveillance, as well as other factors, processes and systems affecting a dam's safety. The Ministry of Northern Development, Mines, Natural Resources and Forestry (MNDMNRF) and the Canadian Dam Association publish best management practices and frameworks for dam owners and engineers which guide how DSRs are completed. DSRs identify capital project recommendations for Conservation Halton's consideration.

Each year, Conservation Halton staff review recent engineering studies, DSR's, condition assessments, and any other available information to identify outstanding deficiencies that need to be corrected either through operations and maintenance or through capital projects. The capital projects are then prioritized and assigned to specific years in a 10-year capital forecast. Project prioritization is based on a combination of recommended repair timelines, procurement limitations, concurrent project conflicts, and funding availability while simultaneously trying to maintain annual funding needs.

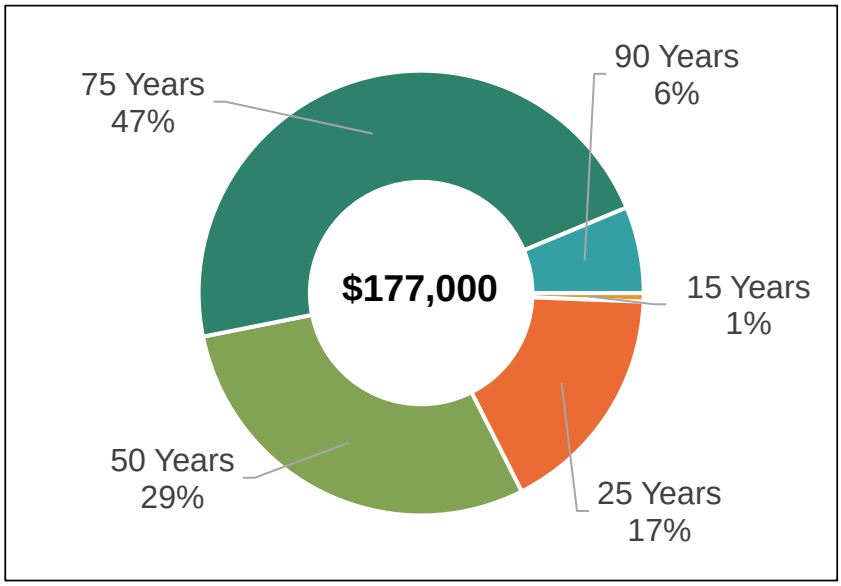
3.2.2 Estimating Long-run Needs

The long-run capital investment needs for dams have been estimated based on a component level analysis using the same componentization used to report on the condition of dams. There are two broad lifecycle strategies used for dam components. Of the 118 components listed, 77 are eventually replaced in their entirety. These components may have rehabilitation lifecycle activities part way through their useful life or may simply be replaced when they no longer function as intended. These 77 components have a total replacement cost of $3.7 million, 4% of the estimated total replacement cost of $90.5 million for the dams. The remaining 41 components are not expected to be replaced in their entirety. This is because they can be maintained through sequences of rehabilitations that restore the components to an as-new condition. Table A-4 in Appendix A shows the lifecycle assumptions for each component identifying lifecycle activities, the year the activity takes place in the asset's

lifecycle, the cost of the lifecycle activity for the component, and notes describing the lifecycle activity.

Whether or not a component is replaced, it has a well-defined lifecycle that ends at the last lifecycle activity identified. An average annual rehabilitation and replacement cost can be calculated for each component by summing all the lifecycle costs identified for a component and dividing the total by the age at which the last lifecycle activity is performed. Summing the average annual rehabilitation and replacement costs for all dam components results in a total average annual cost for all dams of $177,000 per year for component rehabilitation and replacement. The lengths of the lifecycles of components range from 15 to 90 years. Figure 3-1 shows that most of the rehabilitation and replacement costs are related to components with long lifecycles. Because of this, lifecycle expenditures may be lumpy, with significant peaks and valleys on a timescale of decades.

Figure 3-1: Distribution of Average Annual Component Rehabilitation and Replacement Cost by Lifecycle Length



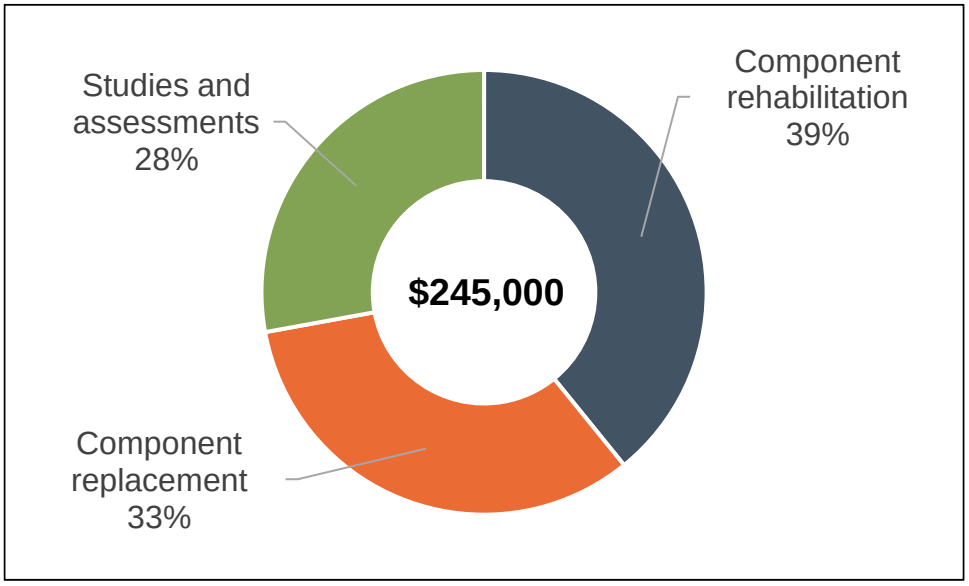
In addition to rehabilitating and replacing dam components, various studies and assessments need to be completed on a regular basis to ensure that the dams are performing as required. Table 3-1 shows the studies and assessments Conservation Halton undertakes for dams, how often they need to be done, their estimated cost, and the resulting average annual cost. For all studies and assessments together, the average annual cost is $68,300 per year. These costs should be included in the total

annual lifecycle costs because they are an integral part of the asset lifecycle. The average annual lifecycle cost for dams, including the cost of studies and assessments, is $245,000 per year. Figure 3-2 shows the breakdown of average annual lifecycle costs between component rehabilitation, component replacement, and studies and assessments.

Table 3-1: Dam Studies and Assessments

Recurring Studies	Quantity	Frequency	Unit Price	Total	Average Annual Cost
Dam Safety Reviews	4 (one per dam)	10 Year	$97,000	$388,000	$38,800
Breach Analysis and Inundation Mapping	4 (one per dam)	20 Year	$60,000	$240,000	$12,000
Public Safety Assessment	1 (covers all four dams)	5 Year	$41,000	$41,000	$8,200
Seismic Hazard Assessment and Impact Study	1 (covers all four dams)	10 Year	$54,000	$54,000	$5,400
Gate and Valve Inspection	1 (covers all four dams)	10 Year	$40,000	$40,000	$4,000
			Total	**$763,000**	**$68,300**

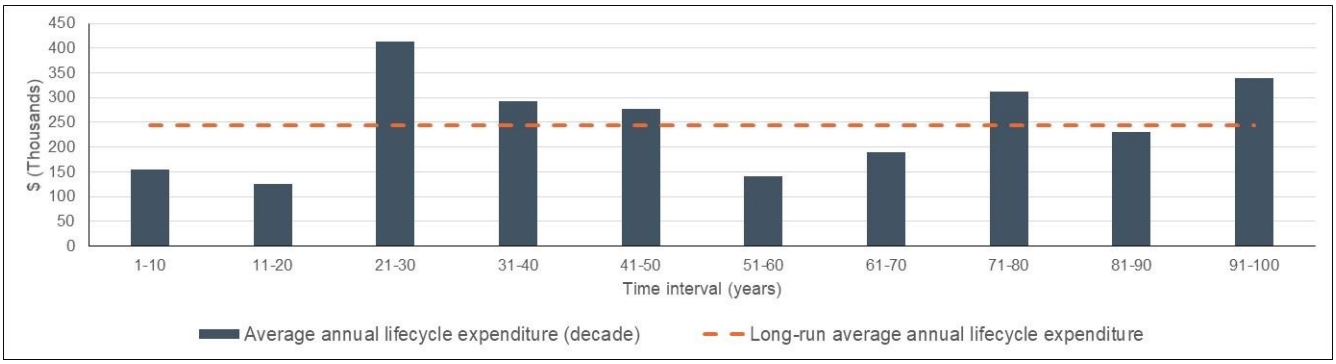
Figure 3-2: Dams – Distribution of Average Annual Lifecycle Cost



In addition to estimating average annual lifecycle costs, the lifecycle management strategies can be used to forecast expenditures by year if data is available on where each component is in its lifecycle. Conservation Halton staff provided data on the date of initial construction or installation of each of the 118 components. They then reviewed the components' remaining useful lives to determine if any adjustments needed to be made to reflect actual condition or planned work on components. The adjusted remaining useful lives were used to create a long-run forecast of lifecycle activities and the associated costs.

Figure 3-3 shows the forecast of lifecycle expenditures, averaged by decade. Based on this forecast, the lifecycle expenditures over the next two decades will be lower than the long-run average, while the reverse is true for the following three decades. This creates a potential opportunity for Conservation Halton to accumulate funds in reserves over the next two decades to help offset the higher-than-average expenditures forecast for the following three decades.

Figure 3-3: Dams – Average Annual Lifecycle Expenditures by Decade



3.3 Channels – Lifecycle Management Strategies

3.3.1 Decision Making Process

Conservation Halton staff perform site visits of each channel on a regular basis and also respond immediately to any public complaints regarding specific locations. Visual inspections are carried out as well as routine maintenance and repairs involving grass cutting, tree pruning and removal, garbage and debris removal, fence repairs and sediment removal.

Conservation Halton staff perform two types of inspections on a regular basis – detailed and general. Detailed inspections are conducted every three years, typically occurring in the spring prior to vegetation growth, and take approximately two weeks per channel. During these detailed inspections, staff identify any overall concerns, take photos to document the condition of assets, measure size and document the direction of cracks, and subsequently document all results. General inspections are conducted annually between detailed inspections to identify any major issues. These inspections are carried out over one to two days per channel.

In addition to the regular inspections performed by Conservation Halton staff, in 2021 a Channel Condition Assessment and Capital Improvement Plan was completed by Ecosystem Recovery Inc. This study provided recommendations for capital improvements and replacements to be completed over the next 15 years.

3.3.2 Estimating Long-run Needs

The analysis of lifecycle costs related to channels mainly revolves around the concrete slabs that line the channels. Other site-related assets, such as fencing, are assumed to be maintained on an ongoing basis through the operating budget.

Lifecycle models similar to those used for dams, with lifecycle activities assigned to years, are not appropriate for channels. Once set, concrete is a very durable material. Individual channel slabs could last indefinitely with appropriate maintenance if there are no adverse events that damage or place excessive loads on them. Lifecycle activities are not done at a predictable time to address accumulated wear and tear. Instead, they are done to address unexpected low-probability, event-driven failures that could happen at any time in a slab's life. If failures are driven by random events rather than wear and tear, it is reasonable to expect capital costs to remain relatively stable from decade to decade.

For this iteration of the asset management plan, it has been assumed that the long-run, average annual needs will be similar to the needs identified in the Channel Condition Assessment and Capital Improvement Plan (Channel Plan) that was completed in 2021. The Channel Plan includes a capital forecast for the next 15 years. Table 3-2 shows average annual costs per kilometre of channel for the lifecycle activities identified in the Channel Plan. The total average annual cost over the next 15 years for the 11.6 kilometres of channels is approximately $880,000 per year.

Table 3-2: Channel Lifecycle Activities

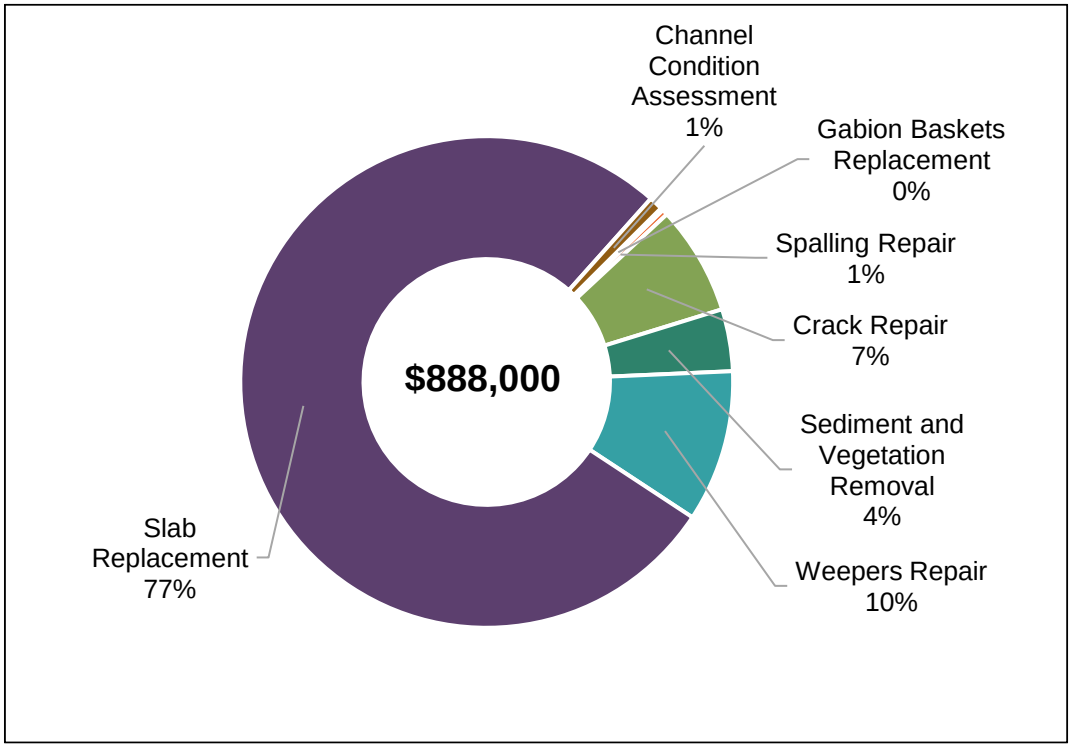
Lifecycle Activity	Description	Cost per Kilometre per Year
Crack Repair	Includes tree removal (where required) and minor crack repairs by filling cracks with backer rods and hot poured rubberized sealant as per OPSD 508.020. Cracks greater than 25 mm will require repair with concrete grout.	$5,480
Weeper Repair	Includes tree/vegetation removal, existing weeper removal and replacement with 75 mm PVC pipe.	$7,630
Spalling Repair	Includes non-structural concrete patch repair.	$280
Sediment and Vegetation Removal	Includes erosion and sediment control, dewatering (if required), flow bypass and isolation, mechanical sediment removal and disposal of sediment and vegetation at landfill.	$3,120
Gabion Basket Replacement	Includes erosion and sediment control, flow bypass and isolation, removal of existing baskets, supply and installation of backfill material, and supply and installation of gabion baskets.	$140
Slab Replacement	Slab replacement includes concrete removals, void filling (50% volume), pouring and forming new concrete slab, joint sealing and weeper replacement.	$59,090
	Total	**$75,738**

The estimate of long-run needs may change significantly in the future as more data becomes available. Based on discussions with Conservation Halton staff and the methodology used for the forecast in the Channel Plan, the investment needs identified in the 15-year capital plan are being considered high-level estimates, mainly because detailed design work has not yet been done. Actual project costs could be significantly higher or lower and may lead to revisions to the estimate of long-run needs that will be addressed in future updates of this asset management plan. It is also possible that the long-run average annual needs will be somewhat lower than the average over the next 15 years because there is a backlog of work being addressed in the 15-year capital plan.

In addition to the lifecycle activities related to concrete slabs, Conservation Halton intends to do a formal condition assessment of the channels every five years at a cost of $40,000. The annualized cost of the quinquennial condition assessment ($8,000)

should be included in the total annual lifecycle cost of channels because it is considered to be an integral part of the asset lifecycle. This brings the total average annual lifecycle need for channels to $888,000 per year. Figure 3-4 shows the distribution of the average annual lifecycle cost by lifecycle activity.

Figure 3-4: Channels – Distribution of Average Annual Lifecycle Cost



3.4 Procurement Methods

In addition to the physical lifecycle activities discussed in the previous two sections, Conservation Halton also leverages non-infrastructure solutions where appropriate to reduce asset-related costs and improve asset performance. One of these non-infrastructure solutions is Conservation Halton's Board-approved Purchasing Policy, which guides all procurement practices. It allows for a range of procurement practices to ensure the best value when purchasing goods and services. The key objectives of the policy are to:

- Procure goods and services in an efficient and cost-effective manner;
- Encourage open competitive bidding;

- Ensure objectivity and integrity of the procurement process;
- Ensure fairness between bidders;
- Maximize savings for the taxpayers; and
- Have regard for the conservation and preservation of the natural environment.

3.5 Risk Strategy

Risks relating to infrastructure failure are mitigated through ongoing inspection and maintenance programs which provide the necessary data to identify the work required to achieve and/or maintain the established levels of service. Further, annual capital and operating budgets, as well as 10-year capital forecasts, are updated accordingly to reflect the corresponding funding requirements.

Since 2010, regular inspection protocols have been followed by Conservation Halton staff and a database has been created to store detailed information including asset condition information and photos taken during inspections. The database is also useful in managing the risk of knowledge retention in the event of staff turnover.

Dams and channels were built based on standards that were in place at the time of construction. Standards and expectations for the service delivery of these assets can change over their lifecycle (e.g., in response to changing patterns of extreme weather events resulting from climate change). Conservation Halton manages the risks associated with changing standards by conducting the DSRs mentioned earlier in this report. The DSRs are intended to review the structures relative to current standards and guidelines and propose upgrades to keep them functioning in accordance with current requirements.

The provincial Water and Erosion Control Infrastructure (WECI) program managed by MNDMNRF, has historically provided matching funds to conservation authorities to finance capital expenditures for dams and channels major repair projects to ensure flood control structures provide safety and protection to the public. The WECI funding program, however, has been consistently over-subscribed, indicating there is a greater demand than the available funding. This could impact the future funding available to maintain assets in a good state of repair to continue delivering the expected levels of service.

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 processes to ensure the sustainability of Conservation Halton's financial position as it relates to its dams and channels assets.

The financing strategy in this asset management plan has been developed for a 20-year forecast period to enable Conservation Halton to evaluate the sustainability of its dams and channels over this time horizon. The recommended financing strategy identifies rehabilitation and replacement activities required over the forecast period, as described in preceding sections of this plan.

4.2 Annual Costs

The capital expenditures projected for the 2022 to 2041 forecast period are shown in Table A-5 in Appendix A. The expenditure forecast for dams and channels is based on the lifecycle activities identified in preceding sections of this plan.

The expenditure forecast uses a capital inflation factor of 4.0% annually, which aligns closely with the historical 20-year annual average rate of inflation as witnessed in Statistics Canada's Building Construction Price Index.[1]

4.3 Funding

Full details of the recommended strategy to finance the asset lifecycle costs are provided in Table A-5 and Table A-6 in Appendix A. The funding forecast was based on the funding sources identified in Conservation Halton's 2022 budget.

[1] Statistics Canada. Table 18-10-0135-01 Building construction price indexes, by type of building. Toronto series, Non-residential buildings [2362], Q4-2001 to Q4-2021.

The lifecycle costs required to sustain established levels of service targets are being funded from two major sources:

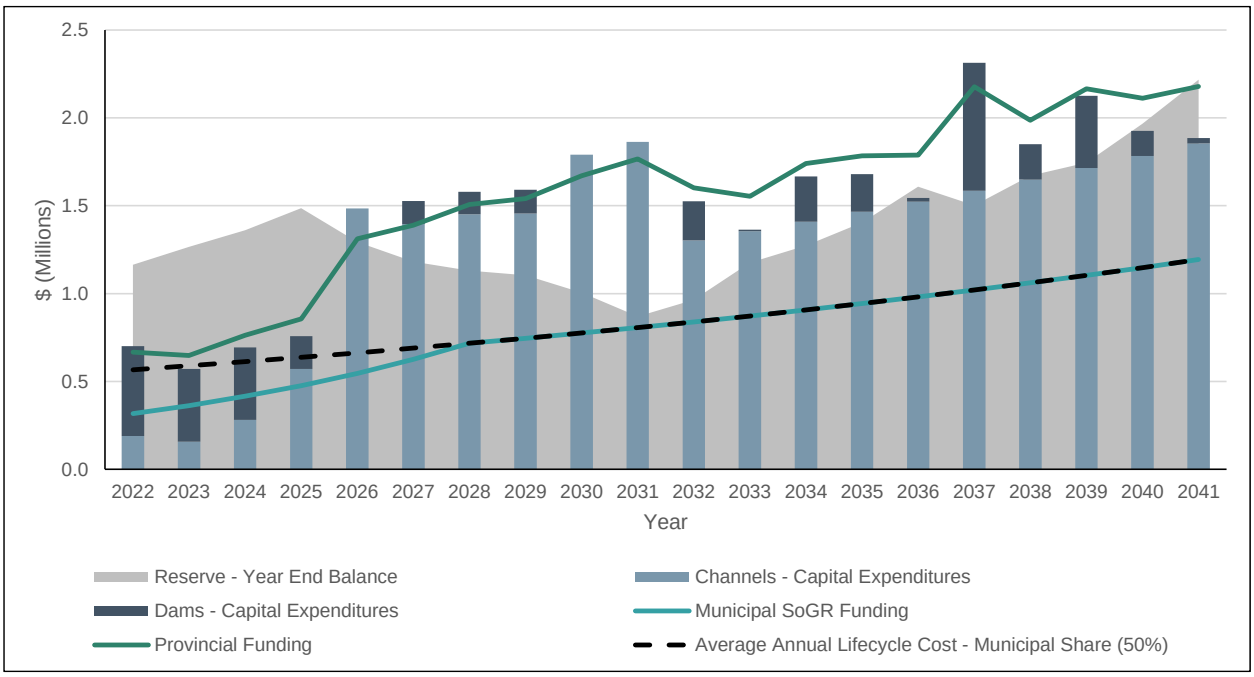
- Provincial funding through the WECI grant; and
- Contributions from municipal partners supported from their tax levy through the State of Good Repair levy.

Historically, the provincial WECI grant has covered 50% of the cost of capital projects for dams and channels. While a grant such as the WECI grant can be changed or cancelled at any time, it is included as a source of capital funding in the financial analysis. If the parameters of the grant change in the future, this financial strategy will need to be reviewed and updated.

In 2022, $316,500 from the municipal State of Good Repair levy was allocated to dams and channels. Based on the sustainable lifecycle funding target identified for dams and channels in this report, the annual lifecycle funding contribution from municipalities for dams and channels should be approximately $567,000 in current dollars. The municipal lifecycle funding target of $567,000 represents an increase of approximately 79% relative to the current (2022) level of municipal funding. Given the magnitude of increase required to achieve a sustainable level of funding, it is recommended that Conservation Halton phases in the increase over the next six years, increasing funding by 15% annually until 2028. After reaching the lifecycle funding target in 2028, funding will increase with capital inflation at 4% per year. The asset management plan and the annual lifecycle funding target are expected to be reviewed again in 2027.

The financial strategy is illustrated graphically in Figure 4-1. The vertical bars show capital expenditures for dams and channels. The solid lines show funding and are stacked, meaning the top line for provincial funding shows total overall funding. The dotted black line shows half the annual lifecycle target. This is the amount that municipalities should be contributing to the State of Good Repair reserve. The other 50% of lifecycle funding required is expected to be covered by provincial WECI funding. The financial analysis assumes a capital inflation rate of 4% and 1% interest earnings on reserves. The illustration shows that this is a sustainable strategy, in that it would allow Conservation Halton to fund all the capital lifecycle expenditures forecast for dams and channels over the next 20 years without the need for additional debt financing and while maintaining reserves.

Figure 4-1: Financial Forecast Summary (Inflated $)



4.4 Budget Process

This final section describes how Conservation Halton produces its capital budgets. Through the annual budget process, engineering staff develop capital budget requests following the guidelines of the Tangible Capital Asset Policy and the Budget Principles. The budget requests are reviewed with the program area and the Finance department to assess the program needs, trends, and priorities. The review includes actual costs incurred in the past for similar projects, as well as current costs to date for projects in progress to determine adequate project funding requirements. Once the requested budget is finalized, financing options are determined based on the optimal funding structure, taking into account the following key sources of financing:

- Grants and other recoveries;
- Reserves;
- Municipal funding; and
- Debentures.

Grants are sought when applicable funding opportunities arise for eligible projects. Grant funding may impact the timing of projects carried out as a result of funding

approval received and the project completion requirements according to the funding agreement.

The State of Good Repair reserve helps smooth the funding requirements for dams and channels capital projects. The balance in this reserve as of December 31, 2021 was $1,175,271.

Municipal funding is apportioned to Conservation Halton's watershed municipalities in accordance with apportionment and current value assessment information provided by the Province of Ontario. Where capital projects benefit more than one watershed municipality, the funding is apportioned to each of the municipalities in the watershed. Where capital projects benefit only one watershed municipality, funding will be apportioned 100% to that municipality.

Since debenture funding creates a burden on the operating budget in future years, this source of financing is carefully considered in funding the capital budget.

Appendices

Appendix A: Technical Appendix

Table A-1: Dam Replacement Cost Assumptions

Dam	Item	Quantity	Unit	Unit Price	Total	Notes
Kelso	Engineering	1	L.S.	10%	$2,236,350	10% of construction cost
	Temp. Works	1	L.S.	15%	$3,354,525	15% of construction cost (dewatering, cofferdam, ground support etc.)
	Backfill	68,500	m^3	$150	$10,275,000	Based on typical cross section (250 sq.m * 274 m long)
	Concrete	1,811	m^3	$1,000	$1,811,000	From Hatch 3D Model
	Excavation	13,700	m^3	$75	$1,027,500	Assume 1:5 cut:fill ratio
	Stilling Basin	1	L.S.	$8,500,000	$8,500,000	Project cost from 2015-2019
	Mechanical	1	L.S.	$395,000	$395,000	Sum from lifecycle replacement activities
	Electrical	1	L.S.	$35,000	$35,000	Sum from lifecycle replacement activities
	Instrumentation	1	L.S.	$100,000	$100,000	Sum from lifecycle replacement activities
	Safety Systems	1	L.S.	$145,000	$145,000	Sum from lifecycle replacement activities
	Control Building	1	L.S.	$75,000	$75,000	Sum from lifecycle replacement activities
	Kelso Subtotal				**$28,000,000**	

Dam	Item	Quantity	Unit	Unit Price	Total	Notes
Hilton Falls	Engineering	1	L.S.	8%	$2,572,320	8% of construction cost
	Temp. Works	1	L.S.	5%	$1,607,700	5% of construction cost
	Grout Curtain	150	stages	$1,500	$225,000	From previous projects
	Backfill	225,000	m^3	$125	$28,125,000	Based on typical cross section (900 sq.m * 250 m long)
	Concrete	1,350	m^3	$1,000	$1,350,000	Assumed to be 75% of Kelso
	Excavation	22,500	m^3	$75	$1,687,500	Assume 1:10 cut fill ratio
	Mechanical	1	L.S.	$490,000	$490,000	Sum from lifecycle replacement activities
	Electrical	1	L.S.	$51,500	$51,500	Sum from lifecycle replacement activities
	Instrumentation	1	L.S.	$100,000	$100,000	Sum from lifecycle replacement activities
	Safety Systems	1	L.S.	$50,000	$50,000	Sum from lifecycle replacement activities
	Control Building	1	L.S.	$75,000	$75,000	Sum from lifecycle replacement activities
	Hilton Falls Subtotal				**$36,000,000**	
Mountsberg	Engineering	1	L.S.	20%	$666,380	20% of construction cost
	Temp. Works	1	L.S.	15%	$499,785	15% of construction cost
	Anchoring	1	L.S.	$1,000,000	$1,000,000	From previous project
	Backfill	4,200	m^3	$250	$1,050,000	Based on typical cross section (60 sq.m * 70 m long)
	Concrete	432	m^3	$2,000	$864,000	Based on typical cross section (6 sq.m * 72 m long)
	Excavation	1,386	m^3	$150	$207,900	Assume 1:3 cut:fill ratio
	Mechanical	1	L.S.	$75,000	$75,000	Sum from lifecycle replacement activities
	Electrical	1	L.S.	$10,000	$10,000	Sum from lifecycle replacement activities
	Instrumentation	1	L.S.	$10,000	$10,000	Sum from lifecycle replacement activities
	Safety Systems	1	L.S.	$40,000	$40,000	Sum from lifecycle replacement activities
	Control Building	1	L.S.	$75,000	$75,000	Sum from lifecycle replacement activities
	Mountsberg Subtotal				**$4,500,000**	

Dam	Item	Quantity	Unit	Unit Price	Total	Notes
Scotch Block	Engineering	1	L.S.	10%	$1,764,500	10% of construction cost
	Temp. Works	1	L.S.	15%	$2,646,750	15% of construction cost
	Backfill	80,000	m^3	$150	$12,000,000	Based on typical cross section (800 sq.m * 100 m long)
	Concrete	2,260	m^3	$1,000	$2,260,000	Assumed to be 125% of Kelso
	Excavation	20,000	m^3	$75	$1,500,000	Assume 1:4 cut:fill ratio
	Mechanical	1	L.S.	$1,400,000	$1,400,000	Sum from lifecycle replacement activities
	Electrical	1	L.S.	$225,000	$225,000	Sum from lifecycle replacement activities
	Instrumentation	1	L.S.	$45,000	$45,000	Sum from lifecycle replacement activities
	Safety Systems	1	L.S.	$65,000	$65,000	Sum from lifecycle replacement activities
	Control Building	1	L.S.	$150,000	$150,000	Sum from lifecycle replacement activities
	Scotch Block Subtotal				**$22,000,000**	
All Dams Total					**$90,500,000**	

Table A-2: Weights for Aggregating Condition of Dam Major Components

Annual Asset Cost	Condition Weight
$0 - $600	0.5
$600 - $1,200	1
$1,200 - $1,800	2
$1,800 - $2,400	3
$2,400 - $3,000	4
$3,000 and over	5

Table A-3: Dam Major Component Weights and Condition Ratings

Dam	Component Category	Description of Major Components	Weight	Condition Rating
Kelso	Civil	Embankment Dam	4	Very Good
		Crest (Paved)	5	Very Good
		Emergency Spillway	2	Very Good
		Reservoir	4	Good
	Structural	Concrete Intake and Culverts (Upstream of Outlet)	5	Good
		Concrete Stilling Basin (Downstream of Outlet)	5	Very Good
		Stoplog Bays	2	Very Good
		3 Cable Guide Rail (Crest)	2	Poor
		Dam Control Building	1	Good
		Gauge Building	0.5	Good
		Intake Handrail	1	Very Good
		Lift Gate Hoist Superstructure (West)	2	Good
		Lift Gate Hoist Superstructure (East)	2	Good
		Stoplog Hoist Superstructure	0.5	Very Good
		Upstream Splash Wall	3	Good
	Mechanical	Stoplogs	1	Very Good
		Stoplog Lifter	0.5	Very Good
		Vertical Wheeled Lift Gate (West)	1	Very Good
		Wire Rope Hoist (West)	1	Very Good
		Vertical Wheeled Lift Gate (East)	1	Very Good
		Wire Rope Hoist (East)	1	Good
		60" Sluice Gate	1	Good
		60" Rotork Actuator and Stem	5	Very Good
	Electrical	Radar Speed Signs	0.5	Very Good
		LED Lighting	0.5	Very Good
		Portable Generator	0.5	Very Good
		Control Panels	0.5	Very Good
		Control Room Heater	0.5	Good
	Instrumentation	Embankment Monitoring	3	Very Good
	Safety Systems	Chain Link Fencing (Spillway Outlet)	1	Very Good
		Chain Link Fencing (Upstream Embankment)	1	Very Good
		Wooden Fencing (Stilling Basin)	0.5	Very Good
		Crest Gates	0.5	Very Good
		Safety Boom	2	Good
		Speed Bumps	0.5	Good
		Signage	0.5	Very Good
		Access Ladders and Safety Systems	1	Very Good
		Kelso Subtotal	**63**	**Very Good**

Dam	Component Category	Description of Major Components	Weight	Condition Rating
Hilton Falls	Civil	Embankment Dam	5	Good
		Crest (Paved)	5	Poor
		Diversion Dyke	2	Very Good
		Upstream Rip Rap	1	Good
		Reservoir	5	Good
	Structural	Concrete Spillway (Downstream of 72" Gate)	5	Good
		Concrete Spillway (Upstream of 72" Gate)	5	Good
		Control Room Access Shaft	1	Good
		3 Cable Guide Rail (Crest)	3	Poor
		Stilling Basin	5	Good
		Dam Control Building	1	Fair
		Diversion Structure	1	Good
		Trashrack Rail System	2	Fair
	Mechanical	96" Trashrack and Winch	1	Fair
		96" Intake Gate	3	Good
		96" Rotork Actuator	5	Fair
		72" Intake Gate	3	Good
		72" Rotork Actuator	5	Very Good
		12" Bypass Valve (Upper)	0.5	Good
		12" Bypass Valve (Lower)	0.5	Good
		Emergency Flap Gate	0.5	Good
	Electrical	High Voltage System	0.5	Very Good
		Control Panels	0.5	Very Good
		LED Lighting	1	Fair
		Portable Generator	0.5	Very Good
		Heaters	0.5	Very Good
	Instrumentation	Embankment Monitoring	4	Good
	Safety Systems	Chain Link Fencing (Spillway Outlet)	0.5	Very Good
		Chain Link Fencing (Upstream Embankment)	0.5	Very Good
		Control Shaft Access Systems	1	Very Good
		Signage	0.5	Very Good
		Hilton Falls Subtotal	**69**	**Good**

Dam	Component Category	Description of Major Components	Weight	Condition Rating
Mountsberg	Civil	Embankment Dam	5	Good
		Reservoir	5	Good
	Structural	Concrete Overflow Weir	5	Good
		Dam Control Building	1	Fair
		Stoplog Hoist Superstructure	0.5	Very Good
	Mechanical	Stoplogs	0.5	Very Good
		48" Sluice Gate	1	Fair
		48" Manual Actuator	1	Fair
		Trashrack	0.5	Very Good
	Electrical	Wind Turbine	0.5	Very Good
		Solar Panels	0.5	Very Good
		Inverter and Batteries	0.5	Very Good
	Instrumentation	Aeration System	0.5	Very Good
	Safety Systems	Chain Link Fencing	1	Very Good
		Safety Boom	1	Good
		Signage	0.5	Very Good
		Mountsberg Subtotal	**24**	**Good**

Dam	Component Category	Description of Major Components	Weight	Condition Rating
Scotch Block	Civil	East Embankment Dam	5	Good
		West Embankment Subdrain System	1	Very Good
		Access Road and Parking Lot	2	Very Good
		Reservoir	5	Good
		Spillway Outlet Rip Rap	1	Good
		36" Gabion Outlet	1	Good
	Structural	Emergency Concrete Spillway	5	Fair
		Dam Control Building (East)	1	Good
		Dam Control Building (West)	1	Good
		Gauge Building	0.5	Good
		36" Spillway (Upstream)	5	Good
		36" Spillway (Downstream)	5	Good
	Mechanical	Obermyer Emergency Spillway Gate	5	Very Good
		Obermeyer Gate Bladder System	5	Good
		36" Sluice Gate (Upstream)	1	Fair
		36" Actuator (Upstream)	3	Good
		36" Sluice Gate (Downstream)	1	Fair
		36" Actuator (Downstream)	3	Good
		12" By-Pass Valve and Actuator	0.5	Poor
		Diesel Fuel Tank	0.5	Very Good
	Electrical	High Voltage System	0.5	Very Good
		Obermyer Emergency Spillway Gate Electrical System	5	Very Good
		East Building Distribution Control Panels	0.5	Very Good
		West Building Distribution Control Panels	0.5	Very Good
		LED Lighting	0.5	Very Good
		Backup Diesel Generator	1	Good
		Heaters	0.5	Very Good
	Instrumentation	Embankment Monitoring	1	Good
	Safety Systems	Chain Link Fencing (Spillway Outlet)	1	Fair
		Chain Link Fencing (Spillway Intake)	1	Fair
		Access Road Gate	0.5	Very Good
		Access Road Fencing	0.5	Very Good
		Safety Boom	1	Good
		Signage	0.5	Very Good
		Scotch Block Subtotal	**65.5**	**Good**
		All Dams Total	**221.5**	**Good**

Table A-4: Dam Major Component Lifecycles

Dam	Category	Description of Major Components	Lifecycle Activity	Activity Years	Activity Cost	Activity Notes
Kelso	Civil	Embankment Dam	Minor Rehab	25, 50	$25,000	Re-grading, toe drain cleanout
			Major Rehab	75	$150,000	Re-grading, infilling
		Crest (Paved)	Replace	25	$154,035	Re-pave
		Emergency Spillway	Minor Rehab	25, 50	$25,000	Re-grading, survey, parking repairs
			Major Rehab	75	$75,000	Re-grading, erosion control, parking repairs
		Reservoir	Rehab	90	$250,000	Dredging, bathymetry, shoreline repairs
	Structural	Concrete Intake and Culverts (Upstream of Outlet)	Minor Rehab	25, 50	$30,000	Minor concrete repair program
			Major Rehab	75	$250,000	Major concrete repair program
		Concrete Stilling Basin (D/S of Outlet)	Minor Rehab	25, 50	$30,000	Minor concrete repair program
			Major Rehab	75	$250,000	Major concrete repair program
		Stoplog Bays	Rehab	25	$30,000	Repaint steel, replace minor components
		3 Cable Guide Rail (Crest)	Replace	50	$75,000	Replace
		Dam Control Building	Rehab	25	$20,000	Repair roof, cladding, services etc.
		Gauge Building	Replace	75	$20,635	Replace
		Intake Handrail	Replace	75	$47,396	Replace
		Lift Gate Hoist Superstructure (West)	Minor Rehab	25, 50	$25,000	Re-paint, minor structural repairs
			Major Rehab	75	$75,000	Re-paint, major structural repairs
		Lift Gate Hoist Superstructure (East)	Minor Rehab	25, 50	$25,000	Re-paint, minor structural repairs
			Major Rehab	75	$75,000	Re-paint, major structural repairs
		Stoplog Hoist Superstructure	Minor Rehab	25, 50	$5,563	Re-paint, minor structural repairs
			Major Rehab	75	$15,000	Re-paint, major structural repairs
		Upstream Splash Wall	Minor Rehab	25, 50	$25,000	Minor concrete repair program
			Major Rehab	75	$100,000	Major concrete repair program including replacement of sections
	Mechanical	Stoplogs	Replace	25	$23,961	Replace
		Stoplog Lifter	Replace	50	$7,242	Replace
		Vertical Wheeled Lift Gate (West)	Rehab	25	$15,000	Re-paint, minor structural repairs
			Replace	75	$62,158	Replace
		Wire Rope Hoist (West)	Minor Rehab	25	$10,000	Re-paint, minor repairs
			Major Rehab	50	$20,719	Re-cable, gearbox rehab
		Vertical Wheeled Lift Gate (East)	Rehab	50	$15,000	Re-paint, minor structural repairs
			Replace	75	$60,000	Replace
		Wire Rope Hoist (East)	Minor Rehab	25	$10,000	Re-paint, minor repairs
			Major Rehab	50	$20,719	Re-cable, gearbox rehab
		60" Sluice Gate	Replace	75	$50,000	Replace
		60" Rotork Actuator and Stem	Rehab	25	$25,000	Re-paint, minor structural repairs
			Replace	50	$165,886	Replace
	Electrical	Radar Speed Signs	Replace	15	$6,216	Replace
		LED Lighting	Replace	25	$11,849	Replace
		Portable Generator	Replace	25	$5,180	Replace
		Control Panels	Replace	50	$9,293	Replace
		Control Room Heater	Replace	50	$1,500	Replace

Dam	Category	Description of Major Components	Lifecycle Activity	Activity Years	Activity Cost	Activity Notes
	Instrumentation	Embankment Monitoring	Rehab	25, 50	$25,000	Calibration, sensor replacement, new installation
			Replace	75	$102,138	Replace
	Safety Systems	Chain Link Fencing (Spillway Outlet)	Replace	25	$28,525	Replace
		Chain Link Fencing (Upstream Embankment)	Replace	25	$17,773	Replace
		Wooden Fencing (Stilling Basin)	Replace	15	$5,705	Replace
		Crest Gates	Replace	50	$5,563	Replace
		Safety Boom	Replace	25	$43,484	Replace
		Speed Bumps	Replace	25	$2,225	Replace
		Signage	Replace	25	$1,185	Replace
		Access Ladders and Safety Systems	Replace	50	$41,471	Replace
Hilton Falls	Civil	Embankment Dam	Minor Rehab	25, 50	$25,000	Re-grading, toe drain cleanout
			Major Rehab	75	$150,000	Re-grading, infilling
		Crest (Paved)	Replace	25	$150,000	Replace
		Diversion Dyke	Minor Rehab	50	$25,000	Re-grading, survey
		Diversion Dyke	Major Rehab	75	$75,000	Re-grading, erosion control
		Upstream Rip Rap	Rehab	50	$25,000	Re-grading, survey
		Reservoir	Rehab	90	$250,000	Dredging, bathymetry, shoreline repairs
	Structural	Concrete Spillway (Downstream of 72" Gate)	Minor Rehab	25	$50,000	Minor concrete repair program
			Minor Rehab	50	$50,000	Minor concrete repair program
			Major Rehab	75	$250,000	Major concrete repair program
		Concrete Spillway (Upstream of 72" Gate)	Minor Rehab	25, 50	$50,000	Minor concrete repair program
			Major Rehab	75	$250,000	Major concrete repair program
		Control Room Access Shaft	Minor Rehab	25, 50	$10,000	Minor concrete repair program
			Major Rehab	75	$50,000	Major concrete repair program
		3 Cable Guide Rail (Crest)	Replace	50	$75,000	Replace
		Stilling Basin	Minor Rehab	25, 50	$30,000	Minor concrete repair program
			Major Rehab	75	$250,000	Major concrete repair program
		Dam Control Building	Rehab	25	$20,000	Repair roof, cladding, services etc.
		Diversion Structure	Minor Rehab	25, 50	$10,000	Minor concrete repair program
			Major Rehab	75	$50,000	Major concrete repair program
		Trashrack Rail System	Minor Rehab	25, 50	$15,000	Re-paint, support repair, minor structural repairs
			Major Rehab	75	$75,000	Re-paint, support repair, major structural repairs
	Mechanical	96" Trashrack and Winch	Rehab	50	$15,000	Re-paint, minor structural repairs
			Replace	75	$50,000	Replace
		96" Intake Gate	Rehab	50	$40,000	Re-paint, minor structural repairs
			Replace	75	$75,000	Replace
		96" Rotork Actuator	Rehab	25	$40,000	Re-paint, minor structural repairs
			Replace	50	$125,000	Replace
		72" Intake Gate	Rehab	50	$40,000	Re-paint, minor structural repairs
			Replace	75	$75,000	Replace
		72" Rotork Actuator	Rehab	25	$40,000	Re-paint, minor structural repairs
			Replace	50	$100,000	Replace

Dam	Category	Description of Major Components	Lifecycle Activity	Activity Years	Activity Cost	Activity Notes
		12" Bypass Valve (Upper)	Rehab	50	$10,000	Re-paint, minor structural repairs
			Replace	75	$25,000	Replace
		12" Bypass Valve (Lower)	Rehab	50	$10,000	Re-paint, minor structural repairs
			Replace	75	$25,000	Replace
		Emergency Flap Gate	Rehab	50	$5,000	Re-paint, minor structural repairs
			Replace	75	$15,000	Replace
	Electrical	High Voltage System	Replace	50	$20,000	Replace
		Control Panels	Replace	50	$10,000	Replace
		LED Lighting	Replace	25	$15,000	Replace
		Portable Generator	Replace	25	$5,000	Replace
		Heaters	Replace	50	$1,500	Replace
	Instrumentation	Embankment Monitoring	Rehab	25, 50	$25,000	Calibration, sensor replacement, new installation
			Replace	75	$100,000	Replace
	Safety Systems	Chain Link Fencing (Spillway Outlet)	Replace	25	$4,450	Replace
		Chain Link Fencing (Upstream Embankment)	Replace	25	$5,924	Replace
		Control Shaft Access Systems	Replace	25	$15,576	Replace
		Signage	Replace	25	$1,185	Replace
Mountsberg	Civil	Embankment Dam	Minor Rehab	25, 50	$25,000	Re-grading, toe drain cleanout
			Major Rehab	75	$150,000	Re-grading, infilling
		Reservoir	Rehab	90	$250,000	Dredging, bathymetry, shoreline repairs
	Structural	Concrete Overflow Weir	Minor Rehab	25, 50	$25,000	Minor concrete repair program
			Major Rehab	75	$669,485	Major concrete repair program
		Dam Control Building	Rehab	25	$20,000	Repair roof, cladding, services etc.
		Stoplog Hoist Superstructure	Minor Rehab	25, 50	$5,000	Re-paint, minor structural repairs
			Major Rehab	75	$12,391	Re-paint, major structural repairs
	Mechanical	Stoplogs	Replace	25	$5,000	Replace
		48" Sluice Gate	Rehab	25	$10,000	Re-paint, minor structural repairs
			Replace	75	$30,000	Replace
		48" Manual Actuator	Rehab	25	$10,000	Re-paint, minor structural repairs
			Replace	50	$20,000	Replace
		Trashrack	Minor Rehab	25, 50	$2,500	Re-paint, minor structural repairs
			Major Rehab	75	$10,000	Re-paint, major structural repairs
	Electrical	Wind Turbine	Replace	15	$1,239	Replace
		Solar Panels	Replace	15	$1,859	Replace
		Inverter and Batteries	Replace	15	$1,859	Replace
	Instrumentation	Aeration System	Replace	25	$5,180	Replace
	Safety Systems	Chain Link Fencing	Replace	25	$18,586	Replace
		Safety Boom	Replace	25	$20,000	Replace
		Signage	Replace	25	$1,185	Replace
Scotch Block	Civil	East Embankment Dam	Minor Rehab	25, 50	$25,000	Re-grading, toe drain cleanout
			Major Rehab	75	$150,000	Re-grading, infilling
		West Embankment Subdrain System	Minor Rehab	25	$15,000	Flush, camera inspection

Dam	Category	Description of Major Components	Lifecycle Activity	Activity Years	Activity Cost	Activity Notes
		Access Road and Parking Lot	Minor Rehab	25, 50	$25,000	Re-grade, material top-off
			Major Rehab	75	$40,000	Re-grading, infilling
		Reservoir	Rehab	90	$250,000	Dredging, bathymetry, shoreline repairs
		Spillway Outlet Rip Rap	Rehab	50	$25,000	Re-grade, material top-off
		36" Gabion Outlet	Rehab	50	$25,000	Top off, repair
	Structural	Emergency Concrete Spillway	Minor Rehab	25, 50	$50,000	Minor concrete repair program
			Major Rehab	75	$250,000	Major concrete repair program
		Dam Control Building (East)	Rehab	25	$15,000	Cladding, roof, doors, windows
		Dam Control Building (West)	Rehab	25	$15,000	Cladding, roof, doors, windows
		Gauge Building	Replace	75	$10,000	Replace
		36" Spillway (Upstream)	Minor Rehab	25, 50	$50,000	Minor concrete repair program
			Major Rehab	75	$150,000	Major concrete repair program
		36" Spillway (Downstream)	Minor Rehab	25, 50	$50,000	Minor concrete repair program
			Major Rehab	75	$150,000	Major concrete repair program
	Mechanical	Obermyer Emergency Spillway Gate	Rehab	25	$50,000	Re-paint, minor structural repairs
			Replace	50	$579,375	Replace
		Obermeyer Gate Bladder System	Rehab	25	$75,000	Fix seals, repair equipment
			Replace	50	$579,375	Replace
		36" Sluice Gate (Upstream)	Rehab	50	$15,000	Re-paint, minor structural repairs
			Replace	75	$30,000	Replace
		36" Actuator (Upstream)	Rehab	25	$15,000	Re-paint, minor structural repairs
			Replace	50	$75,000	Replace
		36" Sluice Gate (Downstream)	Rehab	50	$15,000	Re-paint, minor structural repairs
			Replace	75	$30,000	Replace
		36" Actuator (Downstream)	Rehab	25	$15,000	Re-paint, minor structural repairs
			Replace	50	$75,000	Replace
		12" By-Pass Valve and Actuator	Rehab	50	$10,000	Re-paint, minor structural repairs
			Replace	75	$20,000	Replace
		Diesel Fuel Tank	Replace	50	$5,000	Replace
	Electrical	High Voltage System	Replace	50	$20,000	Replace
		Obermyer Emergency Spillway Gate Electrical System	Replace	50	$144,844	Replace
		East Building Distribution Control Panels	Replace	50	$5,563	Replace
		West Building Distribution Control Panels	Replace	50	$5,563	Replace
		LED Lighting	Replace	25	$12,391	Replace
		Backup Diesel Generator	Rehab	25	$10,000	Minor repairs
			Replace	50	$25,000	Replace
		Heaters	Replace	50	$1,113	Replace
	Instrumentation	Embankment Monitoring	Rehab	25, 50	$7,500	Calibration, sensor replacement, new installation
			Replace	75	$44,503	Replace
	Safety Systems	Chain Link Fencing (Spillway Outlet)	Replace	25	$20,000	Replace
		Chain Link Fencing (Spillway Intake)	Replace	25	$20,000	Replace
		Access Road Gate	Replace	25	$3,194	Replace

Dam	Category	Description of Major Components	Lifecycle Activity	Activity Years	Activity Cost	Activity Notes
		Access Road Fencing	Replace	25	$6,388	Replace
		Safety Boom	Replace	25	$15,000	Replace
		Signage	Replace	25	$1,185	Replace

Table A-5 Capital Budget Forecast (Inflated $)

Description	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Asset Lifecycle Expenditures																				
Dams - Component rehabilitation and replacement	$510,970	$412,941	$412,721	$186,557	$0	$66,118	$129,210	$135,181	$0	$0	$15,113	$8,087	$257,699	$81,150	$19,861	$630,786	$9,839	$10,233	$61,288	$31,256
Dams - Studies	$0	$0	$0	$0	$0	$63,914	$0	$0	$0	$0	$207,234	$0	$0	$133,368	$0	$97,870	$191,263	$400,200	$82,086	$0
Channels - Slab rehabilitation and replacement	$190,000	$158,039	$280,692	$571,332	$1,483,895	$1,396,183	$1,450,525	$1,454,909	$1,790,637	$1,862,667	$1,302,733	$1,354,843	$1,409,036	$1,465,398	$1,524,014	$1,584,974	$1,648,373	$1,714,308	$1,782,881	$1,854,196
Channels - Studies	$0	$0	$0	$0	$46,794	$0	$0	$0	$0	$56,932	$0	$0	$0	$0	$69,267	$0	$0	$0	$0	$84,274
Capital Related																				
Debt financing - Existing debt	$386,051	$374,948	$362,172	$326,358	$280,609	$264,192	$258,997	$254,032	$249,066	$244,101	$222,297	$217,722	$213,146	$208,571	$203,996	$199,420	$194,845	$189,553	$184,856	$177,490
Debt financing - New debt	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Lifecycle Expenditures	$1,087,021	$945,928	$1,055,585	$1,084,247	$1,811,299	$1,790,407	$1,838,732	$1,844,121	$2,039,703	$2,163,701	$1,747,377	$1,580,652	$1,879,882	$1,888,487	$1,817,137	$2,513,051	$2,044,320	$2,314,295	$2,111,110	$2,147,216
Asset Lifecycle Financing																				
Debenture requirements	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Municipal funding - Debt servicing	$386,051	$374,948	$362,172	$326,358	$280,609	$264,192	$258,997	$254,032	$249,066	$244,101	$222,297	$217,722	$213,146	$208,571	$203,996	$199,420	$194,845	$189,553	$184,856	$177,490
Reserve - Watershed Management Capital	$350,485	$285,490	$346,707	$378,944	$765,345	$763,107	$789,868	$795,045	$895,318	$959,800	$762,540	$681,465	$833,368	$839,958	$806,571	$1,156,815	$924,738	$1,062,371	$963,127	$984,863
Provincial funding	$350,485	$285,490	$346,707	$378,944	$765,345	$763,107	$789,868	$795,045	$895,318	$959,800	$762,540	$681,465	$833,368	$839,958	$806,571	$1,156,815	$924,738	$1,062,371	$963,127	$984,863
Total Capital Financing	$1,087,021	$945,928	$1,055,585	$1,084,247	$1,811,299	$1,790,407	$1,838,732	$1,844,121	$2,039,703	$2,163,701	$1,747,377	$1,580,652	$1,879,882	$1,888,487	$1,817,137	$2,513,051	$2,044,320	$2,314,295	$2,111,110	$2,147,216
Total Capital Expenditures less Financing	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

Table A-6 Reserves and Reserve Fund Continuity Schedule

Description	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Opening balance	$1,175,271	$1,164,452	$1,265,726	$1,360,674	$1,486,244	$1,294,292	$1,181,244	$1,131,137	$1,103,761	$1,004,681	$869,818	$964,068	$1,175,969	$1,273,923	$1,403,824	$1,608,156	$1,502,464	$1,670,277	$1,745,307	$1,966,658
SOGR contribution	$316,500	$362,703	$415,651	$476,328	$545,863	$625,548	$716,867	$745,541	$775,363	$806,377	$838,632	$872,178	$907,065	$943,347	$981,081	$1,020,325	$1,061,138	$1,103,583	$1,147,726	$1,193,635
Transfer to capital	$350,485	$285,490	$346,707	$378,944	$765,345	$763,107	$789,868	$795,045	$895,318	$959,800	$762,540	$681,465	$833,368	$839,958	$806,571	$1,156,815	$924,738	$1,062,371	$963,127	$984,863
Interest	$23,166	$24,061	$26,004	$28,187	$27,530	$24,510	$22,895	$22,128	$20,876	$18,559	$18,157	$21,188	$24,256	$26,512	$29,822	$30,798	$31,413	$33,818	$36,752	$41,421
Closing Balance	$1,164,452	$1,265,726	$1,360,674	$1,486,244	$1,294,292	$1,181,244	$1,131,137	$1,103,761	$1,004,681	$869,818	$964,068	$1,175,969	$1,273,923	$1,403,824	$1,608,156	$1,502,464	$1,670,277	$1,745,307	$1,966,658	$2,216,852

Conservation Halton

June 2022

REPORT TO: **Finance & Audit Committee**

REPORT NO: # FA 02 22 02

FROM: Marnie Piggot, Director Finance

DATE: June 9, 2022

SUBJECT: **2023 Preliminary Budget and Forecasts**

Recommendation

That the Finance & Audit Committee **recommends to the Conservation Halton Board of Directors that the 2023 preliminary budget (attached) be approved for budget discussion purposes with funding watershed municipalities.**

Executive Summary

The development of the 2023 preliminary budget is based on Conservation Halton (CH) current budget principles while also reflecting the Programs & Services Inventory format presented earlier this year in accordance with the recent revisions to Conservation Authorities (CA) Act regulations.

The 2023 preliminary budget continues to balance the delivery of core programs and services, with Momentum strategic priorities, inflationary and growth-related pressures. The 2023 preliminary budget also incorporates shifts in priorities as a result of the CA Act regulation changes with the implementation of a new program, Watershed Strategies & Climate Change, along with requirements under the regulations to complete a Watershed-based Resource Management Strategy, Conservation Areas Strategy and Land Inventory.

The 2023 preliminary budget financial amounts are contained in the financial attachment (Appendix B). This report provides an overview of the 2023 preliminary budget, major drivers of the budget increase and details on proposed capital projects. A summary of the funding sources and program expenses in the proposed budget of almost $42.4 million is provided in the following chart.

Budget Summary	2023 Preliminary Budget	2022 Budget	Increase / (Decrease)
Revenue			
Program Revenue	$ 18,713,896	$ 17,154,550	$ 1,559,346
Municipal Funding	11,206,825	10,795,636	411,189
Other Funding & Municipal Special Levies	6,387,525	5,785,373	602,152
Internal Chargeback Recoveries	2,956,477	2,283,751	672,726
Transfers from Reserves	2,321,299	2,570,888	(249,589)
Provincial Funding	796,294	1,601,584	(805,290)
Total Revenues	**$ 42,382,316**	**$ 40,191,782**	**$ 2,190,534**
Expenses			
Corporate Services	$ 7,221,521	$ 6,372,829	$ 848,692
Natural Hazards & Watershed Management	6,200,532	4,773,484	1,427,048
Permitting & Planning	5,115,717	5,067,385	48,332
Conservation Lands & Recreation			
Land Management	1,795,871	1,617,647	178,224
Parks & Recreation	15,623,173	14,385,263	1,237,910
Debt Financing	577,116	620,551	(43,435)
Transfers to Reserves	565,000	505,500	59,500
Capital	5,283,386	6,849,123	(1,565,737)
Total Expenses	**$ 42,382,316**	**$ 40,191,782**	**$ 2,190,534**
Budgeted Surplus	$ -	$ -	$ -

Highlights of the 2023 preliminary budget include:

- The 2023 preliminary budget has increased by $2.2 million over the 2022 budget of $40.2 million. Major drivers of the increase include:
  - $873,000 in total staff salary and benefits costs assuming a 2.5% inflation increase.
  - $602,000 for six new full-time equivalents (FTE) staff positions. Five positions are funded through new funding agreements and increased internal chargeback recoveries. One new FTE is proposed to be funded by a new special municipal levy for the Watershed Strategies & Climate Change program.
  - Estimated additional total compensation increases of $355,000 associated with the compensation review being undertaken in 2022 for implementation in 2023.
  - $754,000 for increased part time and project contract staff that are fully funded by increased program revenues and project grants.
  - $118,000 in increased insurance expenses based on 2022 insurance premiums with $98,000 of that related to the Glen Eden ski operation.

- Municipal funding in the 2023 preliminary budget is $11,206,825. The proposed municipal funding increase is 3.8% or $411,189. The guideline established by Halton Region for the 2022 budget was 3.7% based on 2% inflation. Operating and capital forecasts have been prepared with annual municipal funding increases ranging from 3.7% to 4.4%.

- Consistent with the CA Act Regulations, other municipal funding for Emerald Ash Borer treatment and Flood Plain Mapping are now referenced as Special Levies. A new Special Levy is proposed in the 2023 preliminary budget of $179,000 for staff support and consulting services for the new Watershed Strategies & Climate Change program.

- Municipal State of Good Repair (SOGR) levies are proposed to increase in total by $59,500. The increase includes $46,200 for dams and channels to provide for the municipal funding level to reach the target amount plus inflation by 2028 based on the recently updated Asset Management Plan for Dams and Channels. The target municipal funding has been achieved for facilities in the 2023 budget with the increase of $13,300 in the SOGR levy for buildings.

- Debt financing of $1 million is requested in the 2023 preliminary budget consistent with the 2022 budget forecast for 2023 related to the new Central Works Operations Centre project.

- The Conservation Areas operating surplus in the 2023 preliminary budget of $506,540 is higher than the 2022 budget surplus of $372,118. Revenues are conservatively estimated based on 2021-2022 activity. Revenue increases are offset by increased park expenses for higher credit card charges with most sales now processed online, higher insurance premiums, facility maintenance and part time staff expenses including OMERS pension costs. Starting in 2023, OMERS requires CH to offer OMERS to all employees.

CH staff will be submitting the 2023 preliminary budget to Halton Region for their review and consideration this summer. The final budget presented in the fall will contain revisions related to the compensation review recommendations, updated debt financing charges and apportionment percentages when received. Potential updates to capital projects funded partly through developer contributions are anticipated with updates to the business cases for these projects. A comprehensive Budget & Business Plan document will be prepared for final budget approval in November.

Report

The 2023 preliminary budget summary by operating and capital programs and budget categories is provided in the following chart:

Programs	Operating Budget	Capital Budget	2023 Preliminary Budget	2022 Budget
Watershed Management & Support Services (WMSS)	$ 21,475,757	$ 4,040,273	$ 25,516,030	$ 21,993,616
Conservation Lands & Recreation (Recreation)	$ 15,623,173	$ 1,243,113	$ 16,866,286	$ 18,198,166
Total	**$ 37,098,930**	**$ 5,283,386**	**$ 42,382,316**	**$ 40,191,782**

Inflation has been assumed at 2.5% for the 2023 preliminary budget based on Bank of Canada and Province of Ontario inflation forecasts for 2023. The Bank of Canada aims to keep inflation at 2% beyond 2023.

2023 Preliminary Operating Budget

The operating budget of $37.1 million provides for an investment of $21.5 million in Watershed Management and Support Services (WMSS) programs and an investment of $15.6 million in Conservation Lands & Recreation (Recreation).

Investing in Watershed Management & Support Services

The WMSS 2023 preliminary operating budget totals $21.5 million. WMSS operating expense and funding amounts are detailed in the chart below. The budget increase of $2.5 million is largely funded by program revenue, grants, reserves and internal chargeback recoveries. Municipal operating funding for WMSS programs is proposed to increase by $317,429 for programs and services and by $59,500 to fund increases to the State of Good Repair Levies for dams, channels and facilities.

Watershed Management & Support Services (WMSS)	2023 Preliminary Budget	2022 Budget	Increase / (Decrease)
Operating Expenses:			
Staff Salary & Benefits	$ 15,132,187	$ 13,191,614	$ 1,940,573
Materials & Supplies	1,120,331	1,082,146	38,185
Purchased Services	3,020,608	2,833,184	187,424
Financial	60,130	79,000	(18,870)
Internal Chargebacks	1,000,385	645,401	354,984
Debt Financing Charges	577,116	620,551	(43,435)
Transfer to Reserves - Land Securement	25,000	25,000	-
Transfer to Reserves - SOGR Levy Dams & Channels	362,700	316,500	46,200
Transfer to Reserves - SOGR Levy Buildings	177,300	164,000	13,300
Total Operating Expenses - WMSS	**$ 21,475,757**	**$ 18,957,396**	**$ 2,518,361**
Funding of Operating Expenses:			
Program Revenue	$ 3,578,216	$ 3,192,120	$ 386,096
Provincial (Ministry NDMNRF) - Operating Grant	155,034	155,034	-
Municipal Funding	10,009,102	9,691,673	317,429
Municipal Funding - State of Good Repair Levies Dams & Channels and Buildings	540,000	480,500	59,500
Other Grants & Program Funding	3,978,535	3,038,188	940,347
Internal Chargeback Recoveries	2,884,707	2,206,381	678,326
Transfers from Reserves - Legal, WMSS Stabilization, Water Festival, Stewardship and	330,163	193,500	136,663
Total Operating Funding - WMSS	**$ 21,475,757**	**$ 18,957,396**	**$ 2,518,361**

Staff salary & benefits increases of $1,940,573 in the WMSS operating budget include:

- 5.0 FTE staff changes costing $519,946 that are funded through agreements for Ecological Services and Source Protection, and internal chargeback recoveries through the CH Foundation and parks.
- Increased staff compensation of $601,837 is based on a 2.5% inflationary increase to the staff salary bands and position review changes associated with the 2022 compensation review. Salaries are based on 96% of the top of the salary bands that approximate actual salary levels.
- Estimated compensation review impacts of $284,000.
- Benefit expense increases estimated to cost $101,009; and
- Increased part time staff costs of $433,781 primarily for Partnership Project work that are fully funded by project grants.

Materials & Supplies and Purchased Services

The majority of the changes in these categories are related to increases and shifts between supplies and services for the Partnership Projects planned for 2023. Partnership Projects are fully funded by project grants and internal chargeback recoveries to the projects.

Internal Chargebacks

The increase in internal chargeback expenses of $354,984 includes almost $330,000 Ecology, Landowner Outreach and Restoration estimated staff time charges to the Partnership Projects and recovered through anticipated project grants.

Debt Financing Charges

Debt Financing Charges in the 2023 preliminary operating budget of $577,116 are comprised of municipal debt financing charges of $527,116 and $50,000 for principal and interest payments on the property acquisition loan from the Hamilton Community Foundation (HCF). The HCF loan balance as of December 31, 2021 of $168,588 is anticipated to be repaid by July 2025.

Municipal debt financing charges are based on the amounts in the 2022 budget forecast for 2023 provided by Halton Region staff. Debt financing charges are subject to change when updated by Halton Region staff with the budget submission. Debt financing charges are currently calculated based on interest rates ranging 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 Halton Region loan balance as of December 31, 2021 was $4,831,225.

State of Good Repair (SOGR) Levy and Transfers to Reserves

An increase of $59,500 in the SOGR Levy is attributed to an increase of $46,200 for Dams & Channels to provide for the municipal funding level to reach the target amount plus inflation by 2028. The target municipal funding has been achieved for Facilities in the 2023 budget with the increase of $13,300 in the SOGR levy for Facilities. The State of Good Repair Levy amounts are transferred to the Watershed Management Capital and Building SOGR Reserve to fund future capital works.

Program Revenue

The majority of this revenue increase is related to estimated planning and permit fees based on increased activity since 2020 and projected trends related to the Halton Region allocation program.

Other Grants & Program Funding

The estimated increase in funding through other grants and program funding of $940,357 is primarily related to:

- Partnership Projects planned for 2023 and increased funding of almost $500,000.
- Ecological Services Agreement with Halton Region approved in late 2021 that is providing $253,000 in Planning & Regulations program funding for 2.0 new FTE positions.
- Source Protection program funding through MECP has increased by almost $95,000 for a new staff position and other program work.

Internal Chargeback Recoveries

Internal chargeback recoveries increase of $678,326 includes an increased recovery of Corporate Service staff costs from the parks of $229,400 as well as the recovery of staff costs through Partnership Projects grants and the Conservation Halton Foundation.

Transfer from Reserves

Transfers from reserves to fund operating expenses of $330,163 include the following:

- Estimated legal costs of $100,000 related to Planning & Regulation activities are proposed to continue to be funded by a Transfer from the Legal Reserve.
- A transfer from the WMSS Stabilization Reserve of $142,000 will partly fund the estimated compensation review costs.
- Transfers from the Water Festival, Stewardship & Restoration Reserve total $88,163 to assist with funding the respective program expenses.

Investing in our Parks

The Conservation Lands & Recreation (Recreation) 2023 preliminary operating budget provides for an investment of $15,623,173 into the parks. Operating expenses have increased by $1,237,910 as detailed in the chart below.

Conservation Lands & Recreation (Recreation)	2023 Preliminary Budget	2022 Budget	Increase / (Decrease)
Operating Expenses:			
Staff Salary & Benefits	$ 8,597,746	$ 8,057,964	$ 539,782
Materials & Supplies	1,889,689	1,874,353	15,336
Purchased Services	2,500,498	2,245,528	254,970
Financial	535,200	471,200	64,000
Internal Chargebacks - Corporate Services	1,593,500	1,364,100	229,400
Transfer to Reserve - Operating Surplus	506,540	372,118	134,422
Total Operating Expenses - Conservation Lands & Recreation (Recreation)	**$ 15,623,173**	**$ 14,385,263**	**$ 1,237,910**
Funding of Operating Expenses:			
Program Fees	$ 15,169,680	$ 13,946,430	$ 1,223,250
Municipal Funding - Park Education programs & Outreach	364,723	361,463	3,260
Internal Chargeback Recoveries	71,770	77,370	(5,600)
Transfer from Reserves	17,000	-	17,000
Total Operating Funding - Conservation Lands & Recreation (Recreation)	**$ 15,623,173**	**$ 14,385,263**	**$ 1,237,910**

Staff Salary & Benefits are increasing by $539,782 primarily due to increased part time staff costs of $320,000 including estimated OMERS benefits offerings totalling almost $220,000, staff compensation cost of living and benefit increases amounting to $149,000, and estimated compensation review impacts totalling $71,000.

Internal Chargebacks to the parks recreation programs for support services have increased in the 2023 preliminary operating budget by $229,000 related to support staffing changes and estimated allocation of corporate services time spent on park programs.

Purchased Services increase of $254,970 includes $98,000 related to insurance premium increases, $50,000 related to consulting fees for CA Act and master plan initiatives, $40,000 increase related to WOW bus services returning. Remainder of increases are attributed to increased volume, activity and maintenance in the Parks.

Financial expenses increase of $64,000 is attributed to increased credit card fees and point of sales system fees. These expense increases are more than offset by proposed increased park program fees.

Program fees have been increased by $1,223,250 with the expectation of a return to full park operations. This revenue increase is based on assumed continued growth in park visitation and the potential implementation of fee increases.

2023 Preliminary Capital Budget

The 2023 preliminary capital budget represents an investment of $5.3 million into infrastructure and studies allocated to WMSS programs of $4.0 million and Conservation Areas of $1.2 million.

The capital budget provides funding for the rehabilitation of flood control infrastructure, updating of flood plain mapping, investments in technology upgrades, fleet replacements, development of studies and plans, managing the impacts of Emerald Ash Borer, land management initiatives, infrastructure improvements and the implementation of Watershed Strategies & Climate Change initiatives.

	Capital Projects	2023 Preliminary Budget	2022 Budget	Increase / (Decrease)
WMSS	***Emerald Ash Borer***	850,000	820,000	30,000
	Flood Plain Mapping	550,000	525,000	25,000
	Dams & Channels SOGR Maintenance	420,000	700,970	(280,970)
	Flood Forecasting & Warning Program	115,000	90,000	25,000
	Watershed Strategies & Climate Change	179,000	-	179,000
	Spongy (LDD) Moth Treatment	100,000	-	100,000
	Other Projects	503,273	448,250	55,023
	Facilities Infrastructure			
	Administration Office SOGR & Restoration	225,000	200,000	25,000
	Central Works Operations Centre & Field Office	1,000,000	-	1,000,000
	Digital Transformation			
	IT Infrastructure	98,000	52,000	46,000
	Document Management	-	200,000	(200,000)
	Total WMSS	**4,040,273**	**3,036,220**	**1,004,053**
Parks	***Conservation Lands & Recreation (Recreation)***			
	Facility, Infrastructure & Ski Hill	1,038,000	1,163,000	(125,000)
	Kelso Quarry Park / Area 8	125,000	100,000	25,000
	Fleet replacement	80,113	269,903	(189,790)
	Crawford Lake Boardwalk	-	2,280,000	(2,280,000)
	Total Parks	**1,243,113**	**3,812,903**	**(2,569,790)**
Total Capital		**5,283,386**	**6,849,123**	**(1,565,737)**

Dams & Channels SOGR Maintenance costs of $420,000 are based on staff assessments of capital work priorities according to consulting engineering studies such as dam safety reviews. These costs are assumed to be funded 50% provincially and 50% municipally through the State of Good Repair Levy reserve funding. The overall amount in the 2023 preliminary budget and has been reduced compared to prior budget capital forecasts as a result of estimates in updated Dam Safety Reviews and Channels Study.

Watershed Strategies & Climate Change initiatives of $179,000 in 2023 are related to consulting and staffing requirements. Project expenses for 2023 are to be funded via a special municipal levy transfer.

Facilities Infrastructure capital work of $1,225,000 will fund state of good repair maintenance and office space renovations. Office renovations work will continue to ramp up through 2023. The Central Work Operations Centre is proposed to begin in 2023 with completion in 2024. Design work of the new facility is currently underway.

Parks Facility, Infrastructure & Ski Hill costs of $1,038,000 include $525,000 for ski hill improvements and $513,000 for facilities improvements.

Sources of Capital Budget Funding

A summary of the 2023 proposed capital funding sources is provided in the chart below:

Capital Budget Funding	2023 Preliminary Budget	2022 Budget	Increase / (Decrease)
WMSS:			
Provincial Funding - Dams & Channels	$ 210,000	$ 350,485	$ (140,485)
Municipal Funding	$ 293,000	$ 262,000	$ 31,000
Municipal Special Levy - EAB	$ 834,000	$ 804,000	$ 30,000
Municipal Special Levy - Flood Plain Mapping	$ 550,000	$ 525,000	$ 25,000
Municipal Funding Other - Watershed Strategies & Climate Change	$ 179,000	$ -	$ 179,000
Municipal Debt Financing	$ 1,000,000	$ -	$ 1,000,000
Other Funding Grants and Program Funding	$ 243,250	$ 250,250	$ (7,000)
Transfer from Reserves	$ 731,023	$ 844,485	$ (113,462)
Conservation Lands & Recreation (Recreation):			
Transfer from Reserves	$ 1,243,113	$ 1,532,903	$ (289,790)
Other Funding Grants and Program Funding	$ -	$ 1,671,924	$(1,671,924)
Developer Contributions	$ -	$ 608,076	$ (608,076)
Total Capital Funding	**$ 5,283,386**	**$ 6,849,123**	**$(1,565,737)**

Special Levies for Emerald Ash Borer (EAB) treatment and Flood Plain Mapping are consistent with the business plans submitted to Halton Region for these projects.

Reserve Transfers

The summary below provides the recommended transfers to and from reserves in the 2023 preliminary budget and the resulting projected reserve balances at December 31, 2023. A reserve continuity schedule with reserve balances to 2032 is also provided in the financial attachment.

Conservation Halton Reserves	Reserves Projected Balance Dec. 31, 2022	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, 2023
Watershed Management & Support Services							
Vehicle and Equipment	$ 610,901				$ (164,023)		$ 446,878
Building	116,872				(100,000)		16,872
Building - State of Good Repair	364,820			177,300	(150,000)		392,120
Watershed Management Capital - Municipal Funds and Self-Generated Funds	1,141,285			362,700	(210,000)		1,293,985
Watershed Management & Support Services Stabilizatior	1,319,212					(142,000)	1,177,212
Capital Projects - Debt Financing Charges	471,596						471,596
Digital Transformation	78,400				-		78,400
Legal - Planning & Watershed Management	941,995					(100,000)	841,995
Legal - Corporate	200,000						200,000
Water Festival	178,911				-	(10,000)	168,911
Land Securement	113,739	25,000					138,739
Property Management	1,084,043				(100,000)		984,043
Stewardship and Restoration	345,551				(7,000)	(95,163)	243,388
Conservation Areas							
Capital	1,468,906		506,540		(1,243,113)		732,333
Stabilization	1,146,490						1,146,490
Total Reserves	**$ 9,582,721**	**$ 25,000**	**$ 506,540**	**$ 540,000**	**$ (1,974,136)**	**$ (347,163)**	**$ 8,332,962**

Municipal Funding

Base municipal funding in the 2023 preliminary budget totals almost $11.2 million. The $411,189 increase requested in municipal funding represents a 3.8% increase over the amount requested in 2022. The Region of Halton budget guideline established for the 2022 budget was 3.7% based on 2% inflation. There is potential for the guideline to be slightly higher than the previous guideline with increased inflation anticipated to be higher for 2023. The guideline for the 2023 budget is anticipated to be received in July 2022.

Municipal Funding	2023 Preliminary Municipal Funding	2022 Municipal Funding	Increase / (Decrease)
Operating	$ 10,373,825	$ 10,053,136	3.2%
Capital	293,000	262,000	11.8%
	10,666,825	10,315,136	3.4%
Add: State of Good Repair (SOGR) Levy - Dams & Channels, Buildings	540,000	480,500	12.4%
Total Municipal Funding	**$ 11,206,825**	**$ 10,795,636**	**3.8%**

Base municipal funding continues to be less than 30% of funding sources in the budget. The municipal funding increase included in the 2022 budget forecast for 2023 was 3.6%. A municipal funding forecast is provided in the financial attachment with annual municipal funding increases ranging from 3.7% to 4.4%.

2023 Preliminary Budget and Operating Forecast 2024-2032

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 that reflect future growth and maintaining program service levels. Program service level reviews are completed annually as part of the budget process to reflect service level changes.
- Compensation and other expenses in the forecast have been assumed to increase annually at the estimated rate of inflation of 2.0%.
- Program revenues for Watershed Management and Support Services program are assumed to increase annually by inflation and increase 3.5% annually for the parks.

The operating forecast includes the estimated costs of servicing existing debt and new debt financing for anticipated capital projects for the 50% municipal portion of dams and channels capital projects and for major facility projects proposed at the Administration Office and Operations Centre. The estimated debt financing charges included in the operating forecast related to municipal debt financing have been provided by Halton Region staff for the 2022 budget forecast and are subject to revision.

2023 Preliminary Budget and Capital Forecast 2024-2032

The development of the capital budget forecast and overall financing strategy considers the following: 1) strategic initiatives in Conservation Halton's strategic plan Momentum; 2) capital priorities identified in Asset Management Plans; 3) 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 CH's infrastructure while ensuring long-term fiscal sustainability.

The largest portions of the Watershed Management and Support Services capital budgets are financing of the operations centre along with dams and channels. The operations centre capital costs are debt financed and forecasted over 2023-24, totalling $2.5M. Dams and channels capital projects are based on information prepared by staff. Dams and channels capital projects are 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 approved through a grant application process.

Conservation Lands & Recreation (Recreation) capital projects in the forecast continue to include three projects totalling approximately $24 million based on business cases previously provided to the Board. The capital projects are related to recreation centres along with water distribution and sewer collection systems. Staff are proceeding with assessing park operations and changing visitor demands to develop updated business cases to ensure sustainable capital investments in these projects, while leveraging available infrastructure grant funding.

The strategic plan initiatives included in the capital forecast will enable CH to invest in innovation and technology to continue to modernize operations, streamline service delivery and improve resource management.

Impact on Strategic Goals

This report supports the Momentum priority of Organizational Sustainability.

Financial Impact

Conservation Halton staff have developed a preliminary budget for 2023 with consideration of current fiscal pressures and the need to balance these pressures with providing core services in a growing watershed and meeting strategic plan objectives.

The 2023 preliminary budget addresses increased costs through operational efficiencies and continuous improvements and includes an increase of 3.8% in base municipal funding. A new special levy for Watershed Strategies & Climate Change of $179,000 is also proposed in the 2023 budget and forecast.

The proposed 2023 preliminary budget continues to provide for investments in programs to enhance service delivery, digital transformation initiatives, watershed planning work, greenspace and property management initiatives, floodplain mapping, flood forecasting, and improved user experiences at our parks.

Signed & respectfully submitted:

Marnie Piggot
Director, Finance

Approved for circulation:

Hassaan Basit
President & CEO/Secretary-Treasurer

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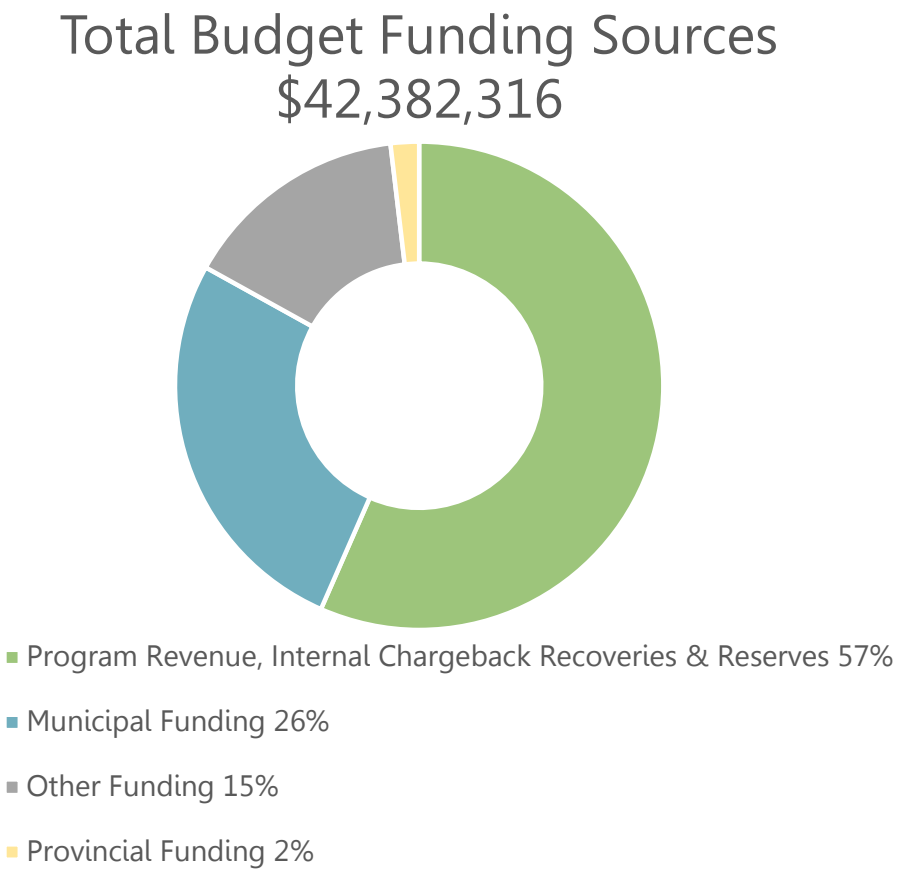
2023 PRELIMINARY BUDGET

Conservation Halton

TABLE OF CONTENTS

2023 PRELIMINARY BUDGET SUMMARY



Operating Budget	**2023 Budget**	**2022 Budget**
Corporate Services	7,221,521	6,372,829
Natural Hazards & Watershed Management	6,200,532	4,773,484
Permitting & Planning	5,115,717	5,067,385
Conservation Lands & Recreation (Land Mgmt)	1,795,871	1,617,647
Debt Financing	577,116	620,551
Reserves	25,000	25,000
Conservation Lands & Recreation (Recreation)	15,623,173	14,385,263
State of Good Repair Levy - Dam & Channels; Building	540,000	480,500
	37,098,930	33,342,659

Capital Budget	**2023 Budget**	**2022 Budget**
Corporate Services	1,542,023	616,000
Natural Hazards & Watershed Management	848,250	950,220
Permitting & Planning	550,000	525,000
Conservation Lands & Recreation (Land Mgmt)	1,100,000	945,000
Conservation Lands & Recreation (Recreation)	1,243,113	3,812,903
	5,283,386	6,849,123

Total Operating & Capital Budget	**$ 42,382,316**	**$ 40,191,782**

2023 PRELIMINARY **OPERATING BUDGET**

WATERSHED MANAGEMENT & SUPPORT SERVICES

2023 PRELIMINARY OPERATING BUDGET

	Description	% Increase (decrease) over PY Budget	2021 Actual	2022 Budget Expenses	2023 Budget Expenses	2023 Budget Funding Sources					
						Program Revenue	Provincial Funding	Other (Grants, Sp. Project, Debt financing)	Internal Chargeback Recovery (CHF, SPP, CAP, Cons. Areas)	Reserve Funding	Municipal Levy & Funding
	WATERSHED MANAGEMENT & SUPPORT SERVICES (WMSS) PROGRAMS										
1	**CORPORATE SERVICES**										
	Office of President & CEO		655,952	711,907	753,561				23,600		729,961
	Conservation Halton Foundation Administration		163,179	153,015	270,781				153,000		117,781
	Finance		730,812	779,944	853,517	128,500			262,600		462,417
	Fleet Operations		165,921	160,589	201,940						201,940
	General Corporate Services		22,723	-	284,000					142,000	142,000
	Human Resources		633,230	747,866	768,678				221,800	-	546,878
	Marketing and Communications		612,952	809,860	904,754				361,000	10,000	533,754
	Office of Chief Operating Officer (COO)										
	Administration & Procurement		291,773	299,847	490,045				118,200		371,845
	Information Technology		455,697	477,979	513,583				65,700		447,883
	Geographical Information Systems (GIS)		420,795	526,918	565,891	6,500					559,391
	Risk & Health		762,301	788,507	666,803				201,900		464,903
	Administration Office Facility		165,004	199,840	192,249						192,249
	Project Management		423,974	434,469	467,393			50,000	119,400		297,993
	Construction		262,283	282,088	288,326				52,700		235,626
		13.3%	5,766,596	6,372,829	7,221,521	135,000	-	50,000	1,579,900	152,000	5,304,621

WATERSHED MANAGEMENT & SUPPORT SERVICES

2023 PRELIMINARY OPERATING BUDGET

Description	% Increase (decrease) over PY Budget	2021 Actual	2022 Budget Expenses	2023 Budget Expenses	2023 Budget Funding Sources					
					Program Revenue	Provincial Funding	Other (Grants, Sp. Project, Debt financing)	Internal Chargeback Recovery (CHF, SPP, CAP, Cons. Areas)	Reserve Funding	Municipal Levy & Funding
WATERSHED MANAGEMENT & SUPPORT SERVICES (WMSS) PROGRAMS										
2 NATURAL HAZARDS & WATERSHED MANAGEMENT										
Flood Forecasting & Operations		526,929	608,217	592,314		155,034	10,000	15,000		412,280
Watershed Strategies & Climate Change										
Watershed Strategies & Climate Change Administration		216,551	100,000	473,553				18,000	100,000	355,553
Source Protection		246,174	211,141	306,260		306,260		-		-
Science & Partnerships										
Monitoring Ecology		643,574	630,848	696,776	14,716			55,884		626,176
Landowner Outreach & Restoration (prev. Stewardship)		671,898	619,394	752,222	62,500		26,580	245,110	47,500	370,532
Hamilton Harbour Remedial Action Plan (HHRAP)		331,751	289,092	307,438			318,198			(10,760)
Partnership Projects		864,662	350,030	865,680			865,680			-
Restoration & Conservation										
Restoration		428,209	486,395	744,411			18,000	595,563		130,848
Partnership Projects		581,583	1,478,367	1,461,878			1,431,215		30,663	-
	29.9%	4,511,331	4,773,484	6,200,532	77,216	461,294	2,669,673	929,557	178,163	1,884,629

WATERSHED MANAGEMENT & SUPPORT SERVICES

2023 PRELIMINARY OPERATING BUDGET

	Description	% Increase (decrease) over PY Budget	2021 Actual	2022 Budget Expenses	2023 Budget Expenses	Program Revenue	Provincial Funding	Other (Grants, Sp. Project, Debt financing)	Internal Chargeback Recovery (CHF, SPP, CAP, Cons. Areas)	Reserve Funding	Municipal Levy & Funding
	WATERSHED MANAGEMENT & SUPPORT SERVICES (WMSS) PROGRAMS										
3	**PERMITTING & PLANNING**										
	Planning & Regulations		4,647,074	4,310,991	4,347,860	3,208,000		252,832	30,750	-	856,278
	Floodplain Mapping		241,791	246,492	252,959	-			-		252,959
	Regional Infrastructure Team (RIT)		421,261	509,902	514,898			527,770			(12,872)
		1.0%	5,310,126	5,067,385	5,115,717	3,208,000	-	780,602	30,750	-	1,096,365
4	**CONSERVATION LANDS & RECREATION (Land Management)**										
	Property Management		51,346	196,890	324,128	38,000	125,000		52,700		108,428
	Security		426,898	449,070	472,880				181,800		291,080
	Forestry		918,355	971,687	998,863	120,000		47,000	110,000		721,863
		11.0%	1,396,600	1,617,647	1,795,871	158,000	125,000	47,000	344,500	-	1,121,371
5	**DEBT FINANCING CHARGES**	(7.0%)	573,213	620,551	577,116						577,116
	TRANSFER TO RESERVE - VEHICLE & EQUIPMENT		-	-	-						-
6	**TRANSFER TO RESERVES - WMSS STABILIZATION, PROPERTY MANAGEMENT, STEWARDSHIP AND RESTORATION; ALLOCATED SURPLUS**		1,727,623	-	-						-
7	**TRANSFER TO RESERVES - STATE OF GOOD REPAIR (SOGR) LEVY**	12.4%	478,500	480,500	540,000						540,000
8	**TRANSFER TO RESERVE - LAND SECUREMENT**	0.0%	25,000	25,000	25,000						25,000
	TOTAL OPERATING WATERSHED MGMT & SUPPORT SERVICES (WMSS)	13.3%	**19,788,988**	**18,957,396**	**21,475,757**	**3,578,216**	**586,294**	**3,547,275**	**2,884,707**	**330,163**	**10,549,102**

CONSERVATION AREAS

2023 PRELIMINAY OPERATING BUDGET

Description	% Increase (decrease) over PY Budget	2021 Actual	2022 Budget Expenses	2023 Budget Expenses	2023 Budget Funding Sources					
					Program Revenue	Provincial Funding	Other (Grants, Sp. Project, Debt financing)	Internal Chargeback Recovery (CHF, SPP, CAP, Cons. Areas)	Reserve Funding	Municipal Levy & Funding
CONSERVATION LANDS & RECREATION (Recreation)										
Parks & Recreation										
Conservation Areas Administration		1,527,987	1,466,508	1,868,305	1,425,000			71,770		
Fleet Operations		135,396	117,090	124,590						
Kelso/Glen Eden		5,497,443	8,153,133	8,455,932	10,422,250					
Crawford Lake / Mountsberg / Robert Edmondson		1,780,308	2,026,675	2,171,622	1,895,500		-			240,000
Rattlesnake Point / Hilton Falls / Mount Nemo		480,289	559,896	585,531	1,251,500					
Outreach		198,990	325,743	317,153	125,430		50,000	-	17,000	124,723
Transfer Surplus to Conservation Area reserves		(270,078)	372,118	506,540						
Subtotal Conservation Lands & Recreation (Recreation) - Operating before Internal Chargeback - Corporate Services	7.7%	9,350,334	13,021,163	14,029,673	15,119,680	-	50,000	71,770	17,000	364,723
Internal Chargeback - Corporate Services	16.8%	1,049,500	1,364,100	1,593,500						
TOTAL OPERATING CONSERVATION LANDS & RECREATION (Recreation)	8.6%	**10,399,834**	**14,385,263**	**15,623,173**	**15,119,680**	**-**	**50,000**	**71,770**	**17,000**	**364,723**

2023 PRELIMINARY **CAPITAL BUDGET**

2023 PRELIMINARY **CAPITAL BUDGET** SUMMARY

	Description	% Increase (decrease) over PY Budget	2021 Actual	2022 Budget Expenses	2023 Budget Expenses	2023 Budget Funding Sources					
						Program Revenue	Provincial Funding	Other (Grants, Sp. Project, Debt financing)	Internal Chargeback Recovery (CHF, SPP, CAP, Cons. Areas)	Reserve Funding	Municipal Levy & Funding
	CAPITAL										
10a	**Capital - Watershed Management & Support Services (WMSS)**										
	Corporate Services										
	Asset Management Plan		2,621	40,000	50,000					50,000	-
	Compensation review		-	30,000	-						-
	Program Rates & Fees Review		-	-	30,000						30,000
	GIS Data		10,722	-	-						-
	IT Infrastructure		117,470	52,000	98,000						98,000
	Digital Transformation		-	200,000	-					-	-
	Website Upgrade		58,969	-	-					-	-
	Administration Office Renovations		-	100,000	100,000					100,000	-
	Central Works Operations Centre & Field Office		-	-	1,000,000			1,000,000			-
	Facilities - State of Good Repair		66,212	100,000	100,000					100,000	-
	Fleet Management		47,045	94,000	164,023					164,023	-

2023 PRELIMINARY **CAPITAL BUDGET** SUMMARY

	Description	% Increase (decrease) over PY Budget	2021 Actual	2022 Budget Expenses	2023 Budget Expenses	2023 Budget Funding Sources: Program Revenue	Provincial Funding	Other (Grants, Sp. Project, Debt financing)	Internal Chargeback Recovery (CHF, SPP, CAP, Cons. Areas)	Reserve Funding	Municipal Levy & Funding
	CAPITAL										
10a	**Capital - Watershed Management & Support Services (WMSS)**										
	Natural Hazards & Watershed Management										
	Dams & Channels SOGR Maintenance		1,300,875	700,970	420,000		210,000	-		210,000	-
	Flood Forecasting & Warning Program		25,663	90,000	115,000						115,000
	Watershed Planning		-	55,000	-			-			-
	Watershed Strategies & Climate Change		-	-	179,000			179,000			-
	Roots Ridge Aquisition		-	61,250	-						
	Roots Ridge Restoration		-	-	73,100			73,100			
	Fuciarelli Restoration		-	43,000	36,150			29,150		7,000	
	Speyside Weir		-	-	25,000			25,000			
	Permitting & Planning										
	Flood Plain Mapping Update		389,428	525,000	550,000			550,000			-
	Conservation Lands & Recreation (Land Management)										-
	Emerald Ash Borer		772,225	820,000	850,000	16,000		834,000			-
	Property Management Projects		-	25,000	50,000						50,000
	Spongy Moth (LDD Moth) Management		60,473	-	100,000					100,000	-
	Other Foundation Funded Projects		-	100,000	100,000			100,000			-
	TOTAL CAPITAL WMSS	33.1%	2,851,703	3,036,220	4,040,273	16,000	210,000	2,790,250	-	731,023	293,000

2023 PRELIMINARY **CAPITAL BUDGET** SUMMARY

	Description	% Increase (decrease) over PY Budget	2021 Actual	2022 Budget Expenses	2023 Budget Expenses	2023 Budget Funding Sources: Program Revenue	Provincial Funding	Other (Grants, Sp. Project, Debt financing)	Internal Chargeback Recovery (CHF, SPP, CAP, Cons. Areas)	Reserve Funding	Municipal Levy & Funding
	CAPITAL										
10b	**Capital - Conservation Lands & Recreation (Recreation)**										
	Skihill Improvements		249,051	950,000	525,000					525,000	-
	Facility Major Maintenance & IT Infrastructure		760,495	213,000	513,000					513,000	-
	Fleet replacement		60,799	269,903	80,113					80,113	-
	Developer Contribution Projects										
	-Crawford Lake Boardwalk		-	2,280,000	-		-	-		-	-
	-Kelso Quarry Park / Area 8		-	100,000	125,000					125,000	-
	TOTAL CAPITAL CONSERVATION LANDS & RECREATION (Recreation)	(67.4%)	1,070,344	3,812,903	1,243,113	-	-	-	-	1,243,113	-
	TOTAL CAPITAL PROJECTS	(22.9%)	**3,922,047**	**6,849,123**	**5,283,386**	**16,000**	**210,000**	**2,790,250**	**-**	**1,974,136**	**293,000**

2023 PRELIMINARY **OPERATING BUDGET & FORECAST**

2024 - 2032

FORECAST 2024 - 2032

2023 PRELIMINARY OPERATING BUDGET

Conservation Halton WMSS Operating Expenditures	Ten Year Operating Expenditures and Funding Budget & Forecast Watershed Management & Support Services (WMSS)									
	2023 Preliminary	2024	2025	2026	2027	2028	2029	2030	2031	2032
Salaries & Benefits										
Balance, beginning of year	13,191,614	15,132,187	15,648,187	16,176,187	16,719,187	17,277,187	17,851,187	18,442,187	19,049,187	19,674,187
Staffing changes (2023 5.0 FTE increase; 2 FTE 2024-2032)	519,946	188,000	192,000	196,000	200,000	204,000	208,000	212,000	216,000	220,000
Part time staff increases	433,781									
Compensation review estimated increase	284,000									
Compensation Increases (2023 2.5%, 2024-32 2% inflation; 96% of range)	601,837	238,000	246,000	254,000	262,000	271,000	280,000	289,000	299,000	308,000
Increase in benefits (2022 5%; 2023-2031 2% inflation)	101,009	90,000	90,000	93,000	96,000	99,000	103,000	106,000	110,000	113,000
Balance, end of year	**15,132,187**	**15,648,187**	**16,176,187**	**16,719,187**	**17,277,187**	**17,851,187**	**18,442,187**	**19,049,187**	**19,674,187**	**20,315,187**
Materials & Supplies										
Balance, beginning of year	1,082,146	1,120,331	1,142,731	1,165,631	1,188,931	1,212,731	1,237,031	1,261,731	1,286,931	1,312,631
Science & Partnerships program materials	148,968									
Project Management Office (PMO) program materials	(108,343)									
General decrease and increases (Assumed 2022-2031 2% inflation)	(2,440)	22,400	22,900	23,300	23,800	24,300	24,700	25,200	25,700	26,300
Balance, end of year	**1,120,331**	**1,142,731**	**1,165,631**	**1,188,931**	**1,212,731**	**1,237,031**	**1,261,731**	**1,286,931**	**1,312,631**	**1,338,931**

FORECAST 2024 - 2032

2023 PRELIMINARY OPERATING BUDGET

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

Conservation Halton WMSS Operating Expenditures	2023 Preliminary	2024	2025	2026	2027	2028	2029	2030	2031	2032
Purchased Services										
Balance, beginning of year	2,833,184	3,020,608	3,080,608	3,142,608	3,205,608	3,269,608	3,334,608	3,401,608	3,469,608	3,538,608
Risk& Health - insurance increase	20,000									
IT Cybersecurity recommendations	30,000									
Science & Partnerships - HHRAP and Partnership Projects services	229,641									
Project Management Office (PMO) - Restoration Partnership Projects	(85,850)									
General increases (decreases) (Assumed 2023-2032 2% inflation)	(6,367)	60,000	62,000	63,000	64,000	65,000	67,000	68,000	69,000	71,000
Balance, end of year	**3,020,608**	**3,080,608**	**3,142,608**	**3,205,608**	**3,269,608**	**3,334,608**	**3,401,608**	**3,469,608**	**3,538,608**	**3,609,608**
Financial										
Balance, beginning of year	79,000	60,130	61,330	62,530	63,830	65,130	66,430	67,730	69,130	70,530
General increases (Decr. Copier leases; 2023-2032 Assumed 2.0% inflation)	(18,870)	1,200	1,200	1,300	1,300	1,300	1,300	1,400	1,400	1,400
Balance, end of year	**60,130**	**61,330**	**62,530**	**63,830**	**65,130**	**66,430**	**67,730**	**69,130**	**70,530**	**71,930**
Internal Chargebacks										
Balance, beginning of year	645,401	1,000,385	1,020,393	1,040,801	1,061,617	1,082,849	1,104,506	1,126,596	1,149,128	1,172,111
General increases	354,984	20,008	20,408	20,816	21,232	21,657	22,090	22,532	22,983	23,442
Balance, end of year	**1,000,385**	**1,020,393**	**1,040,801**	**1,061,617**	**1,082,849**	**1,104,506**	**1,126,596**	**1,149,128**	**1,172,111**	**1,195,553**

FORECAST 2024 - 2032

2023 PRELIMINARY OPERATING BUDGET

Conservation Halton WMSS Operating Expenditures	Ten Year Operating Expenditures and Funding Budget & Forecast Watershed Management & Support Services (WMSS)									
	2023 Preliminary	2024	2025	2026	2027	2028	2029	2030	2031	2032
Debt Financing Charges (Hamilton Community Fdn & Halton Region)										
Balance, beginning of year	620,551	577,116	643,857	636,408	530,977	501,857	491,592	481,847	472,102	462,357
Decrease in debt financing charges - Ham. Comm. Foundation	-	-	(25,000)	(25,000)	-	-	-	-	-	-
Increase/ (decrease) in debt financing charges - Halton Region	(43,435)	66,741	17,551	(80,431)	(29,120)	(10,265)	(9,745)	(9,745)	(9,745)	-
Total Debt Financing Charges	**577,116**	**643,857**	**636,408**	**530,977**	**501,857**	**491,592**	**481,847**	**472,102**	**462,357**	**462,357**
Transfer to Reserves - State of Good Repair Levy (Dams & Channels)	362,700	415,700	476,300	545,900	625,500	716,900	745,500	775,400	806,400	838,600
Transfer to Reserves - State of Good Repair Levy (Buildings)	177,300	183,900	190,700	197,800	205,100	212,700	220,600	228,800	237,300	246,100
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	-	-	-	-	-	-	100,000	125,000	200,000	150,000
Total Operating Expenses - WMSS	**21,475,757**	**22,221,706**	**22,916,165**	**23,538,850**	**24,264,962**	**25,039,954**	**25,872,799**	**26,650,286**	**27,499,124**	**28,253,266**
-										
Funding of Operating Expenditures										
Program Revenue	3,578,216	3,757,100	3,945,000	4,023,900	4,104,400	4,309,600	4,395,800	4,483,700	4,573,400	4,664,900
Ministry of Natural Resources & Forestry - Operating 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)	10,373,825	10,898,889	11,306,989	11,670,163	12,092,416	12,424,204	12,992,302	13,499,104	14,071,121	14,542,010
Municipal State of Good Repair Levies - Dams & Channels and Buildings	540,000	599,600	667,000	743,700	830,600	929,600	966,100	1,004,200	1,043,700	1,084,700
Other Grants & Program Funding	3,978,535	4,055,600	4,134,200	4,214,400	4,296,200	4,379,500	4,464,700	4,551,500	4,640,000	4,730,300
Internal Chargeback Recoveries	2,519,984	2,625,483	2,677,942	2,731,653	2,786,312	2,842,016	2,898,863	2,956,748	3,015,869	3,076,322
Transfers from Reserves - Legal, WMSS Stabilization, Water Festival, Stewardship and Restoration	330,163	130,000	30,000	-	-	-	-	-	-	-
Total Operating Funding - WMSS	**21,475,757**	**22,221,706**	**22,916,165**	**23,538,850**	**24,264,962**	**25,039,954**	**25,872,799**	**26,650,286**	**27,499,124**	**28,253,266**

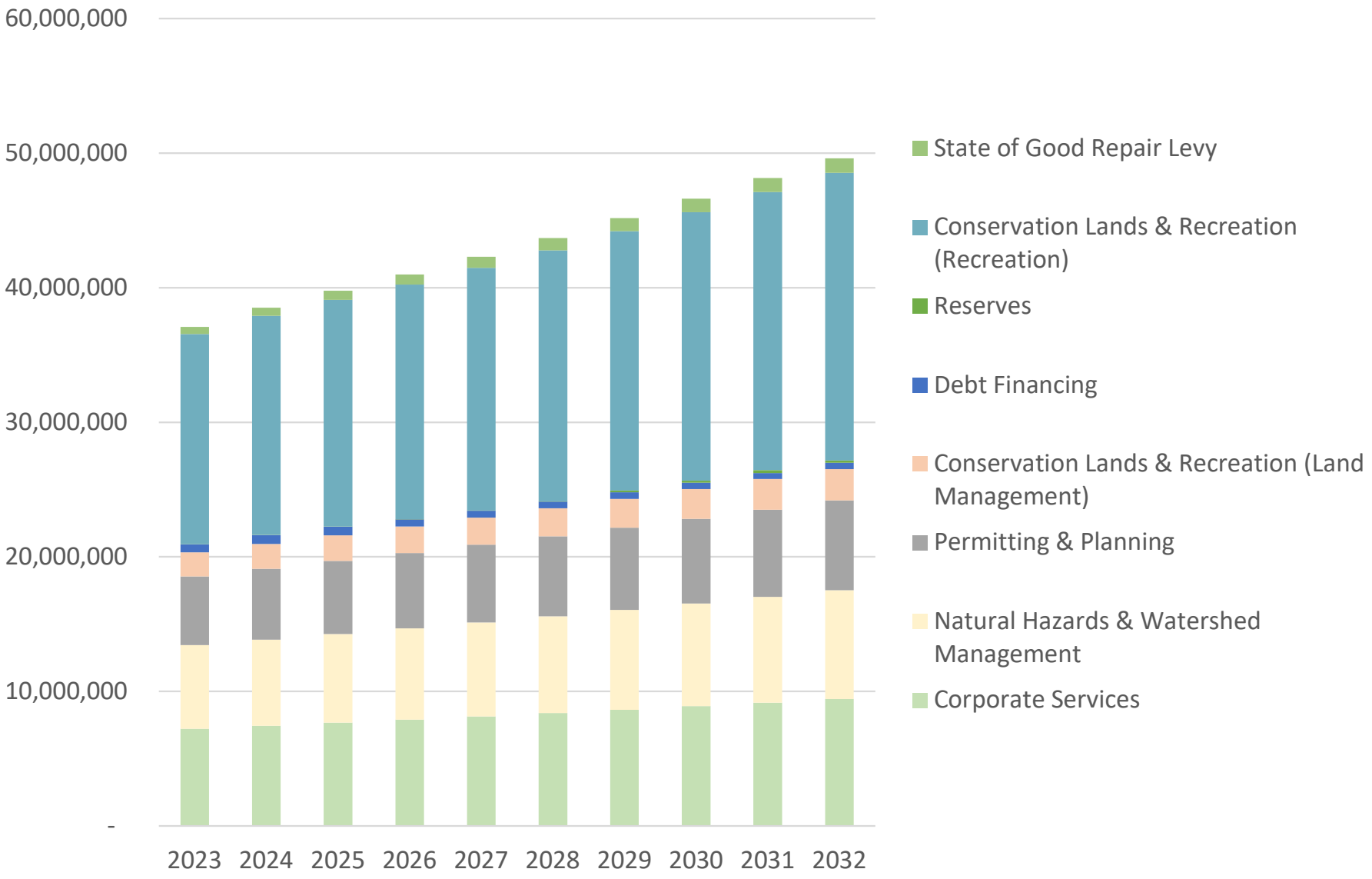
FORECAST 2024 - 2032

2023 PRELIMINARY OPERATING BUDGET

Conservation Halton Conservation Lands & Recreation (Recreation)	Ten Year Operating Expenditures and Funding Budget & Forecast - Conservation Lands & Recreation (Recreation)									
	2023 Preliminary	2024	2025	2026	2027	2028	2029	2030	2031	2032
Salaries & Benefits	8,597,746	8,769,701	8,945,095	9,123,997	9,306,477	9,632,203	9,969,331	10,318,257	10,679,396	11,053,175
Materials & Supplies	1,889,689	1,927,483	1,966,032	2,005,353	2,045,460	2,117,051	2,191,148	2,267,838	2,347,213	2,429,365
Purchased Services	2,500,498	2,550,508	2,601,518	2,653,548	2,706,619	2,801,351	2,899,398	3,000,877	3,105,908	3,214,615
Financial	535,200	545,904	556,822	567,959	579,318	599,594	620,580	642,300	664,780	688,048
Internal Chargebacks - Corporate Services	1,593,500	1,665,400	1,698,700	1,732,700	1,767,400	1,802,700	1,838,800	1,875,600	1,913,100	1,951,400
Transfer to Reserve - Operating Surplus	506,540	840,548	1,092,498	1,357,682	1,636,668	1,710,575	1,787,305	1,867,082	1,950,032	2,036,187
Total Operating Expenses - Conservation Lands & Recreation (Recreation)	**15,623,173**	**16,299,544**	**16,860,666**	**17,441,239**	**18,041,942**	**18,663,474**	**19,306,562**	**19,971,955**	**20,660,429**	**21,372,790**
Operating Funding - Conservation Areas										
Program Fees	15,169,680	15,854,321	16,406,538	16,978,029	17,569,468	18,181,551	18,815,000	19,470,561	20,149,008	20,851,140
Transfer from Reserve (Outreach)	17,000	-	-	-	-	-	-	-	-	-
Municipal Funding - Park Education programs & Outreach	364,723	372,017	379,458	387,047	394,788	402,684	410,737	418,952	427,331	435,878
Internal Chargeback Recoveries	71,770	73,205	74,670	76,163	77,686	79,240	80,825	82,441	84,090	85,772
Total Operating Funding - Conservation Lands & Recreation (Recreation)	**15,623,173**	**16,299,544**	**16,860,666**	**17,441,239**	**18,041,942**	**18,663,474**	**19,306,562**	**19,971,955**	**20,660,429**	**21,372,790**

FORECAST 2024 - 2032

2023 PRELIMINARY OPERATING BUDGET



2023 PRELIMINARY **CAPITAL BUDGET & FORECAST**

2024 - 2032

FORECAST 2024 - 2032

2023 PRELIMINARY CAPITAL BUDGET

Conservation Halton WMSS Capital Expenditures	Ten Year Capital Expenditures and Funding Budget & Forecast - Watershed Management & Support Services									
	2023 Preliminary	2024	2025	2026	2027	2028	2029	2030	2031	2032
Corporate Services										
Asset Management Plan	50,000	40,000	35,000	-	-	75,000	50,000	-	-	-
Program Rates & Fees Review	30,000	-	-	-	-	-	35,000	-	-	-
Compensation Review	-	-	-	32,000	-	-	-	35,000	-	-
GIS Data Acquisition	-	-	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000
Website Upgrade	-	-	-	-	-	50,000	-	-	-	-
Digitizing of paper files	-	-	-	-	-	-	-	-	-	-
IT Infrastructure - Digital Transformation	-	-	-	-	-	-	-	-	-	-
IT Infrastructure - upgrades - WMSS	98,000	77,000	72,000	82,000	62,000	114,000	62,000	82,000	117,000	97,000
Administration Office & Other Facility Renovations	200,000	157,011	209,468	170,595	60,633	225,179	84,936	316,413	406,574	279,101
Central Works Operations Centre & Field Office	1,000,000	1,500,000	-	-	-	-	-	-	-	-
Fleet Management	164,023	56,712	31,208	65,585	29,924	91,849	110,571	135,024	171,967	164,289
Total Corporate Services	1,542,023	1,830,723	362,676	365,180	167,557	571,028	357,507	583,437	710,541	555,390
Natural Hazards & Watershed Management										
Flood Forecasting & Operations										
Flood Forecasting & Warning Program	115,000	75,000	70,000	70,000	40,000	40,000	40,000	40,000	32,500	32,500
Dams and Channels Major Maintenance Projects:										
Scotch Block Dam	55,000	188,000	-	-	-	132,000	-	-	-	-
Hilton Falls Dam	-	246,000	-	-	-	-	103,000	-	-	-
Kelso Dam	165,000	-	-	-	-	-	103,000	-	-	-
Mountsberg Dam	112,000	-	-	-	-	-	-	-	-	116,000
Morrison-Wedgewood Channel	-	53,000	110,000	480,000	498,000	518,000	539,000	560,000	647,000	606,000
Other Dams and Channels	88,000	134,000	1,022,000	623,000	781,000	721,000	752,000	905,000	852,000	846,000
Dam Public Safety Projects	-	-	-	54,000	69,000	-	-	-	-	-
	535,000	696,000	1,202,000	1,227,000	1,388,000	1,411,000	1,537,000	1,505,000	1,531,500	1,600,500
Restoration & Conservation										
Speyside Weir Removal	25,000	12,000	5,000	-	-	-	-	-	-	-
Restoration projects - Roots Ridge, Fuciarelli	109,250									
	134,250	12,000	5,000	-	-	-	-	-	-	-
Watershed Strategies & Climate Change										
Watershed Strategies & Climate Change	179,000	186,000	193,000	201,000	209,000	217,000	226,000	235,000	244,000	254,000
	179,000	186,000	193,000	201,000	209,000	217,000	226,000	235,000	244,000	254,000
Total Natural Hazards & Watershed Management	848,250	894,000	1,400,000	1,428,000	1,597,000	1,628,000	1,763,000	1,740,000	1,775,500	1,854,500

FORECAST 2024 - 2032

2023 PRELIMINARY CAPITAL BUDGET

Conservation Halton WMSS Capital Expenditures	Ten Year Capital Expenditures and Funding Budget & Forecast - Watershed Management & Support Services									
	2023 Preliminary	2024	2025	2026	2027	2028	2029	2030	2031	2032
Permitting & Planning										
Flood Plain Mapping (Updates; 2027 & on ongoing maintenance)	550,000	500,000	525,000	240,000	100,000	102,000	104,000	106,000	108,000	110,000
Total Permitting & Planning	550,000	500,000	525,000	240,000	100,000	102,000	104,000	106,000	108,000	110,000
Conservation Lands & Recreation (Land Management)										
Watershed Implementation Plan	-	-	-	50,000	50,000	50,000	75,000	75,000	50,000	125,000
Spongy / LDD Moth Management	100,000	-	-	-	-	-	-	-	-	-
Emerald Ash Borer (EAB) Management	850,000	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
Property Management Projects	50,000	50,000	50,000	50,000	50,000	50,000	25,000	50,000	50,000	50,000
Total Conservation Lands & Rec. (Land Mgmt)	1,100,000	984,000	944,000	994,000	200,000	200,000	200,000	225,000	200,000	275,000
Total Capital Expenditures - WMSS	**4,040,273**	**4,208,723**	**3,231,676**	**3,027,180**	**2,064,557**	**2,501,028**	**2,424,507**	**2,654,437**	**2,794,041**	**2,794,890**

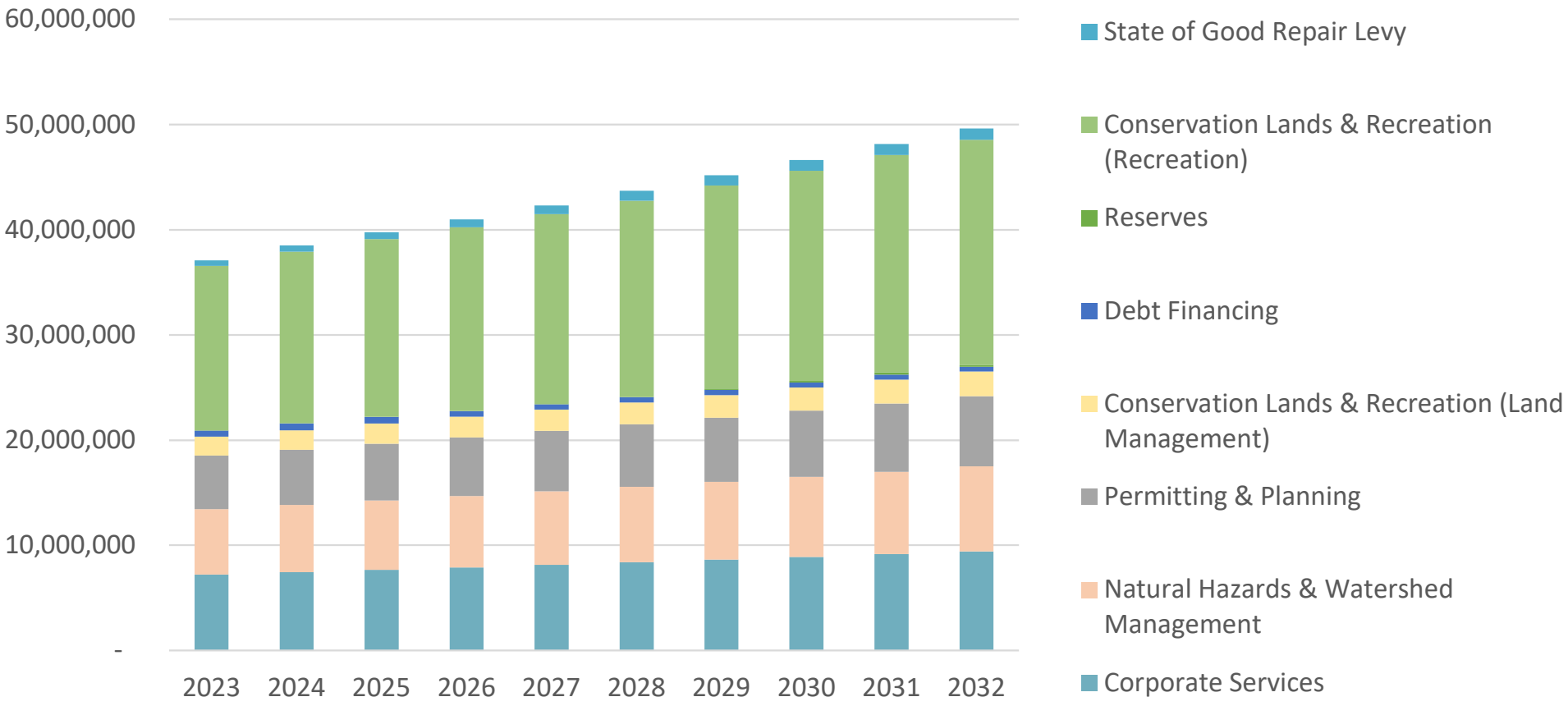
FORECAST 2024 - 2032

2023 PRELIMINARY CAPITAL BUDGET

Conservation Halton Conservation Lands & Recreation (Recreation) Capital Expenditures	Ten Year Capital Expenditures and Funding Budget & Forecast - Conservation Lands & Recreation (Recreation)									
	2023 Preliminary	2024	2025	2026	2027	2028	2029	2030	2031	2032
Capital Expenditures Conservation Lands & Recreation (Recreation)										
Expenditures funded by capital reserve:										
Vehicle and equipment replacement	80,113	146,705	117,690	52,734	68,235	154,778	96,981	171,881	217,486	125,137
Facility and Infrastructure Major Maintenance	600,000	175,000	250,000	240,000	300,000	200,000	800,000	250,000	300,000	300,000
Ski/Snowboarding Capital Expenditures	525,000	900,000	125,000	575,000	400,000	2,200,000	125,000	2,500,000	600,000	800,000
Park Master Plans	-	50,000	50,000	50,000	50,000	-	-	-	-	-
Program Rates & Fees Review	-	30,000	-	-	-	-	35,000	-	-	-
Information Technology Infrastructure	38,000	38,000	68,000	38,000	49,600	68,000	38,000	73,000	68,000	49,600
Subtotal Capital Expenditures Conservation Areas	**1,243,113**	**1,339,705**	**610,690**	**955,734**	**867,835**	**2,622,778**	**1,094,981**	**2,994,881**	**1,185,486**	**1,274,737**
Developer Contribution Projects										
Projects partly funded by Development Contributions 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	767,050
Crawford Lake Boardwalk										
Park projects funded by grants & CH Foundation (including Kelso Quarry Park / Area 8)	-	1,100,000	1,420,000	2,220,000	1,620,000					
Subtotal Costs - Developer Contribution Projects	**-**	**3,854,475**	**4,674,475**	**7,234,375**	**4,879,900**	**1,659,900**	**3,000,000**	**3,000,000**	**1,000,000**	**767,050**
Total Conservation Lands & Recreation (Recreation) Capital Expenditures	**1,243,113**	**5,194,180**	**5,285,165**	**8,190,109**	**5,747,735**	**4,282,678**	**4,094,981**	**5,994,881**	**2,185,486**	**2,041,787**
Funding - Developer Contribution Projects										
Developer Contributions - Region of Halton	-	2,717,275	3,464,275	5,734,975	3,864,000	1,577,700	991,775			
Interest on Developer Contributions - estimate		587,200	500,200	389,400	205,900	82,200	31,700	-	-	-
Transfer from Reserves	-									
Conservation Halton Foundation & Other Funding	-	550,000	710,000	1,110,000	810,000	-	1,976,525	3,000,000	1,000,000	767,050
Subtotal Funding-Developer Contribution Projects	**-**	**3,854,475**	**4,674,475**	**7,234,375**	**4,879,900**	**1,659,900**	**3,000,000**	**3,000,000**	**1,000,000**	**767,050**
Funding - Capital Expenditures Conservation Lands & Recreation (Recreation)										
Conservation Halton Foundation & Other Funding	-									
Transfer from Reserves	1,243,113	1,339,705	610,690	955,734	867,835	2,622,778	1,094,981	2,994,881	1,185,486	1,274,737
Transfer from Reserves - Capital Projects partly funded by Developer Contributions	-	-	-	-	-	-	-	-	-	-
Total Conservation Lands & Recreation (Recreation) Capital Funding	**1,243,113**	**5,194,180**	**5,285,165**	**8,190,109**	**5,747,735**	**4,282,678**	**4,094,981**	**5,994,881**	**2,185,486**	**2,041,787**

FORECAST 2024 - 2032

2023 PRELIMINARY CAPITAL BUDGET



2023 PRELIMINARY BUDGET: **MUNICIPAL FUNDING**

2023 PRELIMINARY BUDGET: **MUNICIPAL FUNDING**

Municipal Funding	2023 Preliminary Budget	2023 Preliminary Municipal Funding	2022 Municipal Funding	Municipal Funding Increase
Operating (excl. SOGR levy)	$36,558,930	$10,373,825	$10,053,136	3.2%
Capital	5,283,386	293,000	262,000	11.8%
	41,842,316	10,666,825	10,315,136	3.4%
State of Good Repair (SOGR) Levy - Dams & Channels; Facilities	540,000	540,000	480,500	12.4%
Total	**$42,382,316**	**$11,206,825**	**$10,795,636**	**3.8%**

2023 PRELIMINARY **MUNICIPAL APPORTIONMENT**

Municipal funding is apportioned to the Region of Halton, City of Hamilton, Region of Peel and Township of Puslinch.

Apportionment refers to the proportion of funding allocated to the municipalities within the Conservation Halton watershed as outlined in Ontario Regulation 670/00. The municipal apportionment percentages are provided annually to Conservation Authorities by the Ontario Ministry of the Environment, Conservation and Parks.

Under the legislation, Conservation Authorities apportion costs to the participating municipalities on the basis of the benefit derived or to be derived by each participating municipality determined by calculating the ratio that each participating municipality's current value assessment modified for the area of the municipality that lies within the watershed to the total modified current value assessment in the Conservation Authority's watershed.

The 2023 preliminary apportionment is based on 2022 apportionment percentages. Updated current value assessment data and apportionment will be received from the province in September 2022.

Municipality:	**Apportion-ment % 2023**	**Municipal Funding 2023**	**Apportion-ment % 2022**	**Municipal Funding 2022**	**% Increase**
Region of Halton	87.8985%	$9,850,631	87.8985%	$9,489,202	3.8%
Region of Peel	4.6944%	526,093	4.6944%	506,790	3.8%
City of Hamilton	7.1904%	805,816	7.1904%	776,249	3.8%
Township of Puslinch	0.2167%	24,284	0.2167%	23,393	3.8%
	100.0000%	**$11,206,824**	**100.0000%**	**$10,795,634**	

2023 PRELIMINARY **MUNICIPAL FUNDING FORECAST**

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.

	BUDGET	FORECAST			
Municipal Funding	**2023 Preliminary**	**2024**	**2025**	**2026**	**2027**
Operating	$ 10,373,825	$10,898,889	$11,306,989	$11,670,163	$12,092,416
Capital	$ 293,000	$ 202,000	$ 242,000	$ 299,000	$ 317,000
Municipal Funding - Total excluding SOGR Levy	**$ 10,666,825**	**$ 11,100,889**	**$ 11,548,989**	**$ 11,969,163**	**$ 12,409,416**
% Change	**3.4%**	**4.1%**	**4.0%**	**3.6%**	**3.7%**
State of Good Repair Levy - Dams and Channels	362,700	415,700	476,300	545,900	625,500
State of Good Repair Levy - Buildings	177,300	183,900	190,700	197,800	205,100
State of Good Repair (SOGR) Levy	$ 540,000	$ 599,600	$ 667,000	$ 743,700	$ 830,600
Muncipal Funding - Total including SOGR Levy	**$ 11,206,825**	**$ 11,700,489**	**$ 12,215,989**	**$ 12,712,863**	**$ 13,240,016**
% Change	**3.8%**	**4.4%**	**4.4%**	**4.1%**	**4.1%**

2023 PRELIMINARY BUDGET: RESERVES

RESERVES

Conservation Halton Reserves	Reserves Projected Balance Dec. 31, 2022	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, 2023
Watershed Management & Support Services							
Vehicle and Equipment	610,901				(164,023)		446,878
Building	116,872				(100,000)		16,872
Building - State of Good Repair	364,820			177,300	(150,000)		392,120
Watershed Management Capital - Municipal Funds and Self Generated Funds	1,141,285			362,700	(210,000)		1,293,985
Watershed Management & Support Services Stabilization	1,319,212					(142,000)	1,177,212
Capital Projects - Debt Financing Charges	471,596						471,596
Digital Transformation	78,400				-		78,400
Legal - Planning & Watershed Management	941,995					(100,000)	841,995
Legal - Corporate	200,000						200,000
Water Festival	178,911				-	(10,000)	168,911
Land Securement	113,739	25,000					138,739
Property Management	1,084,043				(100,000)		984,043
Stewardship and Restoration	345,551				(7,000)	(95,163)	243,388
Conservation Areas							
Capital	1,468,906		506,540		(1,243,113)		732,333
Stabilization	1,146,490						1,146,490
Total Reserves	**9,582,721**	**25,000**	**506,540**	**540,000**	**(1,974,136)**	**(347,163)**	**8,332,962**

RESERVES CONTINUITY

Conservation Halton	Projected 2022	2023 Preliminary	2024	2025	2026	2027	2028	2029	2030	2031	2032
Watershed Management & Support Services Reserves											
Vehicle and Equipment, beginning	$ 704,901	$ 610,901	$ 446,878	$ 390,166	$ 358,958	$ 293,373	$ 263,449	$ 171,600	$ 161,029	$ 151,005	$ 179,038
Transfer to Reserve - Reserve funding (municipal)	-	-	-	-	-	-	-	100,000	125,000	200,000	150,000
Transfer from Reserve - Capital expenditures	(94,000)	(164,023)	(56,712)	(31,208)	(65,585)	(29,924)	(91,849)	(110,571)	(135,024)	(171,967)	(164,289)
Vehicle and Equipment	**$ 610,901**	**$ 446,878**	**$ 390,166**	**$ 358,958**	**$ 293,373**	**$ 263,449**	**$ 171,600**	**$ 161,029**	**$ 151,005**	**$ 179,038**	**$ 164,749**
Building, beg. of year	$ 316,872	$ 116,872	$ 16,872	$ 16,872	$ 16,872	$ 16,872	$ 16,872	$ 16,872	$ 16,872	$ 16,872	$ 16,872
Transfer from Reserve - Capital expenditures	(200,000)	(100,000)	-	-	-	-	-	-	-	-	-
Building	**$ 116,872**	**$ 16,872**	**$ 16,872**	**$ 16,872**	**$ 16,872**	**$ 16,872**	**$ 16,872**	**$ 16,872**	**$ 16,872**	**$ 16,872**	**$ 16,872**
Building - State of Good Repair, beginning of year	$ 418,674	$ 364,820	$ 392,120	$ 379,009	$ 360,241	$ 387,446	$ 531,913	$ 519,434	$ 655,098	$ 567,485	$ 398,211
Transfer to Reserve - SOGR Levy	164,000	177,300	183,900	190,700	197,800	205,100	212,700	220,600	228,800	237,300	246,100
Transfer from Reserve - Capital expenditures	(217,854)	(150,000)	(197,011)	(209,468)	(170,595)	(60,633)	(225,179)	(84,936)	(316,413)	(406,574)	(279,101)
Building - State of Good Repair	**$ 364,820**	**$ 392,120**	**$ 379,009**	**$ 360,241**	**$ 387,446**	**$ 531,913**	**$ 519,434**	**$ 655,098**	**$ 567,485**	**$ 398,211**	**$ 365,210**
Watershed Mgmt Cap.-Municipal & Self Generated	$ 1,175,271	$ 1,141,285	$1,293,985	$ 1,399,185	$ 1,309,485	$ 1,276,885	$1,228,385	$1,259,785	$1,256,785	$1,299,685	$1,356,585
Transfer to Reserves - SOGR Levy	316,500	362,700	415,700	476,300	545,900	625,500	716,900	745,500	775,400	806,400	838,600
Transfer from Reserves - Capital expenditures	(350,485)	(210,000)	(310,500)	(566,000)	(578,500)	(674,000)	(685,500)	(748,500)	(732,500)	(749,500)	(784,000)
Watershed Management Capital - Municipal Funds and Self Generated Funds	**$ 1,141,285**	**$ 1,293,985**	**$1,399,185**	**$1,309,485**	**$1,276,885**	**$1,228,385**	**$1,259,785**	**$1,256,785**	**$1,299,685**	**$1,356,585**	**$1,411,185**
Watershed Mgmt & Support Services Stabilization	$ 1,789,212	$ 1,319,212	$1,177,212	$ 1,177,212	$ 1,177,212	$ 1,177,212	$1,177,212	$1,177,212	$1,177,212	$1,177,212	$1,177,212
Transfer from Reserve	(470,000)	(142,000)	-	-	-	-	-	-	-	-	-
Watershed Mgmt & Support Serv. Stabilization	**$ 1,319,212**	**$ 1,177,212**	**$1,177,212**	**$1,177,212**	**$1,177,212**	**$1,177,212**	**$1,177,212**	**$1,177,212**	**$1,177,212**	**$1,177,212**	**$1,177,212**

RESERVES CONTINUITY

Conservation Halton	Projected 2022	2023 Preliminary	2024	2025	2026	2027	2028	2029	2030	2031	2032
Watershed Management & Support Services Reserves											
Capital Projects - Debt Financing Charges	**$ 471,596**	**$ 471,596**	**$ 471,596**	**$ 471,596**	**$ 471,596**	**$ 471,596**	**$ 471,596**	**$ 471,596**	**$ 471,596**	**$ 471,596**	**$ 471,596**
Digital Transformation, beginning of year	$ 278,400	$ 78,400	$ 78,400	$ 78,400	$ 78,400	$ 78,400	$ 78,400	$ 78,400	$ 78,400	$ 78,400	$ 78,400
Transfer from Reserve	(200,000)	-	-	-	-	-	-	-	-	-	-
Digital Transformation	**$ 78,400**	**$ 78,400**	**$ 78,400**	**$ 78,400**	**$ 78,400**	**$ 78,400**	**$ 78,400**	**$ 78,400**	**$ 78,400**	**$ 78,400**	**$ 78,400**
Legal - Planning & Watershed Management	$ 941,995	941,995	841,995	741,995	741,995	741,995	741,995	741,995	741,995	741,995	741,995
Transfer from Reserve	-	(100,000)	(100,000)	-	-	-	-	-	-	-	-
Legal - Planning & Watershed Management	**$ 941,995**	**$ 841,995**	**$ 741,995**	**$ 741,995**	**$ 741,995**	**$ 741,995**	**$ 741,995**	**$ 741,995**	**$ 741,995**	**$ 741,995**	**$ 741,995**
Legal - Corporate	**$ 200,000**	**$ 200,000**	**$ 200,000**	**$ 200,000**	**$ 200,000**	**$ 200,000**	**$ 200,000**	**$ 200,000**	**$ 200,000**	**$ 200,000**	**$ 200,000**
Water Festival	$ 188,911	$ 178,911	$ 168,911	$ 158,911	$ 148,911	$ 148,911	$ 148,911	$ 148,911	$ 148,911	$ 148,911	$ 148,911
Transfer from Reserve	(10,000)	(10,000)	(10,000)	(10,000)	-	-	-	-	-	-	-
Water Festival	**$ 178,911**	**$ 168,911**	**$ 158,911**	**$ 148,911**	**$ 148,911**	**$ 148,911**	**$ 148,911**	**$ 148,911**	**$ 148,911**	**$ 148,911**	**$ 148,911**
Land Securement	$ 88,739	$ 113,739	$ 138,739	$ 163,739	$ 188,739	$ 213,739	$ 238,739	$ 263,739	$ 288,739	$ 313,739	$ 338,739
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	25,000
Land Securement	**$ 113,739**	**$ 138,739**	**$ 163,739**	**$ 188,739**	**$ 213,739**	**$ 238,739**	**$ 263,739**	**$ 288,739**	**$ 313,739**	**$ 338,739**	**$ 363,739**
Property Management	$ 1,084,043	$ 1,084,043	$ 984,043	$ 984,043	$ 984,043	$ 984,043	$ 984,043	$ 984,043	$ 984,043	$ 984,043	$ 984,043
Transfer from Reserve	-	(100,000)	-	-	-	-	-	-	-	-	-
Property Management	**$ 1,084,043**	**$ 984,043**	**$ 984,043**	**$ 984,043**	**$ 984,043**	**$ 984,043**	**$ 984,043**	**$ 984,043**	**$ 984,043**	**$ 984,043**	**$ 984,043**
Stewardship & Restoration	$ 409,051	$ 345,551	$ 243,388	$ 223,388	$ 203,388	$ 203,388	$ 203,388	$ 203,388	$ 203,388	$ 203,388	$ 203,388
Transfer to (from) Reserve	(63,500)	(102,163)	(20,000)	(20,000)	-	-	-	-	-	-	-
Stewardship and Restoration	**$ 345,551**	**$ 243,388**	**$ 223,388**	**$ 203,388**	**$ 203,388**	**$ 203,388**	**$ 203,388**	**$ 203,388**	**$ 203,388**	**$ 203,388**	**$ 203,388**

RESERVES CONTINUITY

Conservation Halton	Projected 2022	2023 Preliminary	2024	2025	2026	2027	2028	2029	2030	2031	2032
Conservation Areas											
Stabilization	$ 730,490	$ 1,146,490	$ 1,146,490	$ 1,146,490	$ 1,146,490	$ 1,146,490	$ 1,146,490	$ 1,146,490	$ 1,146,490	$ 1,146,490	$ 1,146,490
Transfer to Reserve - target balance	416,000	-	-								
Stabilization	**$ 1,146,490**	**$ 1,146,490**	**$ 1,146,490**	**$ 1,146,490**	**$ 1,146,490**	**$ 1,146,490**	**$ 1,146,490**	**$ 1,146,490**	**$ 1,146,490**	**$ 1,146,490**	**$ 1,146,490**
Capital	2,629,691	1,468,906	732,333	233,176	714,984	1,116,933	1,885,765	973,562	1,665,886	538,087	1,302,634
Transfer to Reserve - Operating Surplus	372,118	506,540	840,548	1,092,498	1,357,682	1,636,668	1,710,575	1,787,305	1,867,082	1,950,032	2,036,187
Transfer from Reserve - Capital expenditures	(1,532,903)	(1,243,113)	(1,339,705)	(610,690)	(955,734)	(867,835)	(2,622,778)	(1,094,981)	(2,994,881)	(1,185,486)	(1,274,737)
Capital	**$ 1,468,906**	**$ 732,333**	**$ 233,176**	**$ 714,984**	**$ 1,116,933**	**$ 1,885,765**	**$ 973,562**	**$ 1,665,886**	**$ 538,087**	**$ 1,302,634**	**$ 2,064,084**
TOTAL RESERVES	$ 9,582,721	$ 8,332,962	$ 7,764,182	$ 8,101,314	$ 8,457,283	$ 9,317,158	$ 8,357,027	$ 9,196,444	$ 8,038,908	$ 8,744,114	$ 9,537,874

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Conservation Halton

June 2022

REPORT TO: **Finance & Audit Committee**

REPORT NO: # FA 02 22 03

FROM: Marnie Piggot, Director, Finance

DATE: June 9, 2022

SUBJECT: **Appointment of Auditor for 2022 Year-End Audit**

Recommendation

THAT the Finance & Audit Committee **recommends to the Conservation Halton Board of Directors the reappointment of KPMG LLP as auditor for Conservation Halton for the 2022 fiscal year-end audit;**

And

THAT KPMG LLP audit fees noted in the report **be approved for up to a further five years subject to annual reappointment as auditors for Conservation Halton (CH).**

Report

According to the CH By-law Governance Section C.6, the General Membership shall appoint an auditor for the coming year in accordance with Section 38 of the Conservation Authorities Act.

A Request for Proposal (RFP) for the Provision of External Audit Services was issued by Conservation Halton in 2017. The RFP provided for a term from 2017 to 2021 with the option to renew annually for up to a further five years.

The Finance & Audit Committee and Conservation Halton Board of Directors approved the Audit Services award based on the 2017 RFP as follows:

That the Finance Committee approves ***the appointment of the firm of KPMG LLP as external auditors for Conservation Halton for up to a five-year term for the fiscal years 2017 to 2021, with the option to renew annually for up to an additional five years.***

Audit fees were requested in the RFP for the fiscal years 2017 to 2021. KPMG fees ranged from $25,500 to $27,500.

After the completion of the 2021 year-end audit, staff requested fees from KPMG for up to a further five year term for the 2022 to 2026 fiscal year end audits. Proposed fees were received from KPMG as follows:

2022	$30,800
2023	$32,000
2024	$33,200
2025	$34,150
2026	$35,175

Staff recommends the reappointment of KPMG as auditors for Conservation Halton for 2022 based on the services provided to date. The fee increase for the 2022 year end audit is reasonable at $3,300 and is within the 2022 budget estimate. Fees increases proposed by KPMG over the 2022 to 2026 term range from 2.9% to 3.9%.

Impact on Strategic Goals

This report supports the Momentum priority of Organizational Sustainability.

Financial Impact

The 2022 audit fee of $30,800 proposed by KPMG LLP is provided for in the 2022 budget.

Signed & respectfully submitted:

Marnie Piggot
Director, Finance

Approved for circulation:

Hassaan Basit
President & CEO/Secretary-Treasurer

FOR QUESTIONS ON CONTENT: Marnie Piggot; Director Finance
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