



NOTICE OF MEETING

DATE: October 19, 2023

TIME: 4:00 pm

LOCATION: Zoom and Hybrid Meeting

AGENDA

MEETING:

BOARD OF DIRECTORS

MEMBERS:

Randy Barber, Bruce Buttar, Mark Lovshin, Vicki Mink, Miriam Mutton, Lance Nachoff, Tracy Richardson, Adam Pearson, Joan Stover, Willie Woo, Margaret Zwart

1. Welcome, Land Acknowledgement and Call to Order

Land Acknowledgement

The Ganaraska Region Conservation Authority respectfully acknowledges that the land on which we gather is situated within the traditional and treaty territory of the Mississauga's and Chippewa's of the Anishinabek, known today as the Williams Treaties First Nations. Our work on these lands acknowledges their resilience and their longstanding contribution to the area. We are thankful for the opportunity to live, learn and share with mutual respect and appreciation.

2. Disclosure of Pecuniary Interest
3. Minutes of Last Meeting – **September 21, 2023 – attached**
4. Adoption of the Agenda

5. Delegations:
None.
6. Presentations:
 - a) Wilmot/Graham Creek Floodplain Mapping Update Study – **staff report attached**
 - b) Floodplain Mapping Update Implementation Plan – **staff report attached**
7. Business Arising from the Minutes:
 - a) 2024 Preliminary Budget and Municipal Levy – **staff report attached**
8. Correspondence:
03/23 Municipality of Clarington re: Presentation – **note and file**
9. Applications under Ontario Regulation 168/06:
Permits approved by Executive - **schedule attached**

Permit applications requiring Board of Directors discussion:
None
10. Committee Reports:
None.
11. New Business:
None.
12. Other Business:
None.
13. Public Question Period - **Agenda Items Only**
 - All questions are to be submitted the day before by 4:00 pm in advance of the Board of Directors meeting in order to allow staff to prepare the answers to the questions. The Chair has discretion for questions on the day of the meeting.
 - A maximum of 10 minutes will be allotted for the Question Period. More time can be allocated at the discretion of the Chair.
 - Persons wishing to ask a question must state their name and address for the record.
 - Questions will be restricted to only those items listed on the agenda.
 - Questions cannot be asked on “In Camera” items.
 - Questions cannot be asked with respect to minutes of Board of Directors meetings or committee meetings.

- All persons will speak respectfully when asking the question.
- The Chair may conclude the Question Period prior to the ten (10) minute time limit, where attendees are disobeying the Rules of Order, or a decision of the Chair, or where there are no questions.

14. In Camera:
None.
15. Adjourn

GANARASKA REGION CONSERVATION AUTHORITY

MINUTES OF THE BOARD OF DIRECTORS

September 21, 2023 (Hybrid)

GRCA 05/23

1. Welcome, Land Acknowledgement and Call to Order

The Chair called the Ganaraska Region Conservation Authority (GRCA) Board of Directors meeting to order at 4:02 p.m.

MEMBERS PRESENT: Mark Lovshin, Chair - Township of Hamilton
Vicki Mink, Vice - Chair - Municipality of Port Hope
Randy Barber - Town of Cobourg
Bruce Buttar - Agricultural Representative
Miriam Mutton - Town of Cobourg
Lance Nachoff - Township of Cavan Monaghan
Adam Pearson - Municipality of Port Hope
Tracy Richardson - City of Kawartha Lakes
Joan Stover - Township of Alnwick/Haldimand
Willie Woo - Municipality of Clarington
Margaret Zwart - Municipality of Clarington

ALSO PRESENT: Linda Laliberte, CAO/Secretary-Treasurer
Cory Harris, Watershed Services Coordinator
Ken Thajer, Planning and Regulations Coordinator
Ed Van Osch, Forest Recreation Technician

**ABSENT WITH
REGRETS:**

ALSO ABSENT:

Land Acknowledgement

The Ganaraska Region Conservation Authority respectfully acknowledges that the land on which we gather is situated within the traditional and treaty territory of the Mississauga's and Chippewa's of the Anishinabek, known today as the Williams Treaties First Nations. Our work on these lands acknowledges their resilience and their longstanding contribution to the area. We are thankful for the opportunity to live, learn and share with mutual respect and appreciation.

2. Disclosure of Pecuniary Interest

None.

3. Minutes of Last Meeting

GRCA 37/23

MOVED BY: Randy Barber
SECONDED BY: Adam Pearson

THAT the Ganaraska Region Conservation Authority approve the minutes of the June 15, 2023 meeting.

CARRIED.

4. Adoption of the Agenda

GRCA 38/23

MOVED BY: Miriam Mutton
SECONDED BY: Joan Stover

THAT the Ganaraska Region Conservation Authority adopt the agenda.

CARRIED.

5. Business Arising from Minutes:

None.

6. Delegations

a) Adam Yahn, resident on Glen Watford Road, Cobourg made a presentation to the Board of Directors with regards to the lands that are bordered by Canadian National Rail to the north, town limits/Bob Carr Road to the west, Lake Ontario to the south, and Glen Watford Road to the east. Adam communicated concerns regarding a potential residential development. The presentation can be found in the agenda items for this meeting.

GRCA 39/23

MOVED BY: Joan Stover
SECONDED BY: Adam Pearson

THAT the Ganaraska Region Conservation Authority receive the delegation for information and refer the information from the presentation to staff.

CARRIED.

7. Presentations

None.

8. Correspondence

02/23 Ministry of Municipal Affairs and Housing re: Proposal to return lands in Ajax to the Greenbelt.

GRCA 40/23

MOVED BY: Vicki Mink
SECONDED BY: Tracy Richardson

THAT the Ganaraska Region Conservation Authority receive the correspondence to note and file.

CARRIED.

9. Applications under Ontario Regulation 168/06:

Permits approved by Executive:

GRCA 41/23

MOVED BY: Randy Barber

SECONDED BY: Margaret Zwart

THAT the Ganaraska Region Conservation Authority receive the permits for information.

CARRIED.

Permit Application requiring Ganaraska Region Conservation Authority Board of Directors discussion:

None.

10. Committee Reports:

a) Ganaraska Forest Recreational Users Committee Minutes – September 7, 2023

Miriam Mutton asked a question in regard to the environmental concerns that are brought forward at the Recreational Users Committee meetings. Staff confirmed concerns of this nature are addressed at said meetings.

GRCA 42/23

MOVED BY: Joan Stover

SECONDED BY: Lance Nachoff

THAT the Ganaraska Region Conservation Authority receive the Ganaraska Forest Recreational Users Committee Minutes – September 7, 2023 for information.

CARRIED.

11. New Business

a) Municipal Memorandum of Understanding as per Regulation 687/21

GRCA 43/23

MOVED BY: Miriam Mutton

SECONDED BY: Randy Barber

THAT the Board of Directors approve the Memorandum of Understanding and Appendices to be forwarded to the watershed municipalities.

CARRIED.

b) Program and Services Inventory

GRCA 44/23

MOVED BY: Adam Pearson

SECONDED BY: Lance Nachoff

THAT the Board of Directors approve the Ganaraska Region Conservation Authority's Programs and Services Inventory,

AND FURTHER THAT, the Ganaraska Region Conservation Authority Board of Directors direct staff to distribute the Programs and Services Inventory to the member municipalities and the Ministry of Natural Resources and Forestry as well as post the document on the GRCA website.

CARRIED.

c) 2024 Preliminary Budget Criteria

GRCA 45/23

MOVED BY: Joan Stover

SECONDED BY: Lance Nachoff

THAT the Board of Directors direct staff to prepare the 2024 preliminary budget based on the criteria contained in the staff report dated September 21, 2023, and the preliminary budget be prepared for the October 19, 2023 meeting.

CARRIED.

12. Other Business:

Ganaraska Forest Board Members Tour

The Board of Directors discussed the dates for the Ganaraska Forest Board Members Tour. It was decided the tour would take place October 19, 2023, beginning at 1:00 pm. The Board will meet at the Forest Centre. After the forest tour, the regular Board meeting will take place at the administrative office in person and via Zoom.

13. Public Question Period

None.

14. In Camera

None.

15. Adjourn

GRCA 46/2023

MOVED BY: Vicki Mink

SECONDED BY: Randy Barber

THAT the meeting adjourned at 5:00 p.m.

CARRIED.

CHAIR

CAO/SECRETARY-TREASURER

STAFF REPORT – October 19, 2023

TO: Chair and Members of the Board of Directors

RE: Wilmot and Graham Creek Floodplain Mapping Update Study

Cory Harris, Watershed Services Coordinator, will be giving a PowerPoint presentation to the Members of the Board regarding the Wilmot and Graham Creek Floodplain Mapping Update Study.

Background

The Ganaraska Region Conservation Authority (GRCA) partnered with the Municipality of Clarington to update flood plain mapping for the Graham and Wilmot Creek watersheds. The original flood hazard mapping for Wilmot and Graham Creeks was completed by Dillon Consulting for the GRCA in 1977 through the Flood Damage Reduction Program (FDRP) mapping program. The Dillon study prepared flood mapping for the Town of Newcastle for Wilmot, Foster and Graham Creeks. Since the original studies were completed, significant urban growth has occurred in Clarington, in addition to the eastern extension of Hwy 407. Watershed hydrology and riverine hydraulics are out of date.

As noted, the floodplain information available from the Dillon study is very dated (1977). Digital copies of the original models consisted of computer punch cards and are not available for modification/updates. As such, the models needed to be recreated. Updated maps were needed to determine the current impact a flood would have on infrastructure and human life.

In the fall of 2020, the Municipality of Clarington collaborated with GRCA and the Region of Durham and submitted an application to the National Disaster Mitigation Program (NDMP) to update the floodplain models and mapping for both the Graham and Wilmot Creek watersheds. The application was successful and work on the study commenced in the spring of 2021. The update study used the 2016 provincial LiDAR data and new survey information from extensive field survey efforts of over four hundred bridge and culvert structures. This information was used to update the hydrologic and hydraulic models for Wilmot and Graham Creeks to modernize the flood mapping for the vulnerable areas of Newcastle and Orono within the Wilmot and Graham Creek watersheds.

Preliminary models were produced in 2022 and draft floodlines were prepared and shared with the public in March of 2023 through a web-based mapping

viewer. A public information centre (PIC) was held in Newcastle on March 20, 2023. Comments were received and the maps and project report were finalized.

Future Uses of Mapping and Models

The information updated through this study will be used to update the flood hazard mapping for Wilmot and Graham Creeks as administered by the GRCA. Floodplain mapping helps to identify areas that may be at risk of flooding during severe storms and is an important tool for land use planning and will inform the Municipality of Clarington Official Plan and zoning mapping. The floodplain mapping will support the creation of future inundation mapping and will be used in future risk analyses by the Region of Durham and others in emergency preparedness and asset management planning.

RECOMMENDATION:

THAT the Ganaraska Region Conservation Authority receives the presentation regarding the Wilmot and Graham Creek Floodplain Mapping Update Study for information;

AND FURTHER THAT the floodplain mapping for the Wilmot and Graham Creek watersheds as described in this report be adopted for use by the Ganaraska Region Conservation Authority.

Prepared by:



Cory Harris, P.Eng., CAN-CISEC
Watershed Services Coordinator

Recommended by:



Linda J. Laliberte, CPA, CGA
CAO / Secretary-Treasurer

STAFF REPORT – October 19, 2023

TO: Chair and Members of the Board of Directors

RE: Floodplain Mapping Update Implementation Plan

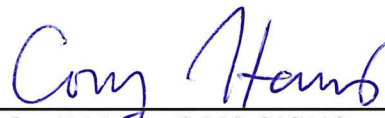
Cory Harris, Watershed Services Coordinator, will be giving a PowerPoint presentation to the Members of the Board regarding the Floodplain Mapping Update Implementation Plan. A copy of the Implementation Plan has been attached to this report for information.

RECOMMENDATION:

THAT the Gannett Region Conservation Authority receives the presentation regarding the Floodplain Mapping Update Implementation Plan for information;

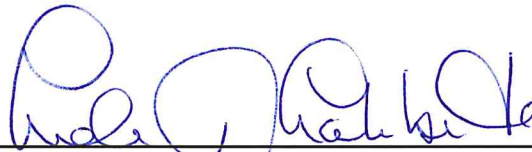
AND FURTHER THAT the Floodplain Mapping Update Implementation Plan be approved by the Gannett Region Conservation Authority board.

Prepared by:

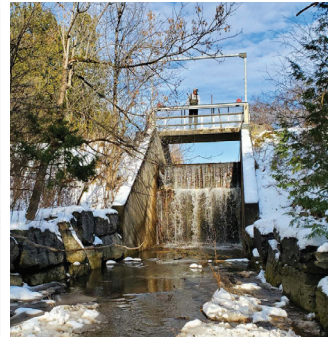


**Cory Harris, P.Eng., CAN-CISEC
Watershed Services Coordinator**

Recommended by:



**Linda J. Laliberte, CPA, CGA
CAO / Secretary-Treasurer**



Floodplain Mapping Update Implementation Plan

GANARASKA REGION CONSERVATION AUTHORITY

October 2023

Clean Water, Healthy Land For Healthy Communities



For more information:

Watershed Management Services
Ganaraska Region Conservation Authority
2216 County Road 28
Port Hope, ON L1A 3V8
905-885-8173

<https://grca.on.ca/content/mapping-natural-hazards>

Conservation Authority Approval

Board Meeting Date 2023-10-19	Click or tap to enter the resolution as stated in Board Meeting Minutes
Resolution Number Click to add Resolution #	



Executive Summary

The Floodplain Mapping Update Implementation Plan that was approved by the Ganaraska Region Conservation Authority Board of Directors. This document includes a summary of floodplain mapping projects that are underway, overview of the federal, provincial, and conservation authority guidelines for floodplain mapping, a project prioritization matrix, a framework for future projects and next steps, and a proposed project schedule for 2024-2028. In addition, an approach for implementing climate change considerations into floodplain mapping projects is presented. **The report also includes recommendations to leverage municipal budget resources to facilitate obtaining funds from federal floodplain mapping programs which are expected to be available between 2024 and 2028.**

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Introduction

Background

Flooding and natural hazard occurrences have a long history in Ontario. In fact, flooding is the leading cause of public emergency (Conservation Ontario, 2022). There have been thousands of flooding events in the province, the most notable and catastrophic being Hurricane Hazel, in 1954 (see www.hurricanehazel.ca). Within the Ganaraska Region Conservation Authority (GRCA) watershed, several significant storm events occurred in recent years, most notably the 1980 flood in Port Hope, the 2010 flood in Cobourg, and the 2017 and 2019 flooding along the Lake Ontario shoreline, giving watershed residents and municipalities an acute understanding of the significant damage and disruption to the community such hazards can create.

While there are varying approaches to managing natural hazards, the provincial model for reducing the impacts of natural hazards, and thus reducing the risk of loss of life and minimizing property damage, is based on three components:

- **Prevention** through land use planning and the regulation of development;
- **Protection** by applying structural and non-structural measures and acquisition;
- **Emergency Response** by flood forecasting/warning and flood/erosion disaster relief.

Although there are three components of this provincial model, over the long term, prevention is the preferred method of natural hazard management. Accurate floodplain mapping and delineating the extent of riverine flooding then becomes critical in implementing preventative measures related to flooding hazards.

From a planning and development angle, which is the cornerstone of natural hazard prevention found in both models, the interest of Conservation Authorities is primarily two-fold:

1. Regulatory Authority

GRCA is the approval authority for development and/or activity applications submitted for approval under the “Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses” (O.Reg 168/06) under the Section 28 of the Conservation Authorities Act within GRCA’s area of jurisdiction. Development, interference, and alteration in areas subject to this regulation require permission from GRCA. This permission is granted in the form of a permit. Applications are granted approval in the form of a permission (permit) with, or without, conditions or may be denied.

2. Delegated Responsibilities in Plan Review with Respect to Natural Hazards

GRCA, like all other Conservation Authorities, has been delegated the responsibility to represent the ‘provincial interest’ as it relates to natural hazards by reviewing and commenting on planning matters within its watershed for conformity with Section 3.1 of the Provincial Policy Statement.

Conservation Ontario (CO) has taken this provincial three-pronged approach and further refined it to the Five Pillars of Emergency Management: Prevention, Mitigation, Preparedness, Response and Recovery (Conservation Ontario, 2022). Typical activities associated with each of these pillars are:

- Planning and regulation (**Prevention**);
- Flood control structures, flood proofing, flood forecasting and warning systems (**Mitigation**);
- Flood contingency planning, training, public education (**Preparedness**);
- Monitoring and flood messaging (**Response**); and,
- Recovery programs which assess overall damage and conduct post event audits (**Recovery**).

Floodplain Mapping Updates

Several floodplain mapping studies have been completed in recent years and are summarized in Table 1 below. A map of floodplain studies by date completed is included in **Appendix A**.

Table 1: Summary of Floodplain Mapping Projects Recently Completed and Underway

Watershed	Project Status
Wilmot Creek	Completed in 2023 through support from the Municipality of Clarington, Region of Durham and matching funding from the federal National Disaster Mitigation Program (NDMP).
Graham Creek	Completed in 2023 through support from the Municipality of Clarington, Region of Durham and matching funding from the federal National Disaster Mitigation Program (NDMP).
NW Ganaraska River, Lovekin Creek, Bouchette Point Creek, Port Granby Creek	Project currently underway through support from Region of Durham and matching funding from the federal Flood Hazard Identification and Mapping Program (FHIMP).

Floodplain Mapping Framework/Guidelines

Federal

The regulatory framework surrounding floodplain mapping has received considerable updates in recent years. In particular, the Federal Flood Mapping Guidelines Series was released and includes seven documents for LiDAR data acquisition, modelling procedures, mapping, flood damage estimation, mitigation, and case studies on climate change in flood mapping. The main documents that will impact floodplain mapping initiatives are:

1. Federal Flood Mapping Framework Version 2.0 (Natural Resources Canada, 2018b)
2. Federal Hydrologic and Hydraulic Procedures for Flood Hazard Delineation (Natural Resources Canada, 2019)
3. Case Studies on Climate Change in Floodplain Mapping (Natural Resources Canada, 2018a)

It is a requirement that Federally funded floodplain mapping projects strictly adhere to these guiding documents.

Federal Flood Mapping Framework

The Federal Flood Mapping Framework lays out the history and importance of floodplain mapping in Canada and how the series of documents will be used to create an effective framework for identifying, assessing, and mitigating flood risks. The framework is illustrated in Figure 1, below.

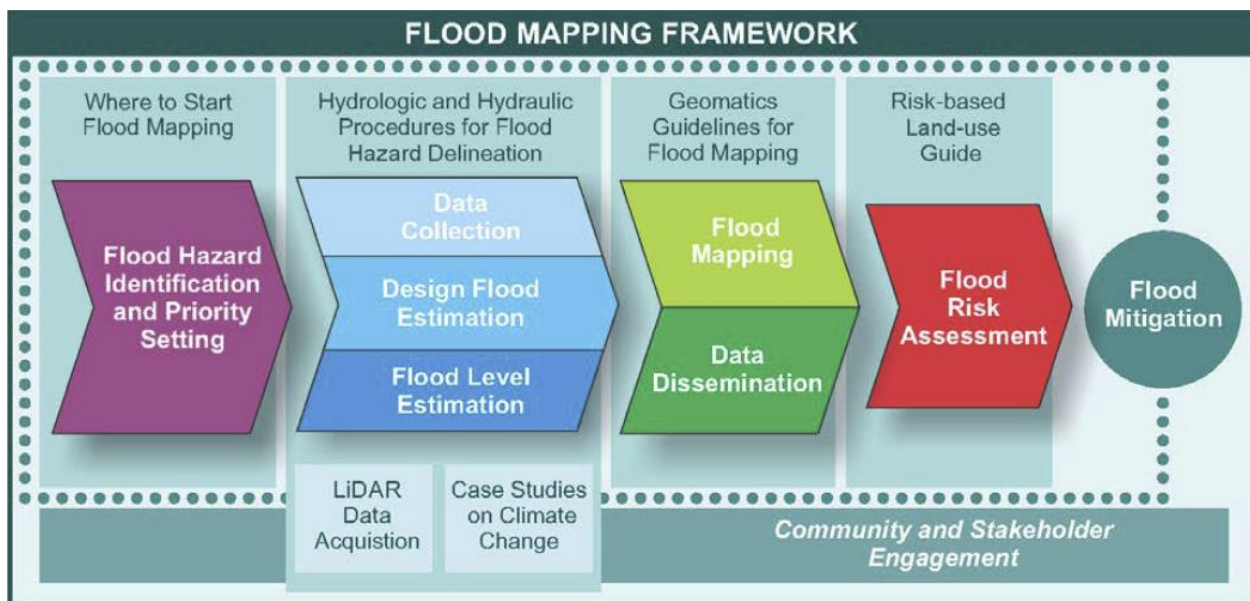


Figure 1: Federal Flood Mapping Framework (from Federal Flood Mapping Framework)

Federal Hydrologic and Hydraulic Procedures for Flood Hazard Delineation

The Federal Hydrologic and Hydraulic Procedures for Flood Hazard Delineation provides a high-level methodology and principles for effective flood hazard delineation. Generally, these guidelines are less prescriptive than the provincial guidelines, but include more modern modelling approaches including 2D modelling.

Case Studies on Climate Change in Floodplain Mapping

Case Studies on Climate Change in Floodplain Mapping presents a series of floodplain mapping projects in Canada where climate change was incorporated into the floodplain mapping process. The document is not prescriptive but provides useful approaches for accounting for climate change under various conditions. The two predominant themes in the case studies are sea level rise and increasing precipitation due to increasing annual average temperatures. Sea level rise is not applicable to the GRCA watershed, so climate change considerations shall focus on the potential impacts of increasing precipitation.

Provincial

The Ministry of Natural Resources and Forestry (MNRF) is administering the Federal Flood Hazard Identification and Mapping Program (FHIMP) within Ontario and has indicated they will support 2D modelling with certain technical stipulations, although that support is not currently reflected in provincial guidelines.

The most current guidance on floodplain mapping from the provincial government remains the River & Stream Systems: Flooding Hazard Limit Technical Guide (MNRF, 2002). The MNRF did release a Technical Bulletin outlining Data Survey and Mapping Specifications in July 2023 for technical input and comment.

Conservation Authorities

Several Conservation Authorities in Ontario commissioned the Technical Guidelines for Flood Hazard Mapping (Environmental Water Resources Group Ltd., 2017). This document represents the most prescriptive and thorough technical guidelines available for floodplain mapping in Ontario that ensure projects are accurate and defensible.

These technical guidelines break down each aspect of a floodplain mapping project into specific procedures and analyses required, as well as reporting requirements and data dissemination. These guidelines are generally related to the hydrologic and hydraulic procedures and geomatics guidelines from the Federal Flood Mapping Framework and do not include information about priority setting, flood damage estimation, or flood mitigation.

This document created the framework that has led to the successful completion of floodplain mapping projects for several of the largest Conservation Authorities, and has ensured that thorough, repeatable methodologies are applied such that the representations of flood risk are

consistent across jurisdictions. It is recommended that this document be used to guide floodplain mapping projects within the jurisdiction of the GRCA and its partner municipalities.

Strategy

Project Priorities

Prioritization Matrix

The primary watercourses within the GRCA watershed were analysed regarding the state of their existing hydrologic and hydraulic models, topographic mapping, and hazard level. Many floodplain studies require an update/replacement, particularly studies that are greater than twenty years old. To ensure the watercourses most in need of accurate and current floodplain mapping are completed, a prioritization ranking system was used.

The greatest need for updated or new floodplain mapping is dependent on the quality and usability of the existing information for a particular watercourse, or lack thereof, and the risk consequences associated with flooding on a particular watercourse. To aid in the evaluation, each watercourse was given a weighted score based on the factors listed below. Note that each watercourse was scored based on models and mapping that have been previously adopted by the board.

Hydrology, hydraulics, and mapping were each given a score of 1 to 4. These values were defined as:

- Current and accurate – 1 point:
 - Created since 2017
 - Available electronically, in a current digital model
 - Uses LiDAR-derived terrain model in new national standard (CGVD2013)
- Out-dated and electronic format – 2 points:
 - Created before 2017
 - Available electronically
 - Produced in out-dated software
 - Does not use LiDAR in new national vertical standard (CGVD2013)
- Out-dated and hardcopy only – 3 points:
 - Created before 2004
 - Available in hardcopy only
- None available – 4 points:
 - No model available

Hazard level was also given a score of 1 to 4 and was based on the criteria outlined in the Conservation Ontario document 'Metadata Inventory of Existing conservation Authority Flood Mapping' (2017). The criteria are based on a number of factors, including the number of buildings located in the floodplain, whether the floodplain is situated within a confined or unconfined valley, and considerations for land use planning information and future growth areas. A hazard score was assigned to a particular reach or watercourse system. The hazard scores are defined as follows:

- High – ≥ 80% of the reach, by length, classified as high hazard (4 points)
- Medium – ≥ 80% of the reach, by length, classified as medium or high hazard (3 points)
- Low – 40 - 79% of the reach, by length, classified as medium or high hazard (2 points)
- Very Low – >60% of the reach, by length classified as low hazard (1 point)

All of the components were combined using the formula:

Score = (Hydrology + Hydraulics + Mapping) * Hazard Level

Final scores were used to determine the priority of floodplain mapping for each of the watercourses, with higher scores indicating a higher priority. The resultant values and priority list are summarised below in Table 2. Other factors, such as study cost and technical difficulty, are not factored into this assessment. Studies that are in progress are highlighted in green.

Table 2: Watercourse Prioritisation Matrix

Watershed/Watercourse	Hydrology	Hydraulics	Mapping	Hazard Level	Score
Cobourg Creek (in Hamilton Township/Alnwick-Haldimand)	4	4	4	3	36
Spicer Creek/Covert Creek	4	4	4	3	36
Wesleyville Creek	4	4	3	3	33
West Gages Creek	3	2	3	4	32
Cobourg Creek (2D assessment)	2	3	3	4	32
Midtown Creek (2D Assessment - Elgin Rd to Lake)	2	3	3	4	32
Foster Creek 2D Assessment - from CPR to CNR	1	3	3	4	28
Foster Creek - merge 2015 and 2019 models in CGVD2013	2	2	2	4	24
Ganaraska River (Urban Area)	2	2	2	4	24
Ganaraska River (Rural Area)	4	4	4	2	24
Gages Creek	4	4	4	2	24
East of Gages Creek Trib 5 (Apple Orchard Rd/Bob Carr Rd and Hwy 2)	4	4	4	2	24
East of Gages Creek Trib 6 (Westwood Dr and CNR/CPR)	4	4	4	2	24
Cobourg Creek (in Cobourg)	2	2	2	4	24
Midtown Creek	2	2	2	4	24
Brook Creek	2	2	2	4	24
Plainville Creek (Plainville to Rice Lake)	4	4	4	2	24
Port Britain Creek	4	4	3	2	22
Little's Creek (on West side of Urban Port Hope)	4	4	3	2	22
Massey Creek	2	2	2	3	18
East of Gages Creek Trib 4 (Augustine Rd and Hwy 2)	4	4	4	1	12
Brookside Creek (Carruthers Rd and Hwy 2)	4	4	4	1	12
Harwood/Goose Creek (Harwood Rd to Rice Lake)	4	4	4	1	12
West Lake Ontario Trib 8 (East of Port Granby)	4	4	3	1	11
Wesleyville Marsh Creek	4	4	3	1	11

Brands Creek (East of Port Britain Creek)	4	4	3	1	11
Wilmot Creek	1	1	1	2	6
Graham Creek	1	1	1	2	6
Lovekin Creek	1	1	1	2	6
Bouchette Point Creek	1	1	1	2	6
Port Granby Creek	1	1	1	2	6

The results of the prioritisation matrix clearly indicate a number of priority projects that ranked very high due to the age and/or absence of digital models and mapping and/or risk levels within floodplain areas. These projects will need to be discussed with municipal staff to confirm whether budget resources are available to leverage matching federal funding while it is available.

Future Project Needs

Once adequate mapping is in place for watersheds where significant development is present, the next step is to assess the potential damage associated with flooding and develop mitigation strategies and prioritize infrastructure upgrades. The Toronto and Region Conservation Authority (TRCA) has developed a methodology for prioritizing crossing upgrades to reduce flooding, improve the resiliency of road crossings to extreme flood events, and ensure large floods do not undermine road crossings. Understanding the private property impacts is also important for prioritizing mitigation efforts, and flood damage estimation projects can provide dollar estimates for private property damage for a given flood magnitude. Dollar estimates are based on the depth of flooding at buildings within the floodplain, combined with the estimated damage associated with the degree of inundation and building types based on insurance data. Several of the larger Conservation Authorities in Ontario have used this approach. This process however, can be data intensive as it requires information about the minimum elevation where flooding can occur for each building.

Real-time flood forecasting and warning has also been developed by several Conservation Authorities to provide short-term risk projections for floods based on current flow data and meteorology forecasts. The Water Information System by Kisters (WISKI) has been used to compile data from many sources for use in these projects. Flood forecasting is completed using forecasted radar precipitation, which estimates the amount of rainfall that will fall on various parts of the watershed and runs hydrologic models for each watershed based on the forecasted rainfall to estimate the expected watercourse flows and whether those flows present a flood risk. A flood warning system typically uses real data, such as from flow gauges in the upper reaches of watersheds that can trigger warnings when upstream flows are high enough that a flood further downstream is likely.

Both flood damage estimation projects and real-time flood forecasting and warning systems assess the short and long-term risk of flooding and how it can be mitigated. On the long-term side, infrastructure and watershed management practices can be improved to mitigate risk, and on the short-term side flood forecasting and warning systems can be used to notify municipal partners of impending flooding to enable them to mobilize an emergency response and evacuations, and mitigative actions such as road closures and sandbagging key locations to reduce flood impacts.

Updated hydrologic and hydraulic models are foundational to advancing forecasting efforts.

Technical Approach

Clear methodologies and reporting requirements are needed to ensure floodplain mapping studies follow applicable technical guidelines and can be easily evaluated by reviewers. The descriptions of the technical approach and data used need to be sufficient such that the results of the study can be duplicated by a qualified engineer without significant assumptions.

Flood management is regulated by provincial, territorial, and municipal levels of government, which often have different technical requirements. The federal government has developed the Federal Hydrologic and Hydraulic Procedures for Flood Hazard Delineation (Natural Resources Canada, 2019) to provide a summary of current technical practices used by qualified professionals in Canada. While provincial regulations and guidelines supersede the federal documents, the federal documents are a good reference for aspects of floodplain mapping not included in provincial guidelines, such as 2D hydraulic modelling.

All floodplain mapping projects must be consistent with the River & Stream Systems: Flooding Hazard Limit Technical Guide (MNRF, 2002). If hydrologic models, hydraulic models, or floodplain maps and their technical reports are not consistent with the requirements of the guidelines, then they should not be adopted as regulatory floodplain maps or implemented into Official Plans or Zoning By-Laws.

The Technical Guidelines for Flood Hazard Mapping (Environmental Water Resources Group Ltd., 2017) were developed to provide a prescriptive methodology for floodplain mapping projects while being consistent with provincial guidelines. For specific guidance for model development and reporting requirements, this document should be referred to. The reporting requirements in the document are more thorough than the provincial guidelines and represent an increase in the level of effort required to adhere to them. To balance the need for technical consistency, while not placing an undue burden on the modeller, it is recommended the document should generally be adhered to, but specific aspects can be removed with written justification in the report and written approval from GRCA following the draft technical report and model review. Consideration should also be given to having the models and reports peer-

reviewed by an independent Professional Engineer prior to finalizing such that input and recommendations can be implemented.

Finally, all regulatory floodplain mapping projects should have reports and floodplain maps signed and stamped by a Professional Engineer licensed within the province of Ontario.

Climate Change Adaptation

Recent climate change reports have suggested Canada's climate is warming twice as fast as the global average (McNeil, 2019). A key part of quantifying flood risks for long-term planning is understanding the conditions leading to flooding and how those conditions will change over time. Fundamental climate variables having a direct impact on flood risks are temperature and precipitation. These variables directly affect intensity, duration and frequency of precipitation events which increase flood risk.

GRCA developed a Climate Change Strategy in 2014 to guide climate change mitigation and adaptation approaches locally. Where updating and identifying regulatory flood hazards within the watershed to the current standard is extremely important, GRCA aims to assess the possible impacts of climate change by integrating further flood risk analysis into the mapping process. This will ensure GRCA is meeting the goals of the Climate Change Strategy to quantify the future impacts of climate change on floodplain mapping and assist in hazard management with respect to local land use planning.

Several climate models exist that represent different emissions and warming regimes. These models can be used to predict the future precipitation intensity, duration, and frequencies. Predicting the future precipitation regime involves predicting the level of global emission reductions over the next 50-100 years and the associated impact to the climate. Based on the current trajectories, it is unlikely emissions will be significantly reduced soon enough to mitigate significant temperature and precipitation increases. Therefore, when considering climate change scenarios, current trajectories or worsening scenarios should be considered. To achieve this, it is recommended that a middle of the road scenario, representing current trajectories, as well as a worst-case scenario should be modelled. A time horizon of about 100-years should be used to be in-line with Conservation Authority and Provincial planning objectives.

It is recommended the GRCA collaborate with local municipalities to establish new Intensity-Duration-Frequency (IDF) curves that reflect future climate change impacts. A tool was developed by the University of Western Ontario (UWO) that applies various climate models and scenarios to Environment and Climate Change Canada precipitation datasets to estimate changes to local IDF curves from 2015-2100 (Simonovic et al., 2015). The IDF curves are used in hydrologic modelling to determine the magnitude of return period storms (i.e. 50-year, 100-year storm, etc.). Using the tool from UWO will facilitate the integration of future precipitation

regimes associated with climate change into modelling and floodplain mapping without the need for specialized climate experts. Similar tools can also be considered for future studies.

In addition to accounting for climate change in design storms, attention should be paid to extreme events that are larger than the 100-year storm event. The Hurricane Hazel Storm is the Regional Storm within the GRCA watershed, which occurred in 1954 before significant changes to the climate and precipitation regimes were observed. Under present and future climate change scenarios, a storm of the same return period would be significantly larger. More uncertainty is present when predicting the magnitude of extreme events. Factors such as rising ocean temperatures could allow hurricanes to make landfall further north and hit Ontario with increasing intensity. Larger storms could also develop within the Great Lakes due to rising temperatures, such as the unusual extra-tropical cyclone that formed on Lake Huron in 1996.

The MNRF states the regulatory floodplain should be defined as the larger of the 100-year storm, the Regional Storm, or a larger event observed locally.

The Federal Flood Mapping Framework, and the recent FHIMP funding program recommend that storms larger than the Regional Storm are modelled, such as the 500-year and 1000-year storms. To ensure future flood magnitudes are represented for both frequent and extreme storm events, climate models should be implemented into return period storms to assist with planning and infrastructure sizing, the range of return period storms modelled should be expanded to include up to the 1000-year storm. This framework will ensure flood risk is accurately quantified over a wide range of storm magnitudes to assist in assessing the future impacts of climate change within our watershed.

Funding Opportunities

Funding for floodplain mapping has not been available from the Province since the end of the Flood Damage Reduction Program (FDRP) in 1996 and the funding for such work has effectively been downloaded to municipalities. The federal government's role in flood mapping is depicted in Figure 2 below. In recent years, several federal funding programs for floodplain mapping have allowed GRCA to complete several studies that have improved and updated floodplain mapping in several key areas. This included the Wilmot and Graham Creek Floodplain Mapping updates through the NDMP program and additional updates for the NW Ganaraska River and Lovekin, Bouchette Point and Port Granby Creeks under the FHIMP program. Both programs allow local agencies to partner and commit funding support to apply under the 50-50 cost sharing framework.

With the federal NDMP program ending in 2022, the FHIMP program was initiated by Natural Resources Canada to continue to provide federal support to update flood risk mapping in Canada.

Federal role in Flood Mapping

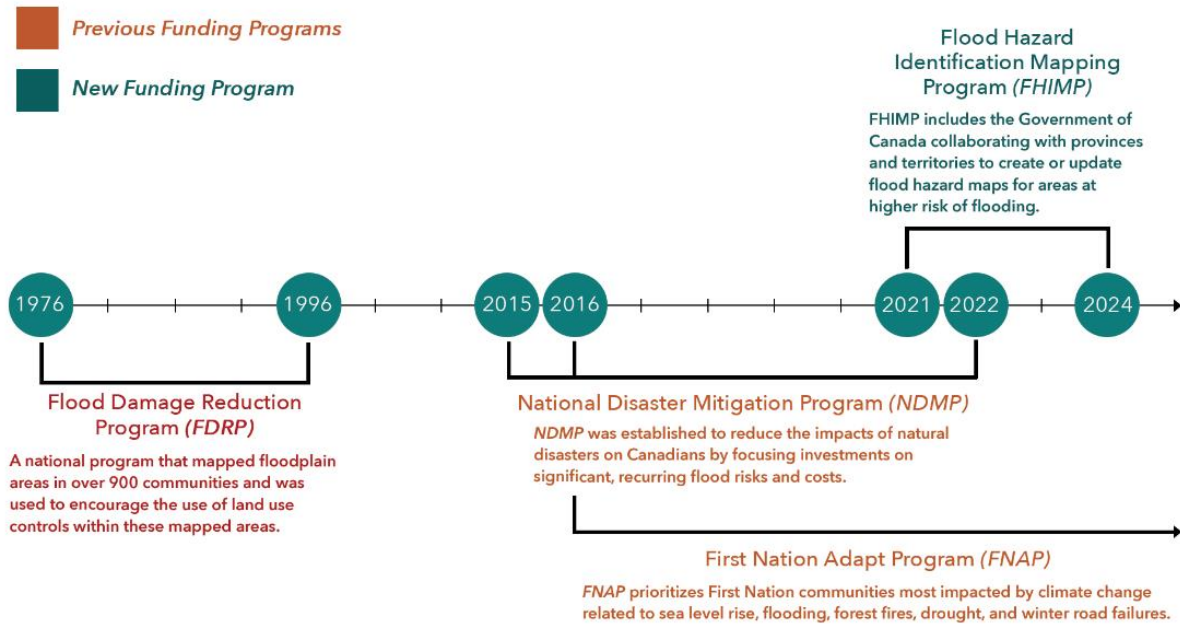


Figure 2 Federal Role in Flood Mapping (from <https://natural-resources.canada.ca>)

The previous National Disaster Mitigation Program (NDMP) was generally similar in its administration and 50-50 funding requirement and had six separate application intakes between 2015 and 2021. **Natural Resources Canada (NRCAN) has recently announced (October 2023) an extension to the Flood Hazard Identification and Mapping Program (FHIMP) through March of 2028.**

To facilitate potential future applications, it is recommended that projects on the priority list are scoped with preliminary budgets and consideration be given to placing half of the budget cost in a reserve fund by the benefitting municipality to ensure that the funding is available when an opportunity to leverage the funds arises (i.e. the federal FHIMP application window opens).

This will assist in avoiding difficulties associated with securing funding commitments from municipal partners within the short application timelines created once application intakes are announced.

Proposed Project Schedule 2024-2028

Despite separate scores for different portion within the same watercourse system, it is more cost effective to complete the entire watercourse within one study than to complete each reach or section in different studies. Based on the prioritization matrix, the following project schedule has been suggested for 2024 to 2028 (Table 3).

Table 3: Proposed Floodplain Mapping Project Schedule

Project	Year
Cobourg Creek (in Hamilton Township/Alnwick-Haldimand)	2024-2027
Spicer Creek/Covert Creek	2025
Wesleyville Creek	2025
West Gages Creek	2025
Cobourg Creek (2D assessment)	2025
Midtown Creek (2D Assessment - Elgin Rd to Lake)	2026
Foster Creek 2D Assessment - from CPR to CNR	2024
Foster Creek - merge 2015 and 2019 models in CGVD2013	2024
Ganaraska River (Rural Area)	2024-2028
Ganaraska River (Urban Area)	2024 (initiated and underway)
Gages Creek	2026-2028
East of Gages Creek Trib 5 (Apple Orchard Rd/Bob Carr Rd and Hwy 2)	2027
East of Gages Creek Trib 6 (Westwood Dr and CNR/CPR)	2027
Cobourg Creek (in Cobourg)	2026-2028
Midtown Creek	2026-2028
Brook Creek	2026-2028
Plainville Creek (Plainville to Rice Lake)	2027-2028

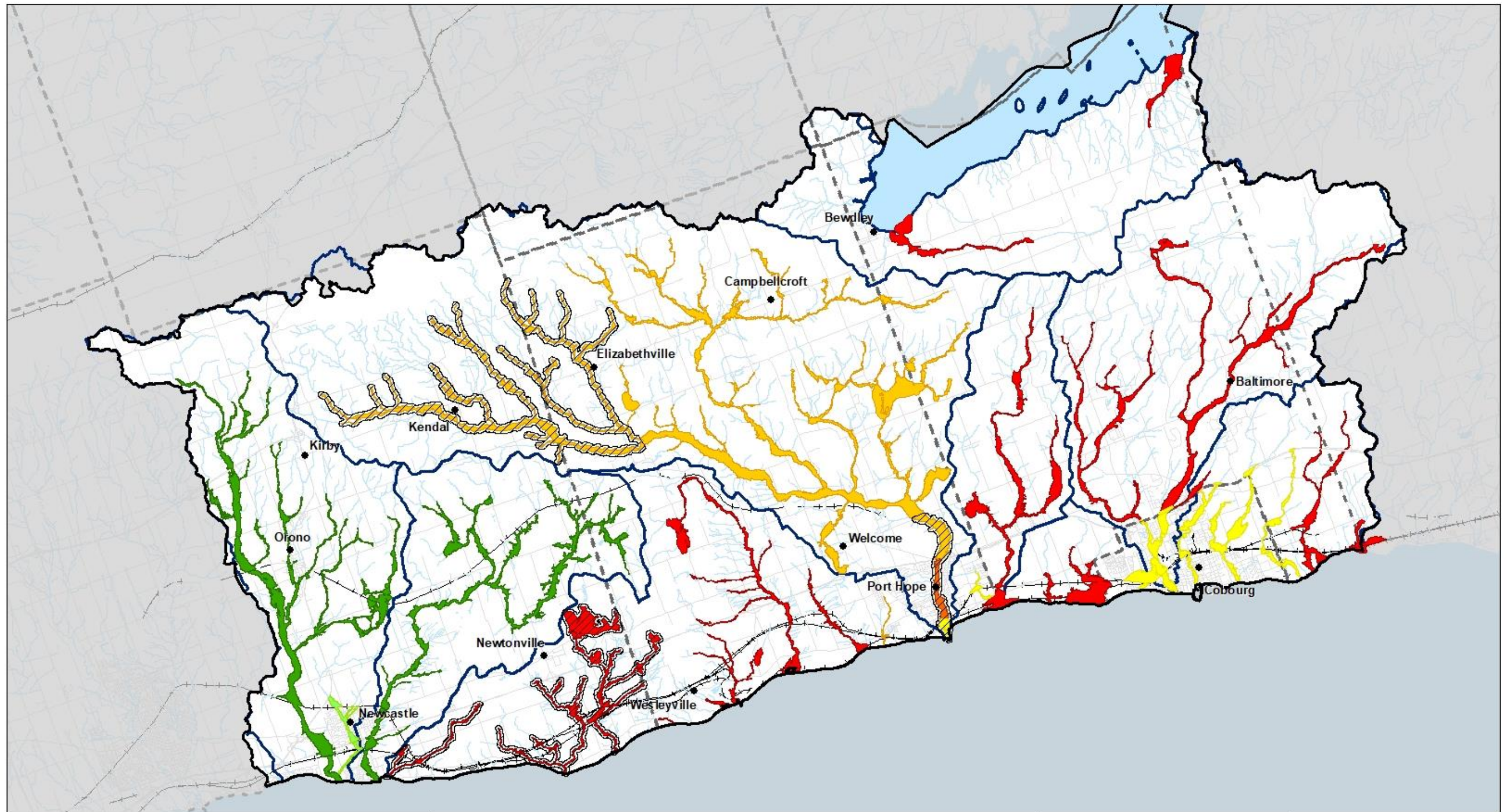
The above schedule will need to be discussed and refined with municipal staff to confirm respective priorities, review cost estimates for each project, and confirm resources available to leverage potential dollars through the federal FHIMP program before the funding ends in March of 2028.

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Appendix A: Map of Floodplain Studies by Date Completed



Ganaraska Region Conservation Authority - Floodplain Mapping
Floodplain Studies by Date Completed

- | | | | |
|----------------------|----------------------|-----------------------------|-------------|
| GRCA Boundary | Waterbody | Floodplain Study | 1990 - 1999 |
| Watershed Boundary | Watercourse | | 2000 - 2009 |
| Local Municipalities | Ontario Road Network | Year Study Completed | 2010 - 2019 |
| Update in Progress | Railway | 1970 - 1979 | 2020 - 2023 |
| | | 1980 - 1989 | |



0 900 1,800 3,600 5,400 7,200
 Meters

1:140,000

This map is for information purposes only and the Ganaraska Region Conservation Authority takes no responsibility for, nor guarantees, the accuracy of the information contained within the map.

Prepared by Ganaraska Region Conservation Authority, October 2023.

Produced using information provided by the Ministry of Natural Resources, GRCA and other municipal sources.

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STAFF REPORT – October 19, 2023

TO: Chair and Members of the Board of Directors

RE: 2024 Preliminary Budget and Municipal Levy

At the September Board of Directors meeting, the staff report outlining the 2024 budget criteria was approved. Staff has prepared the attached preliminary budget based on those criteria. The municipalities require a minimum 30 days' notice to consider the proposed municipal levies. In a non-election year, the Board meetings are scheduled for the 4th Thursday in November with no December meeting. The levy vote will take place at the November 23, 2023 Board of Directors meeting. The preliminary budget will continue to be discussed with staff of the Conservation Authority contacting the municipalities to review the proposed capital projects.

As a result of the approved criteria, the base levy was increased by 3.3% to \$16,459.80 and the overall levy was increased by 3.3%. An allowance has been built in for a cost of living increase of 3.3% increase in the salary grid to be effective January 1, 2024.

The Ministry of Natural Resources and Forestry has provided the adjustments to the current value assessments (CVA). The apportionment percentages provided are as follows:

	2023 CVA	2024 CVA	
Municipality of Clarington	51.7771	51.9430	↑
Town of Cobourg	20.3655	20.2782	↓
Township of Alnwick/Haldimand	0.9442	0.9433	↓
Township of Hamilton	10.5089	10.4369	↓
Municipality of Port Hope	16.1188	16.1134	↓
Township of Cavan Monaghan	0.1989	0.1990	↑
City of Kawartha Lakes	0.0867	0.0862	↓

The above percentages were calculated from current value assessment data provided by the Municipal Property Assessment Corporation (MPAC) and further revised based on the CA Levy Regulation (Ontario Regulation 670/2000 under the CA Act). The spreadsheets, which include population data, are provided to the Conservation Authorities by MPAC and apportioned based on the percentage of the area of each municipality within the CA jurisdiction.


The capital projects within the budget will be discussed with staff of the partnering municipalities and included within the final budget when the budget is presented for approval in 2024. Board members are encouraged to contact the CAO/Secretary-Treasurer to answer any questions in advance of the meeting. If a more in depth review of the budget or levy process and calculations is requested, a meeting to review the document prior to the board meeting can be arranged.

RECOMMENDATION:

THAT the Board of Directors receive the 2024 Preliminary Budget for information and,

FURTHER THAT the budget be forwarded to the watershed municipalities, indicating in the cover letter, that the vote to approve the 2024 levy will be taken at the November 23, 2023 Board of Directors meeting.

Prepared by:



Linda J. Laliberte, CPA, CGA
CAO/Secretary-Treasurer



**GANARASKA REGION
CONSERVATION AUTHORITY**

2024 PRELIMINARY BUDGET

*Clean Water, Healthy Land
For Healthy Communities*

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GANARASKA REGION CONSERVATION AUTHORITY

Established 1946

The objects of an Authority are to provide, in the area over which it has jurisdiction, programs and services designed for the purpose of furthering the conservation, restoration, development and management of natural resources in watershed(s).

Watershed Municipalities

The watershed covers an area of 935 square-kilometers and has a population of 75,606.

Municipality of Clarington
Township of Hamilton

Town of Cobourg
Township of Alnwick/Haldimand
Township of Cavan Monaghan

Municipality of Port Hope
City of Kawartha Lakes

2023 / 2024 Board of Directors

The Board of Directors usually meets the 3rd Thursday of every month or at the call of the Chair.

Township of Hamilton – Mark Lovshin*

Municipality of Port Hope – Vicki Mink**

Township of Alnwick/Haldimand – Joan Stover

Township of Cavan Monaghan – Lance Nachoff

Municipality of Clarington – Willie Woo

Municipality of Clarington – Margaret Zwart

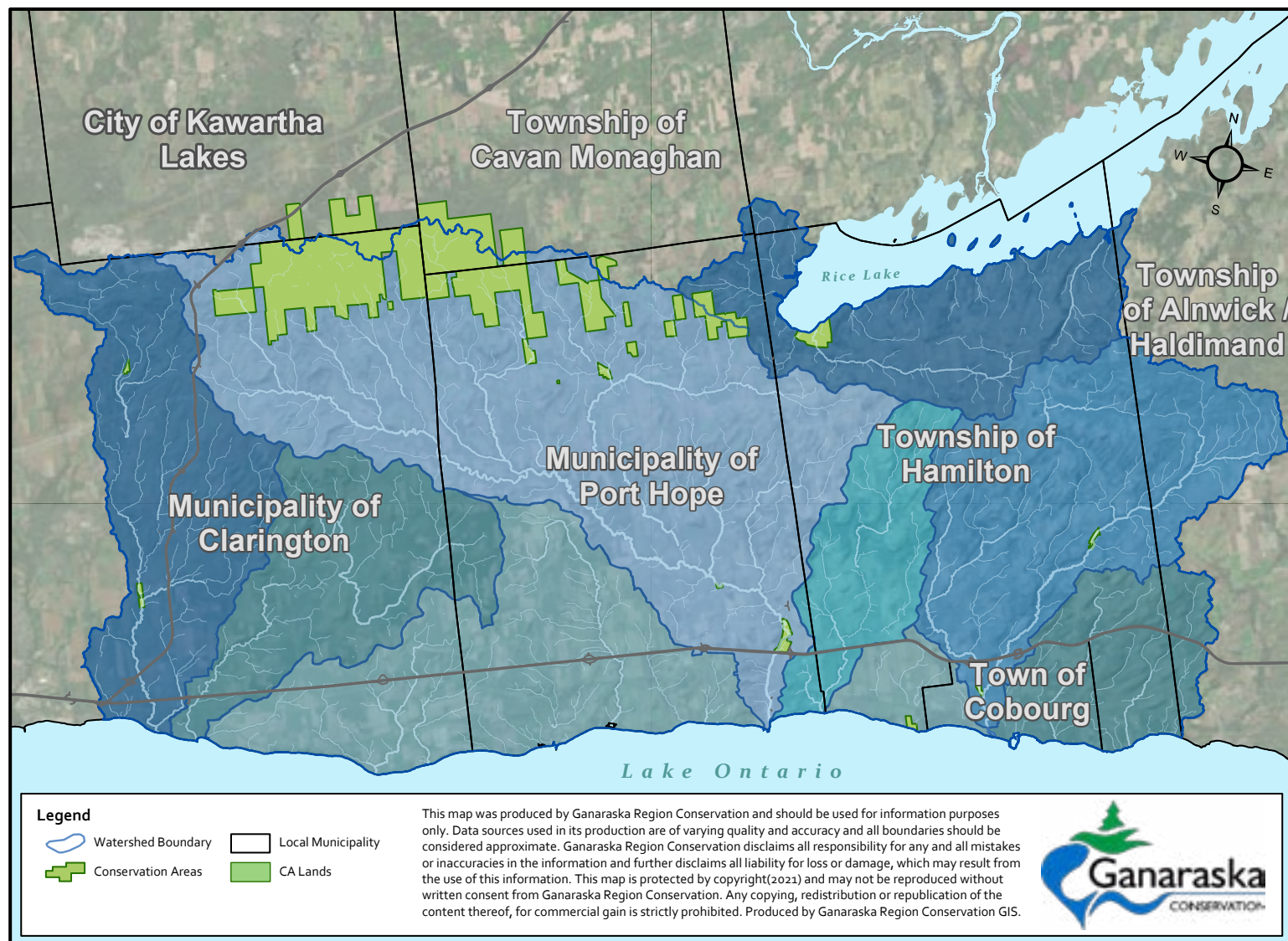
Town of Cobourg – Randy Barber

Town of Cobourg – Miriam Mutton

Municipality of Port Hope – Adam Pearson

City of Kawartha Lakes – Tracy Richardson

*Denotes Chair **Denotes Vice Chair



The Ganaraska Region Conservation Authority's Shared Vision:
Clean Water, Healthy Land For Healthy Communities



The Ganaraska Region Conservation Authority's mission is to enhance and conserve across the Ganaraska Region Watershed by serving, educating, informing and engaging.

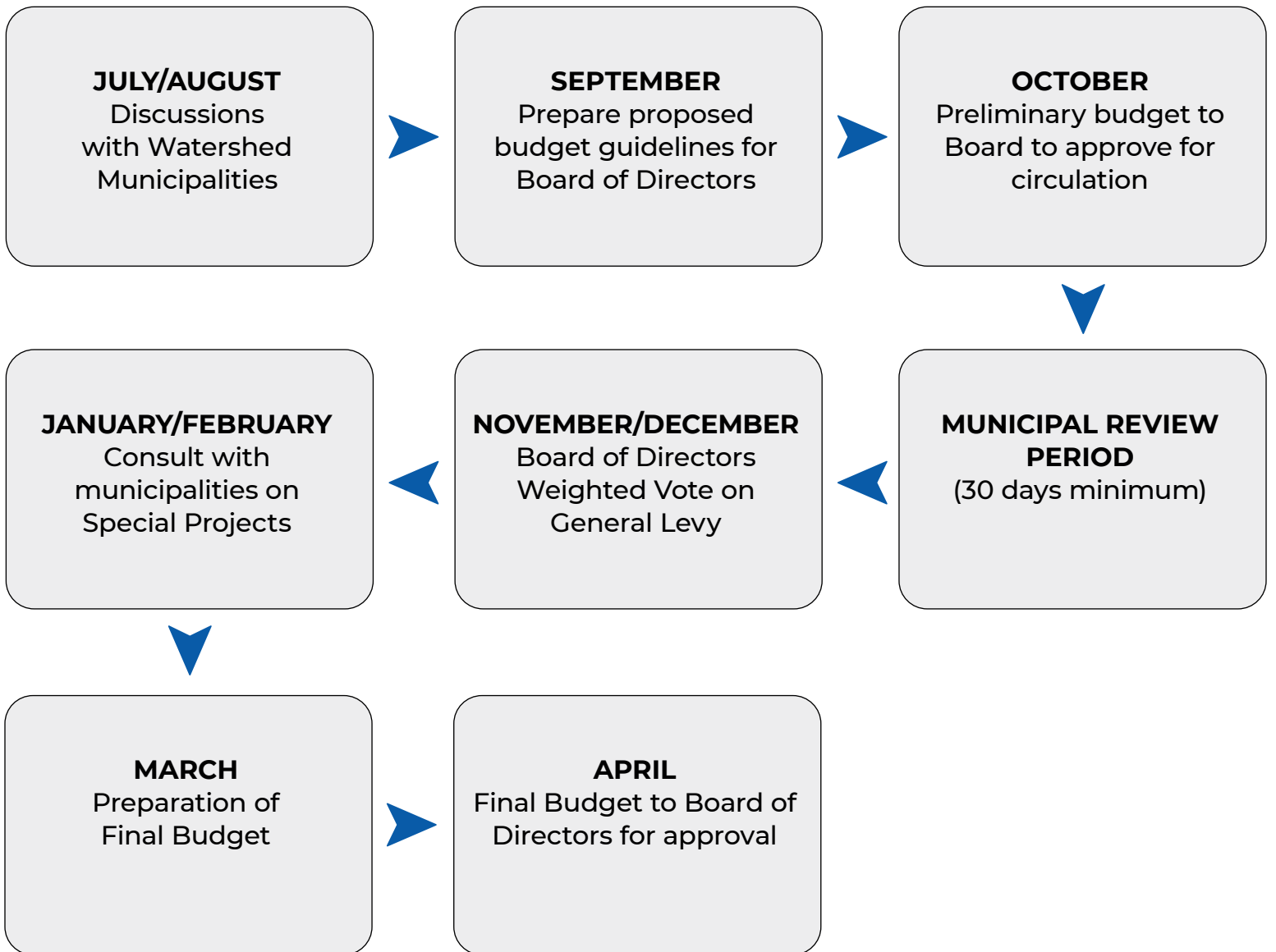
Our Shared Values

- To Explore is to Value Knowledge
- To Learn is to Value Collaboration
- To Lead is to Value Excellence
- To Evolve is to Value Innovation

GRCA 2023 / 2024 Committees

Ganaraska Forest Recreational Users Committee
Mark Gardiner (Chair), Matthew Robbins, Jim Pearson, Jennifer Jackman, Garry Niece, Randy Cunningham, Lisa Thompson, Amber Panchyshyn, Pam Julian, Carolyn Richards, Peter Wood, Steve Brownell, Marven Whidden, Maureen MacDonald, Lance Nachoff (Board Representation)

THE BUDGET PROCESS



2024 BUDGET PRESENTATION FORMAT



The Ganaraska Region Conservation Authority (GRCA) has 5 program and services departments:

- Watershed Management and Health Monitoring
- Environmental Advisory Services
- Watershed Stewardship
- Conservation Lands Management
- Corporate Services

The departments are further reported in accordance with the categorization as required by the Regulation 687/21 as explained below.

Conservation Authorities Act (CA Act) Regulations

In October, 2021, the Province of Ontario released Phase 1 regulations designed to implement amendments to the CA Act.

- Ontario Regulation 686/21: Mandatory Programs and Services
- Ontario Regulation 687/21: Transition Plans and Agreements for Programs and Services
- Ontario Regulation 688/21: Rules of Conduct in Conservation Areas

Categorization of Programs and Services as per Regulation 687/21:

1. Mandatory programs and services

Defined in regulation; where municipal levy could be used without any agreement.

2. Municipal programs and services

Programs and services at the request of a municipality (with municipal funding through an MOU/agreement).

3. Other programs and services

Programs and services an Authority determines are advisable (use of municipal levy requires an MOU/agreement with participating municipalities).

The budget columns report on the dollar amounts for the previous budget figures and the actual amount reported at year end and the proposed budget figures for the current year.

As with previous budgets, the budget figures may have been adjusted throughout the year as a result to reflect unexpected decreases/increases in the funding revenues. In cases where the funding received for a capital project is not spent, those funds are carried forward as deferred revenue.

The Phase 2 Regulations were finalized under the Conservation Authorities Act in April 2022.

The programs of the GRCA are classified into 5 areas. The budget format reflects the program areas into categories 1, 2, and 3 which are reflected in the Program and Services Inventory which has been attached at the end of the budget. This inventory was finalized and approved by the Board of Directors at the September 21, 2023 meeting.

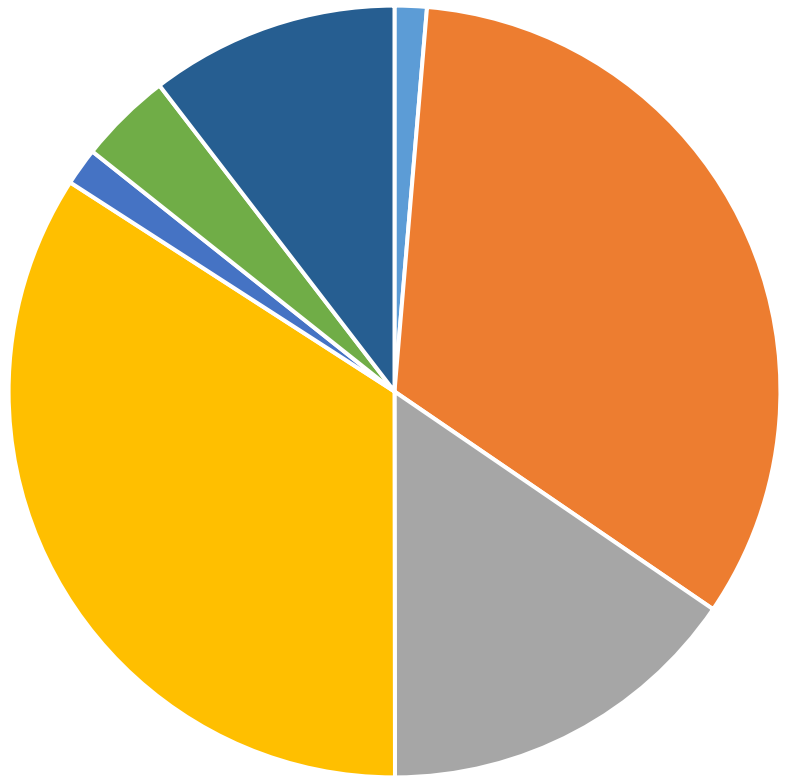
2024 PRELIMINARY BUDGET SUMMARY

Ganaraska Conservation's proposed budget for 2024 is \$3,855,496. The following pages provide context on the revenues and expenditures, a budget breakdown, and a break down of the levy for each watershed municipality.

2024 REVENUES

- Provincial Section 39 funding of \$51,863
- The general levy proposed increase is 3.3% and includes a minimum levy of \$16,459.79 for a total general levy of \$1,279,855.
- Municipal benefitting levy totals \$595,273
- Self generating revenue totals \$1,315,995
- Other grants of \$60,600
- Funding from capital asset reserve of \$150,000
- Other revenue totals \$401,910
- Total Revenue \$3,855,496

- Provincial Section 39
- General Levy
- Municipal Benefitting Levy
- Self-Generating
- Other Grants
- Funding from Capital Assets
- Other Revenue



2024 PRELIMINARY BUDGET SUMMARY

SOURCES OF REVENUE

Provincial Section 39 Funding

The Ontario Ministry of Natural Resources and Forestry provides funding to the Ganaraska Region Conservation Authority in the amount of \$51,863. This amount is approximately 50% of the funding that was provided for over the last 20 years and has remained at this reduced amount since 2019. This funding supports the mandated flood forecasting and warning programs.

Municipal General Levy

The municipal general levy is funding provided by municipalities to support category 1 programs and services such as enabling services of corporate services, low water response, environmental monitoring and conservation land expenses for recreational uses.

Municipal Benefitting Levy

Municipal benefitting levy is funding that supports benefitting or special projects which are projects that are carried out for specific watershed municipalities. Such projects are normally capital projects and may be shared by two or more municipalities within the conservation authority jurisdiction.

Self Generating Revenue

Self generating revenue includes user fees for planning services and are set to recover but not exceed the costs associated with administering and delivering these services on a program basis including site inspections, legal inquiries.

Ganaraska Forest membership and day uses as well as bookings at the Forest Centre for education, weddings and camping. Special events, leasing lands and timber management are also included.

Other Grants

Other grants include employment programs, as well as grants from other agencies such as the Greenbelt Foundation.

Funding from Capital Assets Reserve

Funding is set aside each year, \$183,976.06 in 2024, from the associated program areas and placed in a reserve that is to be utilized to fund the replacement of the physical assets of the GRCA.

Other Revenue

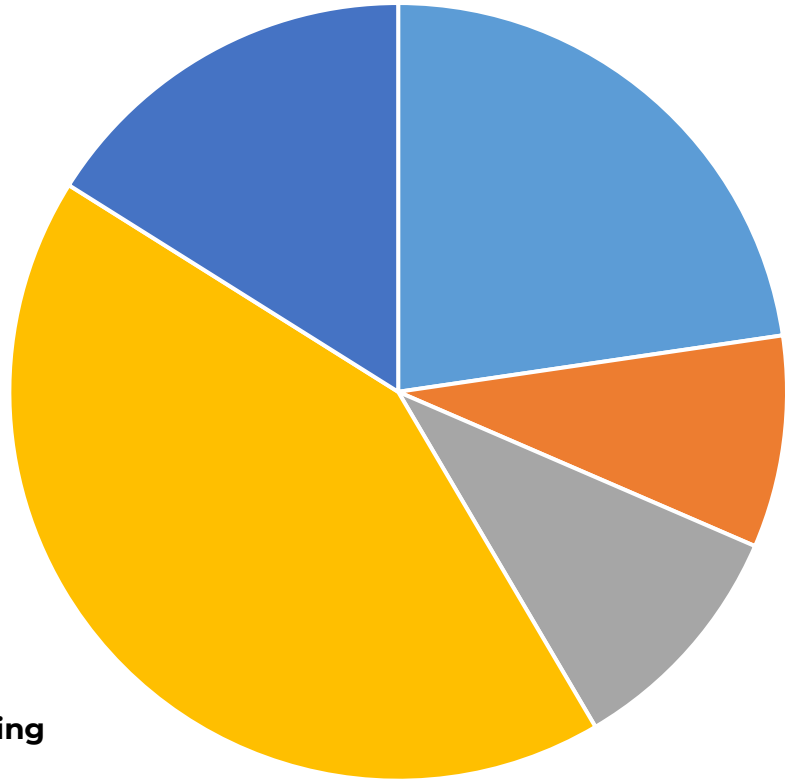
Other revenue includes funding of projects that Ganaraska Conservation partners on with other conservation authorities, municipalities and counties that are outside of the GRCA jurisdiction.

Administration fees, which are fees charged for payroll costs and overhead against a program or project, are also reported.

2024 PRELIMINARY BUDGET SUMMARY

EXPENDITURES

- Watershed Management & Health Monitoring
- Environmental Advisory
- Watershed Stewardship
- Conservation Land Management
- Corporate Services



Watershed Management and Health Monitoring

Costs required to develop the framework and management strategy to provide a rational approach to natural systems protection, restoration and use.

Environmental Advisory Services

Costs associated with providing environmental review of development proposals submitted by municipalities, general public and developers.

Watershed Stewardship

Costs associated with providing services and/or assistance to watershed residents and municipalities on sound environmental practices that will enhance, restore or protect properties.

Conservation Land Management

Costs associated with land or buildings either owned or managed by the Authority and may have active programming on conservation lands.

Corporate Services

Costs associated with the management and programs and services delivery.

WATERSHED MANAGEMENT & HEALTH MONITORING

Watershed management and health monitoring program costs are those required to develop the framework and management strategy to provide a rational approach to natural systems protection, restoration and use. Programs within this area are in Category 1 and 2. Flood protection services fall

within this department, which include costs associated with providing watershed residents with an effective and efficient system that will reduce their exposure to the threat of flood damage and loss of life.

FLOOD PROTECTION SERVICES

Flood Forecasting and Warning – **Category 1:**

Procedures, undertaken by the Conservation Authority, required to reduce the risk of loss and property damage due to flooding through the forecasting of flood events and issuing of flood warnings, alerts and advisories to prepare those who must respond to the flood event. This is currently funded about 35% by the province and 65% by general levy.

Flood/Erosion Control Structures – **Category 1:**

Preventative maintenance to the flood and erosion control structures throughout the watershed.

Floodplain Regulations – Category 1: Includes costs associated with implementing the fill and floodplain regulations required ensuring the integrity of the watershed floodplain management system.

Floodplain Mapping & Flood Mitigation Projects

– **Category 1:** Floodplain mapping improves flood management response and assists municipalities to understand their flood risk.

GIS Services & Remote Sensing – **Category 2:**

GRCA staff continue with these partnerships.

Resource Inventory and Environmental Monitoring

– **Category 1:** The groundwater program, funded by the Region of Durham, Municipality of Port Hope and the Township of Hamilton is also reflected under this area.

Category 2: The Municipality of Clarington, with Port Hope, Cobourg and Hamilton are funding watershed monitoring.

Natural Heritage Mapping – Category 2: A natural heritage mapping for the watershed is continuing using funds from the Municipality of Clarington.

Source Protection Planning – **Category 1:**

GRCA is part of the Trent Conservation Coalition (TCC) Source Protection Program, at protecting the sources of water (rivers, lakes, aquifers) used for municipal drinking water systems.

Watershed Plans & Strategies – **Category 2:**

Projects undertaken by the Conservation Authority to provide a broad understanding of ecosystem function and status and to make recommendations for appropriate environmental resource management, land use change, land management change, or redevelopment and restoration, on a watershed basis.

WATERSHED MANAGEMENT & HEALTH MONITORING



Revenues

Revenue Sources	2023 Budget	2024 Budget
Section 39 Provincial Funding	51,863	51,863
General Levy	176,446	190,660
Municipal Benefitting Levy	483,971	337,459
Self Generating Revenue	65,000	65,000
Other Grants	139,800	8,800
Funding From Capital Asset Reserve	9,000	0
Other Revenue	416,550	231,500
Totals	1,342,630	885,282

WATERSHED MANAGEMENT & HEALTH MONITORING

Expenditures

FLOOD PROTECTION SERVICES Category 1 - Mandatory Services	2023 Budget	2024 Budget
Flood Forecasting & Warning		
Staffing	105,250	108,604
Expenses	32,000	38,500
Capital Asset Replacement	21,977	13,405
TOTAL	159,227	160,509
Flood Control Structures		
Staffing	9,900	10,200
Expenses	23,200	18,200
Capital Asset Replacement	3,588	3,706
TOTAL	36,688	32,106
Erosion Control Structures		
Staffing	1,000	1,000
Expenses	0	0
TOTAL	1,000	1,000
Floodplain Regulations		
Staffing	88,050	90,950
Expenses	3,800	3,800
Capital Asset Replacement	1,504	1,554
TOTAL	93,354	96,304
Dam Safety		
Capital Asset Replacement	7,240	7,479
TOTAL	7,240	7,479
Natural Hazard Mapping:		
<i>Clarrington Floodline Update</i>		
Staffing	15,512	16,710
Expenses	1,800	1,800
TOTAL	17,312	18,510

WATERSHED MANAGEMENT & HEALTH MONITORING

Expenditures

Category 2 - Municipal Services	2023 Budget	2024 Budget
Haliburton Floodplain Mapping		
Staffing	205,550	45,000
Expenses	50,850	10,000
TOTAL	256,400	55,000
Clarington NDMP Flood Plain Mapping Update:		
<i>Graham Creek</i>		
Staffing	5,000	
Expenses	0	
TOTAL	5,000	
Brook Creek Flood Mitigation		
Staffing	21,500	
Expenses	100	
TOTAL	21,600	
Durham Risk Assessment		
Staffing	3,500	
Expenses	0	
TOTAL	3,500	
Durham Floodplain Mapping Updates (FHIMP)		
Staffing	106,000	10,000
Expenses	24,000	0
TOTAL	130,000	10,000
ORCA Shared Projects		
<i>Byersville Floodplain Mapping</i>		
Staffing	16,650	10,000
Expenses	63,000	0
TOTAL	79,650	10,000
<i>Jackson Creek</i>		
Staffing	25,000	5,000
TOTAL	104,650	15,000

WATERSHED MANAGEMENT & HEALTH MONITORING

Expenditures

GIS SERVICES & REMOTE SENSING Category 2 - Municipal Services		2023 Budget	2024 Budget
Storm Sewer Asset Management			
Staffing		30,500	31,000
Expenses		2,500	2,000
Capital Asset Replacement		0	0
TOTAL		33,000	33,000
GIS SERVICES :			
<i>Other CA's & Partners</i>			
Staffing		22,325	22,325
Expenses		5,175	5,175
TOTAL		27,500	27,500
Peterborough DEM			
Staffing		4,500	2,000
Expenses		8,500	6,000
TOTAL		13,000	8,000
Brighton Remote Sensing			
Expenses		15,000	
TOTAL		15,000	
RESOURCE INVENTORY & ENVIRONMENTAL MONITORING Category 1 - Mandatory Services		2023 Budget	2024 Budget
Groundwater			
Staffing		55,270	55,854
Expenses		18,963	18,940
Capital Asset Replacement		692	715
TOTAL		74,925	75,509
Water Quality Sampling (PWQMN)			
Staffing		5,850	6,050
Expenses		50	50
TOTAL		5,900	6,100
Low Water Response			
Staffing		3,900	4,025
Expenses		0	0
TOTAL		3,900	4,025

WATERSHED MANAGEMENT & HEALTH MONITORING



Expenditures

RESOURCE INVENTORY & ENVIRONMENTAL MONITORING		
Category 2 - Municipal Services	2023 Budget	2024 Budget
Watershed Monitoring		
Staffing	43,048	43,563
Expenses	38,550	38,550
Capital Asset Replacement	14,702	15,187
TOTAL	96,300	97,300
Natural Heritage Mapping		
Staffing	33,820	34,626
Expenses	2,314	2,314
TOTAL	36,134	36,940
SOURCE PROTECTION PLANNING		
Category 1 - Mandatory Services	2023 Budget	2024 Budget
Source Protection Planning - TCC		
Staffing	125,000	125,000
Expenses	1,000	1,000
TOTAL	126,000	126,000
Category 2 - Municipal Services	2023 Budget	2024 Budget
Hamilton Township RMO		
Staffing	2,000	2,000
TOTAL	2,000	2,000

WATERSHED MANAGEMENT & HEALTH MONITORING



Expenditures

WATERSHED PLANS & STRATEGIES		
Category 2 - Municipal Services -		
Risks of Natural Hazards		
	2023 Budget	2024 Budget
Climate Change Strategy		
Staffing	35,000	35,000
Expenses	15,000	15,000
TOTAL	50,000	50,000
Watershed Report Card Update		
Staffing	18,800	18,800
Expenses	4,200	4,200
TOTAL	23,000	23,000
TOTAL WATER MANAGEMENT & HEALTH MONITORING	1,342,630	885,282

PROGRAMS & SERVICES



ENVIRONMENTAL ADVISORY SERVICES

The environmental advisory services program costs are those associated with providing environmental review of development proposals submitted by

municipalities, general public and developers. General levy and plan review fees for stormwater management fund this service area.

Municipal/Public Plan Input & Review – Category 1: Includes municipal/public official plan review, comprehensive zoning bylaws, secondary plan review and general planning studies.

land division review, site plans and zoning bylaws and variances. Ganaraska Region Conservation Authority also provides engineering services to neighbouring conservation authorities on a fee for service basis.

Development Plan Input & Review – Category 1: Includes development driven review of plans of subdivision and condos, official plan amendments,

Watershed Ecology – Category 2: Includes the ecological program of the Authority.

ENVIRONMENTAL ADVISORY SERVICES

Revenues

Revenue Sources	2023 Budget	2024 Budget
Section 39 Provincial Funding	0	0
General Levy	86,888	93,917
Municipal Benefitting Levy	50,000	50,100
Self Generating Revenue	156,000	156,000
Other Grants	0	0
Funding From Capital Asset Reserve	0	0
Other Revenue	43,000	43,000
Totals	335,888	343,017

Expenditures

ENVIRONMENTAL ADVISORY SERVICES		
Category 1 - Mandatory Services	2023 Budget	2024 Budget
Municipal/Public Plan Input & Review		
Staffing	76,400	78,911
Expenses	2,200	2,200
Capital Asset Replacement	2,053	2,121
TOTAL	80,653	83,232
Development Plan Review		
Staffing	133,282	137,664
Expenses	69,900	69,900
Capital Asset Replacement	2,053	2,121
TOTAL	205,235	209,685
Category 2 - Municipal Services	2023 Budget	2024 Budget
Watershed Ecology		
Staffing	34,000	34,223
Expenses	16,000	15,665
Capital Asset Replacement	0	212
TOTAL	50,000	50,100
TOTAL ENVIRONMENTAL ADVISORY SERVICES	335,888	343,017

PROGRAMS & SERVICES



WATERSHED STEWARDSHIP

The watershed stewardship program costs are those associated with providing and/or assistance to watershed residents on sound environmental

practices that will enhance, restore or protect their properties. Watershed Stewardship is classified as Category 3 in the Programs and Services Inventory.

LAND STEWARDSHIP

Clean Water - Healthy Land

The Clean Water-Healthy Land program is a stewardship program funded by Durham Region, Trees Ontario, Oak Ridges Moraine Foundation and landowners.

For Durham Region landowners, this program is subsidized by the Region of Durham. This program is also offered by the Municipality of Port Hope and

the Township of Hamilton for the landowners, within the municipalities in partnership with the Conservation Authority.

Partner Projects includes the partnership with the Greater Golden Horseshoe Conservation Authorities Coalition (GGH CAC).

WATERSHED STEWARDSHIP



Revenues

Revenue Sources	2023 Total	2024 Budget
Section 39 Provincial Funding	0	0
General Levy	0	0
Municipal Benefitting Levy	274,714	207,714
Self Generating Revenue	97,100	97,100
Other Grants	26,800	26,800
Funding From Capital Asset Reserve	0	0
Other Revenue	23,810	23,810
Totals	422,424	355,424

Expenditures

LAND STEWARDSHIP Category 2 - Municipal Services	2023 Total	2024 Budget
Durham Collaborative Tree Program		
Staffing	20,000	24,500
Expenses	32,000	33,000
Other CA funds (transferred)	113,000	40,500
TOTAL	165,000	98,000
Partner Projects		
OPG Projects	15,510	15,510
GGH CAC	2,500	2,500
TOTAL	18,010	18,010

WATERSHED STEWARDSHIP



Expenditures

CLEAN WATER - HEALTHY LAND	2023 Total	2024 Budget
Financial Assistance Program		
Expenses	12,000	12,000
Landowner Program Projects	95,214	95,214
TOTAL	107,214	107,214
Category 3 - Non-Mandatory Services	2023 Total	2024 Budget
Tree Plant		
Staffing	13,500	13,500
Expenses	83,067	83,049
Capital Asset Replacement	533	551
	97,100	97,100
TOTAL	204,314	204,314
OPG Projects		
Staffing	0	0
Expenses	8,300	8,300
TOTAL	8,300	8,300
Fisheries Review		
Staffing	12,339	12,339
Expenses	14,015	14,015
Capital Asset Replacement	446	446
TOTAL	26,800	26,800
TOTAL WATERSHED STEWARDSHIP	422,424	355,424

PROGRAMS & SERVICES



CONSERVATION LAND MANAGEMENT

This program area includes all expenses associated with land or buildings either owned or managed by

the Authority. This area is divided into passive recreation and programmed recreation.

Passive Recreation – Category 1: The costs associated with lands and buildings that do not have active programming. The expenses included are the costs for owning or managing the land.

Programmed Recreation – The direct costs associated with delivering active programming on Conservation Authority lands. This includes the Ganaraska Forest Centre and the Ganaraska Forest.

Ganaraska Forest Centre – Category 3: For over forty years, the Ganaraska Region Conservation Authority has provided a unique outdoor education experience to elementary and secondary students at the Ganaraska Forest Centre. The outdoor education facility offers both day and overnight education programming.

Such programs offered are: map reading, orienteering, forest studies and stream and pond study. As well, the facility is rented out to Scouts and Girl Guides for weekend use.

Ganaraska Forest – Category 1 and 3: On April 1st, 1997, the Conservation Authority took back management of the Ganaraska Forest from the Ministry of Natural Resources. Revenue from the forest comes from the sale of timber and membership fees.

For 2024, the revenue from timber contracts are estimated at \$269,575.00. It is anticipated that the damage caused by the derecho windstorm will impact future forest timber management revenues for several years.

The partnership with Treetop Trekking continues and revenues are estimated at \$36,000.00.

CONSERVATION LAND MANAGEMENT



Revenues

Revenue Sources	2023 Total	2024 Budget
Section 39 Provincial Funding	0	0
General Levy	501,827	514,290
Municipal Benefitting Levy	0	0
Self Generating Revenue	988,400	997,895
Other Grants	93,600	25,000
Funding From Capital Asset Reserve	151,300	100,000
Other Revenue	22,000	22,000
Totals	1,757,127	1,659,185

CONSERVATION LAND MANAGEMENT



Expenditures

PASSIVE RECREATION		
Category 1 - Mandatory Services	2023 Budget	2024 Budget
Staffing	201,348	201,365
Expenses	90,900	91,415
Capital Asset Replacement	25,140	15,640
TOTAL	317,388	308,420
GANARASKA FOREST		
Category 1 - Mandatory Services <i>(Forest Recreation)</i>		
Category 3 - Non-Mandatory Services <i>(Timber Management)</i>	2023 Budget	2024 Budget
Staffing	478,000	477,251
Expenses	322,150	264,300
Capital Asset Replacement	129,439	129,894
TOTAL	929,589	871,445
GANARASKA FOREST CENTRE		
Category 3 - Non-Mandatory Services	2023 Budget	2024 Budget
Staffing	249,440	267,947
Expenses	168,562	168,402
Capital Asset Replacement	82,398	42,971
TOTAL	500,400	479,320
TOTAL CONSERVATION LAND MGMT	1,747,377	1,659,185

PROGRAMS & SERVICES



CORPORATE SERVICES

This budget area provides the leadership and management in the delivery of all programs and services. It is composed of the wages and benefits of staff of the Conservation Authority, whose main function is to provide coordination, support and

services to all programs rather than specific programs. All expenses associated with the Board of Directors are directed to this area. As well, expenses associated with the operations of the administration building.

Programs and Services Inventory:

Corporate Services is classified as enabling services requiring levy support.

Program Description: Key assistance provided to all departments of the conservation authority, board of directors, member municipalities, and the general public to enable Ganaraska Conservation to operate in an accountable, transparent, efficient, and effective manner.

Specific items include:

Corporate/Finance Management - includes all administrative and financial staff wages, benefits and expenses, general membership expenses as well as corporate expenses for the Conservation Authority, which includes the levy to Conservation Ontario.

Office Services – includes all wages and benefits for IT staff as well as expenses, supplies, equipment, computer services, maintenance, and utilities for the main administrative building for the various program areas.

Corporate Communications – includes wages and benefits for staff working on communication projects as well as community and public relations expenses, website maintenance and any information costs.

All publications, advertising and Authority staff uniforms are included in this program area.

CORPORATE SERVICES

Revenues

Revenue Sources	2023 Budget	2024 Budget
Section 39 Provincial Funding	0	0
General Levy	473,808	480,988
Municipal Benefitting Levy	0	0
Self Generating Revenue	0	0
Other Grants	0	0
Funding From Capital Asset Reserve	85,000	50,000
Other Revenue	81,600	81,600
Totals	640,408	612,588

Expenditures

Support Services	2023 Budget	2024 Budget
CORPORATE/FINANCE MANAGEMENT		
Staffing	263,600	269,485
Expenses	59,360	65,560
TOTAL	322,960	335,045
OFFICE SERVICES		
Staffing	26,500	26,000
Expenses	102,696	105,496
Capital Asset Replacement	121,077	76,723
TOTAL	250,273	208,219
CORPORATE COMMUNICATIONS		
Staffing	60,000	61,800
Expenses	6,100	7,100
Capital Asset Replacement	400	424
TOTAL	66,500	69,324
TOTAL CORPORATE SERVICES	639,733	612,588



RESERVES AND OPERATING SURPLUS

The Ganaraska Region Conservation Authority has two reserves.

Capital Asset Replacement Reserve

The Ganaraska Region Conservation Authority developed a Capital Asset Replacement plan in 2016. The goal of every capital asset management plan is to define the use of assets in order to streamline productivity and delivery with minimal loss of capital.

This reserve will replace the equipment reserve that had been previously established in 1992 and does not include any grant dollars. This reserve is allocated to major maintenance and replacement of the GRCA capital assets. This reserve is an essential part of GRCA’s ongoing fiscal responsibility framework, as it guides the purchase, maintenance, and disposal of every asset GRCA needs in order to conduct business.

Forest Purchase Reserve

This reserve was established in 2001 with a \$10,000.00 donation by the Township of Cavan Monaghan to be used for costs associated with a land purchase within the Peterborough County jurisdiction.

Operating Surplus/Deficit

The Ganaraska Region Conservation Authority’s operating surplus is attributable to the change in recording tangible capital assets at cost in accordance with the recent change in Public Sector Accounting Board (PSAB) rules.

GRCA 2024 PROPOSED GENERAL LEVY



Municipal Partner	2023 Levy	2024 Levy
Municipality of Clarington	635,528.22	658,596.76
Town of Cobourg	251,353.43	258,545.20
Municipality of Port Hope	199,414.81	205,927.32
Township of Alnwick/Haldimand	13,824.17	14,269.01
Township of Hamilton	130,803.78	134,210.69
Township of Cavan Monaghan	4,708.90	4,865.56
City of Kawartha Lakes	3,336.65	3,440.45

PROGRAMS & SERVICES INVENTORY

Program Area	Program/Service & Sub-services	Description	Category (1,2,3)
Support Services			
<i>Program Description: Key assistance provided to all departments of the conservation authority, board of directors, member municipalities and the general public to support Ganaraska Conservation to operate in an accountable, transparent, efficient and effective manner.</i>			
CS	Corporate Services	Administrative, human resources, operating and capital costs which are not directly related to the delivery of any specific program or service, but are the overhead and support costs of a conservation authority. Includes health and safety program, overseeing programs and policies.	1
CS	Financial Management	Annual budget, accounts payable and receivable, payroll, financial analysis, financial audit, administration of reserves and investments, financial reports for funding agencies, preparing and submitting reports to CRA, benefits program administration.	1
CS	Legal Expenses	Costs related to agreements/contracts, HR, etc.	1
CS	Governance	Supporting CA Boards, Advisory Committees, Office of CAO/ST	1
CS	Communications & Outreach	Public awareness-natural hazards, flood forecasting and warning, permitting requirements, natural hazard identification, mitigation, readiness and response, governance, policy, municipal and public relations and engagement, conservation lands.	1
CS	Administration Buildings	Administrative office and millennium building used to support staff, programs, and services. Includes utilities, routine and major maintenance, property taxes. Included is a charge out for capital asset replacement.	1
CS	Information Technology Management/ GIS	Data management, records retention. Development and use of systems to collect and store data and to provide spatial geographical representations of data. Included is a charge out for capital asset replacement.	1

PROGRAMS & SERVICES INVENTORY

Program Area	Program/Service & Sub-services	Description	Category (1,2,3)
<p>Natural Hazard Management Program <i>Program Description: Conservation Authorities (CAs) are the lead provincial agencies on Natural Hazard issues. The goal is to protect life and property from flooding and erosion. This watershed-wide, comprehensive program includes development applications and permits, municipal plan input and review, environmental planning and policy, flood forecast and warning, flood and erosion control infrastructure, technical studies, ice management, education, and public awareness.</i></p>			
WMHM	Section 28 Permit Administration	Reviewing and processing permit applications, associated technical reports, site inspections, communication with applicants, agents, and consultants and legal costs. Violations also fall under this category.	1
EAS	Municipal Plan Input & Plan Review	Technical information and advice to municipalities on circulated municipal land use planning applications (Official Plan and Zoning By-law Amendments, Subdivisions, Consents, Minor Variances). Input to municipal land-use planning documents (OP, Comprehensive ZB, Secondary plans) related to natural hazards, on behalf of Ministry of Natural Resources and Forestry (MNR), delegated to CAs (1983). Input to the review, approval processes under other applicable law, with comments related to natural hazards, wetlands, watercourses, and Sec. 28 permit requirements.	1
WMHM	Flood Forecasting & Warning	Daily data collection and monitoring of weather forecasts, provincial and local water level forecasts, watershed conditions, snow surveys, flood event forecasting, flood warning, communications and response and equipment maintenance.	1
WMHM	Flood & Erosion Control Infrastructure Operation & Management	Water and erosion control infrastructure operations and management. Includes all water management structures (flood control, dams and channels, berms, erosion control, etc.) that are annually inspected, and routine maintenance work completed. Included is a charge out for capital asset replacement.	1

PROGRAMS & SERVICES INVENTORY

Program Area	Program/Service & Sub-services	Description	Category (1,2,3)
Natural Hazard Management Program			
WMHM	Flood & Erosion Control Infrastructure Operation & Management	Major maintenance on flood and erosion control structures as required. Projects are dependent on Water and Erosion Control Infrastructure (WECI) funding from the province and support from our municipal partners.	1
WMHM	Flood & Erosion Control Infrastructure Operation & Management	Major maintenance on flood and erosion control structures as required. Projects are dependent on Water and Erosion Control Infrastructure (WECI) funding from the province and support from our municipal partners.	1
WMHM	Low Water Response	Conditions monitoring and analysis. Technical and administrative support to the Water Response Team representing major water users and decision makers, who recommend drought response actions.	1
WMHM	Information Management	Data collection, mapping, data sets, watershed photography. Development and use of systems to collect and store data and to provide spatial geographical representations of data. This includes our geographical information systems and support.	1
WMHM	Technical Studies & Policy Review	Studies and projects to inform natural hazards management programs including floodplain management, watershed hydrology, regulations areas mapping update, flood forecasting system assessment, floodplain policy, Lake Ontario shoreline management. These projects often for a specific number of years and are distributed over time as human resources and funding is available.	1
CL	Natural Hazards Communications, Outreach & Education	Promoting public awareness of natural hazards, including flooding, drought, and erosion. Attending public events, supplying materials. Social media services. Media relations. Educate elementary school students through the Spring Water Awareness program about the danger of floodwaters, dangers of dams, etc.	1

PROGRAMS & SERVICES INVENTORY



Program Area	Program/Service & Sub-services	Description	Category (1,2,3)
<p>Provincial Water Quality & Quantity Monitoring <i>Program Description: Ganaraska Conservation, in partnership with Ministry of Environment, Climate Change and Parks (MECP), has established long term sites to monitor surface and ground water conditions as well as an investment into long-term monitoring of climate change trends.</i></p>			
WMHM	Provincial Water Quality Monitoring Network (PWQMN)	CA/MECP partnership for stream water quality monitoring at 9 sites. Staff take water samples and MECP does lab analysis and data management. Information is used for watershed report cards and stewardship project prioritization.	1
WMHM	Provincial Groundwater Monitoring Network (PGMN)	A long-standing CA/MECP partnership for groundwater level and quality monitoring at 17 stations. Costs include sampling, data collection, analysis, data management and reporting. MECP funded network installation and continues to fund equipment replacements. Data collected supports groundwater monitoring, low water response, and water quality monitoring.	1
<p>Local Water Quality Monitoring <i>Program Description: Ganaraska Conservation, in partnership with community organizations, municipalities, and federal and provincial agencies has established sites to monitor surface water quality and quantity as well as many other parameters to support a healthy ecosystem.</i></p>			
WMHM	Surface Water Quality Monitoring Program	Surface water quality monitoring at 18 surface water sites, (in addition to PWQMN), water quantity measurements at 80 baseflow sites and water quality samples collected at 4 auto sampler sites supporting Lake Ontario nearshore water monitoring. Costs include sampling, analysis, equipment maintenance and reporting.	2

PROGRAMS & SERVICES INVENTORY

Program Area	Program/Service & Sub-services	Description	Category (1,2,3)
<p>Drinking Water Source Protection <i>Program Description: The protection of municipal drinking water supplies in the Trent Conservation Coalition (TCC) Region and the Ganaraska Region Source Protection Area through the development and implementation of TCC Source Protection Plans. Ganaraska Conservation is a member of the TCC which is a complex regional grouping of five Source Protection Areas including Ganaraska, Crowe, Otonabee, Kawartha and Lower Trent Authorities.</i></p>			
WMHM	Local Source Protection Area DWSP	Source Protection Authority reports, meetings and governance. Delivery of the activities required by the Clean Water Act and regulations as per Clean Water Act.	1
WMHM	DWSP Risk Management Official	Carrying out Part IV duties of the Clean Water Act on behalf of municipalities through service agreements.	2
<p>Core Watershed-based Resource Management Strategy <i>Program Description: The purpose of a watershed plan is to understand the current conditions of the watershed, and identify measures to protect, enhance, and restore the health of the watershed. Watershed strategies provide a management framework to provide recommendations which consists of goals, objectives, indicators, and management recommendations. This addresses existing issues in the watershed and mitigate impacts from potential future land uses, while recommending appropriate actions to protect, enhance, and restore the watershed.</i></p>			
NEW	Watershed-Based Resource Management Strategy Development	New Project: Collate/compile existing resource management plans, watershed plans, studies, and data. Strategy development, implementation, and annual reporting. This project builds on previous Watershed Management Strategies. To be completed on or before December 31, 2024 per requirements of Regulation.	1
<p>Sub-watershed Plans and Projects <i>Program Description: Watershed strategies provide a management framework to provide recommendations which consists of goals, objectives, indicators, and recommendations. This addresses existing issues in the watershed and mitigate impacts from potential future land uses, while recommending appropriate actions to protect, enhance, and restore the watershed.</i></p>			
WMHM	Natural Heritage Mapping	Ganaraska Conservation incorporates natural heritage information particularly around wetlands to develop planning and regulatory strategies to mitigate downstream natural hazards. Data is also used in hydrologic and hydraulic models.	2
EAS	Watershed Ecology	Ganaraska Conservation provides watershed ecology services to specific watershed municipalities.	2

PROGRAMS & SERVICES INVENTORY

Program Area	Program/Service & Sub-services	Description	Category (1,2,3)
<p>Conservation Authority Lands and Conservation Areas <i>Program Description: Ganaraska Conservation owns over 11,000 acres of land which includes conservation areas, the Ganaraska Forest, significant wetlands and flood control structures and surrounding land. Ganaraska Conservation property is essential to watershed management, environmental protection, helps implement the Watershed Management Strategy and provides areas for passive recreation.</i></p>			
CL	Section 29 Enforcement and Compliance	<p>Conservation Areas / Ganaraska Forest / regulation enforcement and compliance.</p> <p>Ganaraska Conservation staff and a contracted company patrol the 11,000 acres Ganaraska Forest and conservation areas to ensure that the regulations are being adhere to by the users.</p>	1
CL	Ganaraska Forest	<p>Category 1 - Ganaraska Conservation owns and maintains the 11,000 acre Ganaraska Forest. The forest has 100's of kilometers of multi-use trails that require maintenance year round. This Includes recreation, forest management, risk management program, hazard tree management, gates, fencing, signage, communications, pedestrian bridges, trails, parking lots, picnic shelters, road, restoration, ecological monitoring, carrying costs such as taxes and insurance. The Ganaraska Forest Management Plan guides the management of the forest. The plan's primary goal is "to conserve, enhance and where feasible restore the forest ecosystem to reflect the native biodiversity of the Ganaraska Forest while at the same time embracing recreational, education and social activities that support the health and sustainability of the forest."</p> <p>Category 3 – GRCA also does timber management within the forest. The Forest Management Plan lists principles by which the forest is managed and the last principle states that "the Ganaraska Forest provides a sustainable economic benefit to the GRCA, without compromising the ecological health of the Ganaraska Forest." The revenues vary from year to year based on the plan. Expenses are matched with those revenues.</p>	1, 3

PROGRAMS & SERVICES INVENTORY

Program Area	Program/Service & Sub-services	Description	Category (1,2,3)
Conservation Authority Lands and Conservation Areas			
CL	Conservation Areas	GRCA is responsible for the management and maintenance of 9 conservation areas, as well as other lands that are not formal conservation areas. This Includes passive recreation, forest management, risk management program, hazard tree management, gates, fencing, signage, communications, pedestrian bridges, trails, parking lots, picnic shelters, road, restoration, ecological monitoring, carrying costs such as taxes, insurance and capital asset replacement.	1
CL	Conservation Area Major Maintenance	Major maintenance and capital improvements to support public access, safety, and environmental protection such as pedestrian bridges, boardwalks, pavilions, trails. These expenses are covered by the capital asset reserve in most cases.	1
CL	Land Acquisition	Strategic acquisition of environmentally significant properties.	2, 3
NEW	Inventory of Conservation Authority Lands	New Project: The land inventory will include the following information: location, date obtained, method and purpose of acquisition, land use. Project updates as inventory changes. To be completed on or before December 31, 2024 per requirements of Regulation.	1
NEW	Strategy for CA owned or controlled lands and management plans	New Project: A strategy to guide the management and use of CA-owned or controlled properties including guiding principles, objectives, land use, natural heritage, classifications of lands, mapping, identification of programs and services on the lands, public consultation, publish on website. Updates of existing conservation area management plans. To be completed on or before December 31, 2024 per requirements of Regulation.	1
NEW	Land Acquisition and Disposition Strategy	Update current policy to guide the acquisition and disposition of land to fulfill the objects of the authority. To be completed on or before December 31, 2024 per requirements of Regulation.	1

PROGRAMS & SERVICES INVENTORY

Program Area	Program/Service & Sub-services	Description	Category (1,2,3)
Watershed Stewardship <i>Program Description: The watershed stewardship program includes a fisheries component, a program funded by municipalities which provides funding for landowners for projects and the landowner tree planting program.</i>			
WS	Private Landowner Stewardship Program	Clean Water-Healthy Land – Financial Assistance Program: In partnership with some of the watershed municipalities, Ganaraska Conservation offers environmental, technical and financial assistance, tools and information to any resident, business, school or service club within its jurisdiction and within the participating municipality.	3
WS	Tree Planting Services	Clean Water-Healthy Land – Tree Planting GRCA Tree Seedling Program allows property owners to purchase bare root native tree and shrub seedlings at a minimal cost. GRCA also provides full service tree planting to landowners.	3
WS	Fisheries Services	In partnership with Fisheries and Oceans Canada, Ganaraska Conservation staff are responsible for the sea lamprey monitoring program on Cobourg Creek which captures and samples many difference species and record the results and submit data. Fish surveys are also done with other partners, such as OPG and Hydro One through agreements.	3
WS	Stewardship Partner Projects	Ganaraska Conservation’s stewardship program partners with various organizations to deliver environmental programs and projects. These programs are for a limited time period. Examples include the Highway of Heroes Tree Campaign tree planting partnership, Forests Ontario and the Durham Collaborative Tree Program.	3

PROGRAMS & SERVICES INVENTORY



Program Area	Program/Service & Sub-services	Description	Category (1,2,3)
<p>Other Program Areas <i>Program Description: Ganaraska Conservation delivers other programs that are not part of the mandatory programs and services as outlined in O. Reg. 686/21. All of the programs are funded without municipal general levy. All of the programs influence and enhance the health and watershed management of the GRCA and are part of a larger integrated watershed management model.</i></p>			
CL	Outdoor Education	The Ganaraska Forest Centre, located in the heart of the Ganaraska Forest, is home to the outdoor education program of the GRCA where thousands of students visit for a day or overnight to learn about their environmental footprint and become familiar with the natural world around them. Taught by Ontario – certified teaching staff, the GFC offers curriculum-based education programs for elementary and secondary students. These programs focus on local watersheds, ecosystems, and environmental issues. Programs can also take place at schools (indoors and outdoors) or through online learning.	3
NEW	Other	Opportunities for new projects or programs that benefit the watershed and its municipal partners can occur anytime and can have varying durations. These projects may require matching funding or be self-sustaining. New projects may require municipal participation and/or funding.	3

LANDS ACKNOWLEDGEMENT STATEMENT

The Ganaraska Region Conservation Authority respectfully acknowledges the land on which we gather is situated within the traditional and treaty territory of the Mississaugas and Chippewas of the Anishinabek, known today as the Williams Treaties First Nations. Our work on these lands acknowledges their resilience and their longstanding contributions to the area. We are thankful for the opportunity to live, learn and share with mutual respect and appreciation.



GANARASKA REGION CONSERVATION AUTHORITY

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Clarington

If this information is required in an alternate format, please contact the Accessibility Co-ordinator at 905-623-3379 ext. 2131

September 26, 2023

Linda Laliberte, CAO/Secretary-Treasurer
Ganaraska Region Conservation Authority
Via Email: llaliberte@grca.on.ca

To Linda Laliberte

Re: Presentation Regarding an Overview of the Legislative Changes in the Conservation Authorities Act

File Number: PG.25.06

At a meeting held on September 25, 2023 the Council of the Municipality of Clarington approved the following Resolution #GG-140-23.

That the Presentation of Linda J. Laliberte, CPA, CGA, CAO/Secretary Treasurer, Ganaraska Region Conservation Authority, Regarding an Overview of the Legislative Changes in the Conservation Authorities Act, be received with thanks.

On behalf of Mayor Foster and Members of Council, I would like to thank you for your delegation.

Yours truly,



John Paul Newman
Deputy Clerk

JPN/rk

03/23

Ontario Regulation 168/06
Permits approved by Executive:

Date: October 19, 2023

Permit No.	Date	Address	Municipality/ Township	Description of Works
2303-10/23	Oct.5/23	896 Ontario Street Cobourg	Cobourg	Installation of a new Natural Gas Regulating Station.
2308-09/23	Sep19/23	6167 5 th Line Port Hope Pt.Lt.5, Conc.4	Port Hope	Construction of a driveway, bridge crossing and associated filling and grading.
2310-10/23	Oct.5/23	660 Mackechnie Crescent Cobourg Pt.Lt.22, Conc.A	Cobourg	Construction of an accessary basement apartment with below- grade stairwell entrance.
2311-10/23	Oct.12/23	4897 County Road 45 Baltimore Pt.Lt.8, Conc.3	Hamilton	Installation of a new Natural Gas service.