Grand River Conservation Authority
Agenda - General Meeting

Friday, October 25, 2024
9:30 a.m.
Hybrid Meeting of the General Membership
GRCA Administration Centre
Zoom Virtual Meeting

Pages

1. Call to Order

2. Certification of Quorum

3. Chair's Remarks

4. Review of Agenda

   THAT the agenda for the General Membership Meeting be approved as circulated.

5. Declarations of Pecuniary Interest

6. Minutes of the Previous Meetings 1

   THAT the minutes of the General Membership Meeting of September 27, 2024 be approved as circulated.

7. Business Arising from Previous Minutes

8. Hearing of Delegations

9. Presentations

10. Correspondence

    THAT Correspondence from the Town of Bradford West Gwillimbury to the Ministry of Environment, Conservation and Parks regarding the Ontario Deposit Return Program and from Amy Haertel regarding public safety awareness around low head dams in the Grand River watershed be received as information.

a. Town of Bradford West Gwillimbury re: Ontario Deposit Return Program 9

b. Amy Haertel re: Initiative for public safety awareness around low head dams in the Grand River watershed 10

11. 1st and 2nd Reading of By-Laws

12. Reports:

a. GM-10-24-89 - Elora Quarry and GRCA Membership Pass Pilot Project 2024 Update 11

THAT Report Number GM-09-24-89 - Elora Quarry and GRCA Membership Pass Pilot Project 2024 Update be received as information.

b. GM-10-24-91 - Conservation Areas Strategy 13

THAT Report Number GM-10-24-91 – Conservation Areas Strategy be received as information;

AND THAT the Conservation Areas Strategy be approved and posted on the Grand River Conservation Authority website;

AND THAT the GRCA's Human Heritage Policy 2005 (P-03-05-20) be rescinded.

c. GM-10-24-86 - Permits Issued under Ontario Regulation 41/24 96

THAT Report Number GM-10-24-86 – Permits Issued under Ontario Regulation 41/24 be received as information.

d. GM-10-24-96 - Water Control Structures Asset Management Plan 97

THAT Report Number GM-10-24-96 – Water Control Structures Asset Management Plan be received as information.

AND THAT the Water Control Structures Asset Management Plan be approved and implemented.

e. GM-10-24-95 - Shand Dam Spillway Stoplog Gains Refurbishment - Tender Award 131

THAT the Grand River Conservation Authority award the contract for the Shand Dam Spillway Stoplog Gains Refurbishment to BGL Contractors Corp for the amount of $555,860.00 dollars (excluding HST);

AND THAT a contingency of 10 percent be included in the overall project budget for a total project budget of $611,446.00 (excluding HST).

f. GM-10-24-97 - Membership, Ticketing, and Equipment Rentals System - Request for Proposals 133

THAT the Grand River Conservation Authority enter into an agreement for a Membership and Ticketing System Solution with ParkPass Inc. based in Toronto, Ontario for a term of three years with an option to extend the agreement up to three additional one-year terms;

AND THAT a total budget of $215,000 excluding HST be approved.

g. GM-10-24-92 - Cash and Investment Status 135

THAT Report Number GM-10-24-92 – Cash and Investment Status – September 2024 be received as information.

h. GM-10-24-99 - Financial Summary 137

THAT the Financial Summary for the period ending September 30, 2024 be approved.

i. GM-10-24-87 - Budget 2025-Draft 1 142

THAT Report Number10-24-87 – Budget 2025 - Draft #1 be approved for consultation purposes, circulated to all participating municipalities, and posted to the GRCA website.

THAT staff be directed to forward correspondence regarding the Minister's direction to freeze planning and regulations user fees to the Minister of Natural Resources and Forestry.

j. GM-10-24-88 - Budget 2025-Draft 1 - Municipal Apportionment 174

THAT Report Number GM-10-24-88 – Budget 2025 – Draft #1 – Municipal Apportionment be received as information.

k. GM-10-24-93 - Fee Policy - Planning and Regulations Permit 176

WHEREAS staff were directed through Resolution 24-146 to prepare a fee structure to reach 85% cost recovery for permits in 2025, and a fee structure to reach 100% cost recovery for Plan Review and Regulations fees in a reasonable timeframe;

AND WHEREAS fee amendments require approval by the General Membership;

BE IT RESOLVED THAT the Grand River Conservation Authority provide direction on the fee structure and implementation timeline as presented in report GM-10-24-93;

AND THAT staff bring forward a Fee Schedule at the next General Membership meeting.

l. GM-10-24-94 - Fee Policy 2025 193

THAT amendments to the Grand River Conservation Authority Fee Policy as outlined in this report be approved and implemented effective January 1, 2025;

AND THAT Fee Schedule 1 – Outdoor Environmental Education Fees be approved and implemented effective January 1, 2025;

AND THAT Fee Schedule 2 – Conservation Areas Fees be approved and implemented effective January 1, 2025;

AND THAT Fee Schedule 4 – Tree Nursery Fees be approved and implemented effective January 1, 2025.

m. GM-10-24-98 - 2025 Board Meeting Schedule 219

THAT the 2025 Grand River Conservation Authority Board Meeting Schedule be approved.

n. GM-10-24-90 - Ice Management Plan 222

THAT the Ice Management Plan be approved and implemented.

o. GM-10-24-100 - Current Watershed Conditions 278

THAT Report Number GM-10-24-100 – Current Watershed Conditions as of October 15, 2024 be received as information.

13. Committee of the Whole

14. General Business

15. 3rd Reading of By-Laws

16. Other Business

17. Closed Meeting

THAT the General Membership enter a closed meeting in accordance with the Municipal Act section 239(2) for the following purpose(s): labour relations or employee negotiations.

a. Minutes of the previous closed session

b. Labour relations or employee negotiations

18. Next Meetings

19. Adjourn

Regrets only to:
Office of the Chief Administrative Officer, Phone: 519-621-2763 ext. 2200

Grand River Conservation Authority
Minutes - General Membership Meeting

Date:	September 27, 2024
Time:	9:30 am
Location:	Hybrid Meeting of the General Membership
Members Present	Bruce Banbury, Christine Billings, John Challinor II, Ken Yee Chew, Brian Coleman, Doug Craig, Kevin Davis, Mike Devine, Jim Erb, Susan Foxton, Guy Gardhouse, Gord Greavette, Lisa Hern, Colleen James, Daniel Lawrence, Dave Miller, Rob Shirton, Jerry Smith, Shawn Watters, Chris White, Kari Williams, Alex Wilson, Pam Wolf
Regrets	Gino Caputo, Natasha Salonen, Sandy Shantz
Staff	Samantha Lawson, Karen Armstrong, Beth Brown, Krista Bunn, Joel Doherty, Brandon Heyer, Janet Ivey, Kayleigh Keighan, Murray Lister, Katelyn Lynch, Sonja Radoja, Lisa Stocco, Vahid Taleban, Pam Walther-Mabee, Mark Anderson, Benjamin Cheng, Melissa Larion, Nick Randle, Eowyn Spencer
Others	Dan Schneider

1. Call to Order

The Meeting was called to order by the Chair at 9:30 a.m.

2. Certification of Quorum

The Secretary-Treasurer certified quorum with more than half of the Members present. A total of 23 Members attended the meeting.

3. Chair's Remarks

The Chair welcomed the Members and made the following remarks:

- On September 19th the CAO and I attended a Melanchton Township Council meeting to discuss conservation authority programs and municipal apportionment, and on September 23 Samantha attended the Township of Wilmot Council meeting to present the Conservation Areas draft strategy. A reminder that the survey for the draft strategy is open until October 4 and can be found on the GRCA's website.
- Also on September 23rd, Samantha attended Conservation Ontario Council, agenda highlights included discussion on policy guidance for administrative reviews of permits under section 28 of the CA Act, and Conservation Ontario's comments on provincial initiatives.
- The Lake Erie Region Source Protection Committee is actively recruiting economic sector representatives to join the Committee. Please feel free to share this information amongst your respective networks.
- Environment and Climate Change Canada has awarded the GRCA about half a million dollars over 4 years under the Great Lakes Freshwater Ecosystem Initiative. The funds will be used to support implementation of agricultural best practices to improve water quality in the Fairchild Creek and Nith River subwatersheds.

- On September 22, the GRCA hosted the Heritage River Festival at Brant Conservation Area to commemorate the 30th anniversary of the Grand River's heritage river designation. The event comprised about 18 different activity booths and events hosted by local groups and sponsors and was well-received by the community and attendees. Thank you to many of our Board members who came out to visit and support the event, and thank you to Janet Ivey, Brant Conservation Area, and GRCA staff for organizing the festival.
- Two new Managers have joined the GRCA this month. Joel Doherty is the Manager of Conservation Lands, and Kayleigh Keighan is the new Manager of Finance.

K.Williams joined the meeting at 9:32 a.m.

4. Review of Agenda

24-136
Moved By Susan Foxton
Seconded By Shawn Watters
THAT the agenda for the General Membership Meeting be approved as circulated.

Carried

5. Declarations of Pecuniary Interest

There were no declarations of pecuniary interests made in relation to the matters to be dealt with.

6. Minutes of the Previous Meetings

D.Miller expressed a concern that the attendance was not correctly recorded in August. Staff agreed to confirm the record following the meeting, and to follow up if needed.

A.Wilson and C.James joined the meeting at 9:48 a.m.

24-137
Moved By Kari Williams
Seconded By John Challinor II
THAT the minutes of the General Membership Meeting of August 23, 2024 be approved as circulated.

Carried

7. Business Arising from Previous Minutes

- D.Miller expressed a concern about agenda content and that some meeting dates potentially overlap with other events. The Chair noted that Board meeting dates are approved by the Board each year, and that agenda content is driven by ongoing projects and relevant regulatory requirements.
- P.Wolf inquired about the direction to staff to bring back a report regarding silt build-up near dams, and when that report can be expected. S.Lawson confirmed staff will bring the report before year-end.

8. Hearing of Delegations

8.a Dan Schneider - Outdoor Education Program Review

- Dan Schneider attended the Board meeting to share concerns regarding the Outdoor Education Program. The delegation shared photos of his time working as an environmental education specialist and discussed the overall importance of outdoor education and getting kids outside for hands-on learning experiences.
- The Chair thanked the delegation for his presentation, and there were no questions for staff.

9. Presentations

There were no Presentations.

10. Correspondence

24-138
Moved By Gord Greavette
Seconded By Shawn Watters
THAT Correspondence from Tom Woodcock on behalf of rare Charitable Research Reserve regarding Giant Hogweed, Christa Hesselink regarding conservation lands and delegations, and from the City of Guelph regarding their 2025 budget direction be received as information.

Carried

11. 1st and 2nd Reading of By-Laws

None.

12. Reports:

12.a GM-09-24-78 - Outdoor Environmental Education Program - Update

- The Chair provided a brief reminder of the ongoing discussions related to the various nature centre properties, noting further discussion is required. The Chair added that the GRCA has no intention of ending the outdoor education program, only that in some cases it may move out of current locations.
- K.Davis thanked the delegation for the presentation and emphasized the importance of these programs. He added appreciation for staff for extending the timeline to ensure all options are being thoroughly considered and noted he is optimistic about the outcome for the properties.
- R.Shirton asked about communications with Haldimand Council, and S.Lawson confirmed that additional information was provided earlier in the year. S.Lawson will follow up to confirm receipt.

24-139
Moved By Jerry Smith
Seconded By John Challinor II
THAT the Grand River Conservation Authority extend the deadline regarding the potential options for the Apps' Mill, Laurel Creek, and Taquanyah nature centres from September 2024 to March 2025 to allow staff to continue discussions with municipalities, school boards and other agencies.

Carried

12.b GM-09-24-80 - By-law Update - Delegations

The Chair noted this amendment includes an update to the delegation section, and that the change to one vice-chair section will be updated before the next Board election.

24-140
Moved By Pam Wolf
Seconded By Rob Shirton
WHEREAS By-law 2-2024 was read a first and second time at the General Membership meeting on August 23, 2024; and staff were directed to make amendments based on discussion at the meeting

THEREFORE BE IT RESOLVED THAT By-law 2-2024 be read a third time and adopted by the General Membership effective September 27, 2024;

AND THAT a copy of By-law 2-2024 be forwarded to the Ministry of Natural Resources and posted on the Grand River Conservation Authority's website.

Carried

12.c GM-09-24-77 - Budget 2025 - Timelines and Considerations

- S.Radoja presented an overview of the considerations and timeline for the 2025 Budget. The presentation highlighted challenges anticipated in 2025, initial assumptions for the

operating and capital budget, as well as special project budgets and plans for offsetting expenditures where applicable.

- The presentation highlighted an initial apportionment estimate, which will be refined and presented to the Board for approval in January, and an overall timeline for draft Budget presentation, apportionment approval, municipal notification, and final approval.
- J.Challinor thanked staff and discussed cost-recovery targets for planning and regulations fees, and how we compare to similar organizations. J.Challinor asked if there should be consideration to discuss fee freezes with the Minister, in cases where the GRCA falls short of cost-recovery, and noted that it is not a sustainable policy direction.
- S.Lawson confirmed that direction to freeze fees will impact any increases intended to reach cost-recovery for services, and added that it is difficult to predict but once confirmed the decision will inform future budget assumptions. S.Lawson added that there is some related discussion happening at Conservation Ontario Council. J.Challinor suggested including a motion with the September draft Budget to send correspondence to the Minister regarding the impact of the fee freeze. S.Foxton echoed this sentiment, noting she will be requesting the same at the Region of Waterloo.
- D.Lawrence asked about cost-recovery targets for outdoor education, and the Chair noted that the concerns there are what have been driving further conversations with external agencies, as staff had recommended moving the program to operate from within Conservation Areas to reduce the deficit in a move towards break-even operations. S.Lawson noted that the Transition Reserve was developed to support the transition to the category 1, 2, and 3 budget framework, and that it will be used to address the deficit for that program in 2025.

24-141
Moved By Brian Coleman
Seconded By Bruce Banbury
THAT Report Number GM-09-24-77 - Budget 2025 – Timelines and Preliminary Considerations be received as information.

Carried

12.d GM-09-24-75 - Cash and Investment Status
There were no questions or comments on this item.

24-142
Moved By Christine Billings
Seconded By Gord Greavette
THAT Report Number GM-09-24-75 – Cash and Investment Status – August 2024 be received as information.

Carried

12.e GM-09-24-84 - Financial Summary
There were no questions or comments on this item.

24-143
Moved By Bruce Banbury
Seconded By Daniel Lawrence
THAT the Financial Summary for the period ending August 31, 2024 be approved.

Carried

12.f GM-09-24-79 - 2024 Road Site Preparation and Surface Treatment Contract Increase
There were no questions or comments on this item.

24-144
Moved By Brian Coleman
Seconded By Jerry Smith
THAT the Grand River Conservation Authority increase the Cornell Construction contract value by $130,357.00 for the 2024 Road Site Preparation and Surface Treatment to align with the completed essential road repairs on GRCA properties throughout the watershed.

Carried

12.g GM-09-24-81 - Planning and Regulations Fees Guidance

- B.Brown provided an overview of regulated fees charged by conservation authorities for permit and plan review services, and provided some background information on the historical direction to achieve 50% cost-recovery for these services for permitting and 100% for some plan review services.
- The presentation also highlighted a consultant review of the fees and subsequent recommendations to increase fees and cost-recovery targets and discussed the Minister's direction received by conservation authorities in 2022 and 2023 to freeze all permit and plan review fees for the 2023 and 2024 budgets. The GRCA's 2022 fees were approved prior to the Minister's direction so an increase was implemented for the 2023 fees.
- Prior to planning for the 2025 budget and fees increase, staff are seeking guidance from the Board on the cost-recovery targets, and the approach to be taken to increasing fees.
- Board Members had questions regarding fees charged, environmental assessment review services provided, where the GRCA fees measure on a comparable scale, and differences in the Grand River watershed that may set this fee structure apart from similar organizations. It was recommended that an external fee review be done on a periodic basis, such as every 5 years.
- K.Davis provided suggestions to include additional information on a subsequent report to help inform the decision-making process, and suggested a deferral of the current motion.
- B.Brown responded to questions, noting that additional information can be provided as requested.

24-145
Moved By Pam Wolf
Seconded By John Challinor II
THAT staff be directed to implement a cost recovery target of 65% for Regulations fees;

AND THAT staff be directed to implement a cost recovery target of 100% for Plan Review fees.

Defeated

Moved By Kevin Davis
Seconded By Brian Coleman

THAT staff be directed to bring forward to the October Board meeting, as part of the 2025 Budget process, a revised report for a suggested permit and plan review fee schedule, to include the following :

- A fee structure demonstrating an immediate move to 85% cost recovery on standard fees;
- A plan or a timetable to achieve 100% cost recovery within a reasonable timeframe;
- Actual comparable fees charged for similar services in other Conservation Authorities;
- Potential fees to be charged for Environmental Assessment services.

Carried

12.h GM-09-24-74 - ERO Posting 019-8463 - Decision - Updated Provincial Planning Statement
There were no questions or comments on this item.

24-147
Moved By Kari Williams
Seconded By Daniel Lawrence
THAT Report Number GM-09-24-74 ERO Posting 019-8462 Decision - Updated Provincial Planning Statement be received as information.

Carried

B.Coleman left the meeting at 10:54 a.m.

12.i GM-09-24-76 - Speed River Hydrology Contract

There were no questions or comments on this item.

24-148
Moved By Susan Foxton
Seconded By Colleen James
THAT the Grand River Conservation Authority accept the bid from Matrix Solutions Inc. to carry out the Speed River Hydrologic Model Development at a cost of $109,664 (excluding HST);

AND THAT a contingency of 10% be included in the overall project budget for a total project budget of $120,630 (excluding HST).

Carried

S.Foxton took a brief pause in the meeting to share condolences for Jack Griffin. Jack was a long-term employee dedicated to the GRCA and Pinehurst Lake Conservation Area, and recently passed. The Board offered condolences to Jack's family.

12.j GM-09-24-82 - GRCA Reservoir Operations Policy

- V.Taleban provided a presentation on the updated Reservoir Operations Policy, which has been updated as part of the regulatory deliverables under Ontario Regulation 686/21.
- The presentation provided background on the development of the original policy in 1974 and discussed the established target levels for the GRCA-owned and operated reservoirs.
- There was also information provided with respect to changing trends in annual flooding periods, climate change and its impact on flood operations, and provided a summary of flooding and water flow data collected over 30-40 years at various points in the watershed, which illustrates the changing weather trends.
- Following the presentation, D.Miller inquired about the purpose of updating the policy, and if climate change was a driving factor. V.Taleban noted that the policy is a regulatory deliverable, but climate change was considered as the required update provided an opportunity to include current data.

24-149
Moved By Susan Foxton
Seconded By Pam Wolf
THAT the Grand River Conservation Authority Reservoir Operations Policy be approved.

Carried

12.k GM-09-24-85 - Current Watershed Conditions

There were no questions or comments on this item.

24-150
Moved By Guy Gardhouse
Seconded By Lisa Hern
THAT Report Number GM-09-28-85 – Current Watershed Conditions as of September 17, 2024 be received as information.

Carried

D.Lawrence left the meeting at 11:15 a.m.

12.I GM-09-24-83 - Unauthorized Encampments on GRCA Properties

- P.Walther-Mabee provided a presentation on encampments on GRCA properties. The presentation highlighted a significant increase in encampments, in particular at Dumfries Conservation Area, and the impact on staff resources, expenses for clean-up and hiring additional staff and security, health and safety concerns for staff, and procedures in place to manage the encampments.
- There was information about next steps, which include developing clarity in responsibilities and protocol support from other agencies and looking into multi-agency committees with partner municipalities facing similar challenges.
- Board Members discussed the concerns related to the unauthorized use of properties and inquired about the current process, financial restitution options, operational budget impact or future estimates, and consideration of social services and support for individuals experiencing homelessness.
- P.Walther-Mabee and S.Lawson responded to questions, noting that evictions are handled with respect and professionalism and are coordinated with other agencies to provide additional support to impacted individuals, and that ongoing challenges are expected, but are difficult to estimate as there are many factors that drive the placement of unauthorized campsites.
- Board members suggested identifying a key staff contact to improve inter-agency communications and creating a dedicated budget line to manage site clean-ups.

24-151
Moved By Susan Foxton
Seconded By Mike Devine
THAT Report Number GM-08-24-83 – Unauthorized Tenting on GRCA Properties be received as information.

Carried

13. Committee of the Whole
Not required.

14. General Business
There was no General Business.

15. 3rd Reading of By-Laws
Completed previously.

16. Other Business
None.

17. Closed Meeting
24-152
Moved By Kari Williams
Seconded By Jerry Smith
THAT the General Membership enter a closed meeting in accordance with the Municipal Act section 239(2) for the following purpose(s): security of property, labour relations or employee negotiations, and litigation or potential litigation.

Carried

K.Davis, M.Devine, and K.Williams left the meeting during the closed session.

24-153
Moved By John Challinor II
Seconded By Susan Foxton

THAT the General Membership reconvene in open session.

Carried

18. Next Meeting - Friday, October 25, 2024 at 9:30 a.m. (Hybrid)

19. Adjourn
The meeting was adjourned at 12:10 p.m.

24-154
Moved By Susan Foxton
Seconded By Guy Gardhouse
THAT the General Membership Meeting be adjourned.

Carried

_____ _____

Chair Secretary-Treasurer

Town of Bradford West Gwillimbury
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Bradford, Ontario, Canada L3Z 2A7

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September 20, 2024 **BY E-MAIL**

Hon. Andrea Khanjin, Minister of the Environment, Conservation and Parks
5th Floor
777 Bay St.
Toronto, ON M7A 2J3

Dear Minister Khanjin:

Ontario Deposit Return Program

I hope this letter finds you well. I am writing to formally address the recent discussions surrounding the Ontario Deposit Return Program, particularly regarding our community residents asking us about the recycling of nonalcoholic beverage plastics.

Whereas the Ontario Deposit Return Program has successfully incentivized the recycling of alcoholic beverage containers, resulting in the removal of over 204,000 tonnes of greenhouse gas emissions, we recognize the potential for similar success with nonalcoholic beverages.

The Ministry of the Environment, Conservation and Parks highlighted in their June 2023 letter that they are considering the adoption of a deposit-and-return system for nonalcoholic beverages. This initiative presents a unique opportunity to further promote recycling, reduce litter, and encourage sustainable practices among consumers.

Therefore, I am proud to announce that our Council endorses the expansion of the Ontario Deposit Return Program to include nonalcoholic beverage containers. We believe that this expansion will not only enhance environmental stewardship but also foster a culture of sustainability within our community.

We encourage all stakeholders to support this initiative and work collaboratively towards its implementation. Together, we can make a significant impact on our environment and set a positive example for future generations.

Yours truly,

Mayor James Leduc
Town of Bradford West Gwillimbury

CC:
Hon. Peter Bethlenfalvy, Minister of Finance
Hon. Caroline Mulroney, Member of Provincial Parliament for York-Simcoe
MPP Sandy Shaw, Opposition Environment, Conservation and Parks Critic
Ontario's Municipal Councils and Conservation Authorities

Good day members of the GRCA Committee,

Subject: Initiative for Public Safety Awareness Around Low Head Dams in the Grand River Watershed

I am writing to again express my concern regarding the safety risks posed by limited signage around low head dams within the Grand River watershed. As you are likely aware, these structures can present significant hazards for recreational users, including boaters and swimmers. The Grand River Conservation Authority (GRCA) has long been regarded as a vital resource for public safety in our region. Your commitment to protecting the watershed and promoting responsible recreational use makes you an essential leader in fostering a safe environment for all who enjoy our waterways.

Given the increasing popularity of water-based activities, it is crucial for the GRCA to take an even more proactive stance in communicating the risks associated with low head dams. I would like to propose the following initiatives for consideration:

1. Communication with other Dam owners regarding signage and markings:
    a. Encourage dam owners in the Grand River Watershed to consult with you and the Ministry of Transportation regarding proper signage around dangerous dams.
    b. Encourage Dam owners to review the signage and safety measures at their dams,
    c. Encourage the installation of clear and visible signage at low head dam sites, indicating the potential hazards and advising on safe practices.
    d. Encourage and ensure organized and uniform signage in the watershed.

2. Work with municipalities and cities in the watershed to create river access point signage:
    a. Give recreational users the opportunity to find important safety information about the river.
    b. View of a river map with known dangers labeled.
    c. Communicate the importance of personal safety information (life jackets, proper equipment, who to call in case of emergency)
    d. QR code or links to check river flow and advisory’s

3. Create a more user friendly information page about flow rate and water level.
    a. Keep the chart but explain how to use the information in a more user friendly way.

4. Increase the spread of Public Awareness Campaigns:
    a. Collaborate with local user groups or social media efforts to increase the spread of your educational campaigns.

By taking these steps, the GRCA can reinforce its role as a trusted resource for public safety and enhance the overall well-being of our community while enjoying the beautiful Grand River watershed.

Thank you for considering these important aspect of public safety in the watershed. I look forward to your involvement as a leader in the Grand River Watershed.

Sincerely,

Amy Haertel

River Access Point Safety Movement

Grand River Conservation Authority

Report number: GM–10-24-89

Date: October 25, 2024

To: Members of the Grand River Conservation Authority

Subject: Elora Quarry and GRCA Membership Pass Pilot Project 2024 Update

Recommendation:

THAT Report Number GM-09-24-89 - Elora Quarry and GRCA Membership Pass Pilot Project 2024 Update be received as information.

Summary:

As a follow-up to Report GM-09-23-62 –Elora Quarry and Grand River Conservation Area Membership Pass Update the pilot program allowing GRCA Conservation Areas Membership holders to have access to the Elora Quarry Conservation Area (Elora Quarry CA) has been evaluated.

Additional background information that provides context about how and why capacity measures were determined at the Elora Quarry CA were shared with the General Membership in the following reports: GM- 06-23-49, GM-12-17-124, GM-12-18-119, GM-11-19-109, and GM-11-21-83.

Based on the success of the pilot program in 2024 and the support from the membership users, the membership program will become part of the regular operations of the Elora Quarry Conservation Area.

Report:

Capacity at the Elora Quarry CA is based on many factors; two of the most limiting are the availability of on-site parking and capacity at the beach. While the parking area can accommodate between 125- 175 cars, the beach has a maximum capacity of between 300-350 people. Other GRCA properties base capacity solely on parking spots. The Elora Quarry CA is much smaller in size and amenities than other GRCA Conservation Areas and a heavy concentration of patrons can negatively impact both the user experience at the beach and the natural features.

All access to the Elora Quarry CA is through advance reservations, and membership pass holders are required to follow the same process and present a confirmation of reservation at the point of entry. Membership pass holders are also required to pay the additional parking fee of $15.00 should a parking spot be needed. A cap on the number of spaces available to membership users has been limited to a minimum of 10% to a maximum of 15 % of the total available reservations.

Currently, between 300 and 350 day pass reservations are made per time slot, (two time slots per day) from early June until Labour Day. The weekend is the busiest time at the Elora Quarry CA, and when there is the most demand.

To balance maximizing revenue with allowing membership pass holder access, staff recommended a weekday reservation program to GRCA Conservation Area membership pass holders as a pilot project.

During the 2024 operating season for the Elora Quarry CA, 250 GRCA membership transactions were processed with approximately 800 individual tickets issued. GRCA memberships allow up to 6 people per carload. As the 2024 summer unfolded and capacity allowed, the program was extended to also include weekends for GRCA membership holders..

The factors to determine the continuation of the pilot program were the impact on overall operations, technical challenges, financial and statistical information, feedback from the current day-use customers, feedback from GRCA Conservation Area membership pass holders, and feedback from staff.

The 2024 season showed that the current percentage allotment for membership holders is meeting the demand as no one session was completely sold out of the membership portion. This will be monitored for adjustment moving forward as we do with all admission operations, each year.

Feedback was generally positive in nature and most membership holders expressed gratitude for the re-inclusion of GRCA memberships. Staff feedback was positive, that the pilot program helped to provide greater opportunities for local users and long-time supporters of GRCA's Conservation Areas to enjoy the popular recreation area.

Negative feedback was minimal and was typically centered around the online ticketing process. Some GRCA membership users felt they should be given immediate access to the Conservation Area and should not be required to reserve in advance.

Based upon operational needs and feedback from the pilot program, staff support the addition of membership holders accessing the Elora Quarry Conservation Area as part of the regular operations.

Financial Implications:

Assuming patrons purchased a membership card regardless of ability to use that card at the Elora Quarry, and if patrons would have purchased a daily pass if their membership card did not provide access to the quarry, then an additional $8,000 in revenue would have been realized. . It is unknown if the GRCA membership holders would have chosen to attend the Elora Quarry CA if it wasn't part of the pilot project for the membership program. It is also not known if some patrons might not have purchased a membership card if the pilot project were not in place.

Prepared by:

Ben Rosebrugh
Superintendent of Elora Gorge/Quarry

Pam Walther-Mabee
Manager of Conservation Area Operations

Approved by:

Karen Armstrong
Deputy CAO/ Secretary Treasurer

Grand River Conservation Authority

Report number: GM-10-24-91

Date: October 25, 2024

To: Members of the Grand River Conservation Authority

Subject: Conservation Areas Strategy

Recommendation:

THAT Report Number GM-10-24-91 – Conservation Areas Strategy be received as information;

AND THAT the Conservation Areas Strategy be approved and posted on the Grand River Conservation Authority website;

AND THAT the GRCA's Human Heritage Policy 2005 (P-03-05-20) be rescinded.

Summary:

The final draft of the Conservation Areas Strategy has been prepared after a six-week consultation period. Based on the feedback received, minor revisions have been made. Once approved, the final Strategy will be available on the GRCA's website.

After reviewing changes to the Conservation Authorities Act and regulations, and developing the Conservation Areas Strategy, GRCA staff recognized that the 2005 Human Heritage Policy should be rescinded. Those elements of the Policy that remain implementable, notably maintenance of the Canadian Heritage River designation, have been incorporated into the Conservation Areas Strategy.

Report:

Ontario Regulation 686/21: Mandatory Programs and Services requires all Conservation Authorities to develop a Conservation Areas Strategy by December 31, 2024. The purpose of the Strategy is to provide an integrated, high-level framework that helps guide, manage, and inform future decision-making for all GRCA-owned and controlled lands.

Ontario Regulation 686/21 requires public and stakeholder consultation on the Strategy in a manner that the conservation authority considers advisable. The Grand River Conservation Authority (GRCA) approved the draft Conservation Areas Strategy (Strategy) at the August 2024 meeting, and directed staff to undertake public consultation with municipalities, First Nations, the public and other interest-holders (see GM-08-24-66). Staff undertook the following activities during a six-week consultation period from August 23rd to October 4th:

- The draft strategy was posted on the GRCA's website.
- Letters were sent to watershed municipalities, Six Nations of the Grand River, and the Mississaugas of the Credit First Nation. By request, staff presented the Strategy to the Township of Wilmot council meeting on September 23rd.
- Two virtual webinars were held on September 10th and September 24th. Six participants attended the first webinar and four attended the second. A recording of the presentation was posted on the GRCA's website.
- A survey was posted on the GRCA's website until October 4th.
- Staff attended the Mississaugas of the Credit First Nation's "Caring Together Gathering" community event on September 18th. Staff promoted the Strategy and provided information on the webinar and survey.

- The Strategy, survey and public consultation information was advertised through a press releases and multiple social media posts.

Summary of Feedback

Staff gathered feedback through the online survey, municipal presentations, written comments and two public webinars. Comments were aggregated and are summarized below.

Public webinars:

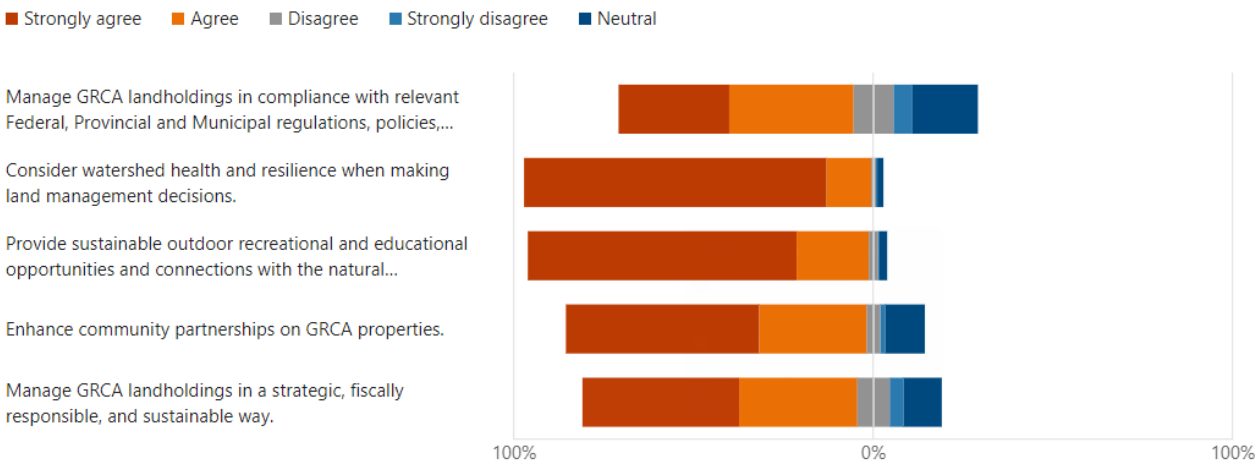
During both webinars, staff delivered a 15-minute presentation on the draft Strategy and was followed by a Q & A session. Questions asked during the two public webinars covered a wide range of topics and answers were provided by Samantha Lawson, Chief Administrative Officer; Pam Walther-Mabee, Manager of Conservation Area Operations; and Lisa Stocco, Manager of Strategic Communications and Environmental Education.

Public Survey

A total of 234 respondents participated in the public survey. Majority of respondents lived within the Grand River Watershed and 25% were Grand River Conservation Areas Membership holders. Conservation Land properties were the most popular property type visited followed by Grand River Conservation Areas and Rail Trails. The survey asked to what extent respondents supported the 5 objectives, and the majority strongly agreed or agreed (see Figure 1).

Figure 1. Graph showing respondents overall support for strategy's objectives.

Based on additional comments and feedback received in the anonymous survey, 7 main themes were identified. See table 1 for a summary of themes, comments and suggested minor edits to



the Strategy (See also track change edits in Appendix A). All comments received are attached in Appendix B through E).

Table 1. Summary of feedback themes, general comments, reference in Strategy and GRCA's response.

Theme:	General Comments	Response
Environmental Protection	Respondents emphasized the importance of environmental conservation and the protection of biodiverse areas and greenspaces for future generations. Feedback highlighted the significant role that GRCA properties contribute to protecting wildlife and sensitive ecosystems. Survey participants would like to see increased protection and conservation efforts to ensure these areas remain healthy, thriving ecosystems.	The *GRCA Land Contribution to Watershed Health* section and *Objective 2* details the environmental significance of many GRCA properties and discusses GRCA's restoration efforts and contribution to overall watershed health. Action items identified support ongoing conservation efforts on GRCA properties.
Operations	Feedback included a broad range of topics relating to operations and processes within: Conservation areas (including high admission rates, grounds maintenance, staffing resources, lack of year-round access, and enforcement patrols); Conservation lands (rail trail maintenance, hunting properties); Cottage lot program (shoreline management, fertilizer use/pollution, enforcement of development standards)	*Objective 3* discusses GRCA's outdoor recreational programs and suggested actions to promote access and maintain infrastructure and amenities. Operational procedures and processes are outlined in Conservation Area Standard Operating Procedures. *Strategy edit: bullet added under objective 5: "Ensure cottage lot program is in conformity with existing policies"*
Invasive Species	Respondents highlighted the importance of managing invasive species such as LDD moths, phragmites and giant hogweed. They felt there needs to be increased efforts and actions to remove invasive species and would like to see a watershed approach to invasive species management.	Invasive species management is identified in the Strategy as an ongoing challenge. *Objective 2* identifies invasive species as a consideration when developing land management strategies on GRCA-owned land. More specific information would be incorporated into the Natural Heritage Restoration Strategy. Management of invasive species is the responsibility of the individual landowner and the GRCA has a program in place to manage invasive species on GRCA-owned lands.
Climate Change	Respondents commented that they felt it was important for the GRCA to prioritize climate change through mitigation and adaptation measures (such as flood control, carbon sequestration, and protection of green spaces, plant and animal species.).	*Objective 2* addresses the significance of climate change and the important roles GRCA's properties play in mitigating impacts. All actions identified under this objective contribute to climate change response, adaptation and mitigation.

Theme:	General Comments	Response
Partnerships	Participants commented that there is a need for enhanced, strategic, and sustainable community partnerships to improve watershed health and resiliency. This included examples such as partnerships with Indigenous groups, Local Land Trust, municipalities and trail way associations.	*Objective 4* is dedicated to describing the importance of partnerships with the GRCA, and the commitment to maintain and enhance new and existing relationships with municipalities, First Nations, and other community groups.
Indigenous Values	Respondents commented that it was important to establish a defined process to incorporate Indigenous values, knowledge, partnered conservation efforts and indigenous-aligned leadership, stewardship and strategies.	*Objective 4* identifies Firsts Nations as a key community partner and discusses the GRCA's intent to grow relationships with the Mississaugas of the Credit First Nation and Six Nations of the Grand River through engagement, consultation and collaboration. *Strategy edit: clarified that the action item "Engagement Guidelines" will outline engagement and collaboration process with Indigenous communities*
Niska Landholdings	Majority of the Conservation Areas Strategy survey responses were regarding opposition to the approved Niska Management Plan (GM-06-24-64).	Decisions regarding specific landholdings are outside the scope of the Conservation Areas Strategy. The Niska Management Plan outlines the future direction for the property. GRCA's policies on acquisition and disposition outline processes and priorities for land transactions, and were approved through board report (GM-08-24-70).

Next Steps

Once approved, the final version of the Strategy will be posted on the GRCA's website. The Strategy will be reviewed every 5 years, and any subsequent updates will undergo public consultation and be posted online. Implementation of action items will be ongoing over the next 5 years, with targets to completion prior to the next review.

Human Heritage Policy

The GRCA approved a Human Heritage Policy in 2005, to support the GRCA's custodianship of the Canadian Heritage River designation and to promote stewardship of human heritage features on GRCA property (Appendix F). Following approval of the Policy, changes to provincial legislation strengthened the municipal role in built heritage protection.

The Human Heritage Policy was reviewed for alignment with recent amendments to the Conservation Authorities Act and regulations, and it was determined that most of the policies were either not implementable, no longer necessary, or could be addressed in other ways:

- Actions related to maintenance of the Canadian Heritage River designation have been incorporated into the Conservation Areas Strategy. Annual and decadal reporting to the Canadian Heritage River Secretariat will continue and the GRCA will continue to promote celebration of the Grand River as a Canadian Heritage River. Maintenance of the designation is a Category 3 (Authority) program.
- The GRCA can no longer advocate for human heritage preservation through the permit and planning programs. Sections 21.1.1 and 21.1.2 of the Conservation Authorities Act and Ontario Regulation 596/22 restrict the GRCA's ability to comment on permit and planning applications to matters relating to risks from natural hazards.
- The GRCA's Conservation Areas Strategy and Board-approved Land Acquisition and Disposition Policy (GM-08-24-70) will guide the GRCA's property decisions.
- Existing heritage studies and inventories remain a resource for staff and external partners.

Financial Implications:

Not applicable

Other Department Considerations:

An interdepartmental working group prepared the Conservation Areas Strategy. Implementation of the Strategy action items are within the approved annual budgets of the Conservation Area Operations, Conservation Lands, and Environmental Education departments.

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Conservation Areas Strategy

2024, Final Draft

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Introduction

The Grand River Conservation Authority (GRCA) manages water and other natural resources on behalf of 38 municipalities and approximately one million residents of the Grand River watershed. The GRCA is a partnership of watershed municipalities and provides an avenue to work together, addressing environmental issues and opportunities that serve to benefit the entire Grand River watershed. Through programs that balance human, environmental and economic needs, the GRCA works collaboratively with all levels of government, various organizations, and members of the community to ensure the conservation, restoration and responsible management of water, land, and natural habitats in the watershed.

Vision

A healthy watershed where we live, work, play and prosper in balance with the natural environment.

Mission

To work with local communities to reduce flood damage, provide access to outdoor spaces, share information about the natural environment, and make the watershed more resilient to climate change.

Strategic Priorities

1. Protect life and minimize property damage from flooding and erosion.
2. Improve the health of the Grand River watershed.
3. Connect people to the environment through outdoor experiences.
4. Manage landholdings in a responsible and sustainable way.
5. Compliance and implementation of the amendments to the Conservation Authorities Act and new regulations.
6. Enhance Indigenous awareness, understanding and relationships.

Purpose of the Conservation Areas Strategy

Under the Conservation Authorities Act, *Ontario Regulation 686/21: Mandatory Programs and Services*, each Conservation Authority in Ontario is required to prepare a Conservation Areas Strategy (Strategy) and Land Inventory (Inventory). The purpose of the Conservation Areas Strategy is to satisfy provincial regulatory requirements and provide an integrated, high-level framework that helps guide and inform future decision-making on all GRCA-owned and controlled lands. For the purposes of this Strategy, this includes lands categorized as conservation areas, conservation lands, controlled/limited access lands and lands used for water management. The Land Inventory provides information on each GRCA property and will support implementation of the Strategy and management of GRCA lands.

This Strategy will provide steps for the continued sustainable management of landholdings while promoting meaningful community connections with the outdoors. It identifies current challenges and key actions to implement over the next five years. While developing the Strategy, the GRCA considered current land uses, program effectiveness, regulatory requirements, and drew upon existing GRCA plans and strategies.

This Strategy was developed in collaboration with staff across multiple departments, Conservation Ontario, staff from adjacent conservation authorities, and in consultation with watershed residents, external interest holders, Mississaugas of the Credit First Nation and Six Nations of the Grand River band councils.

The Grand River Watershed

The Grand River watershed is the largest watershed in southern Ontario, comprising of approximately 6,800 km^2 of land and water. The heart of the watershed, the Grand River, begins as a small stream in the highlands of Dufferin County and travels approximately 310 km south until it drains into Lake Erie at Port Maitland. There are 11 geographically distinct sub-watersheds, and four major tributaries including the Conestogo, Nith, Speed and Eramosa Rivers.

The Grand River has a rich cultural history and deep ties to Indigenous traditions. Prior to settlement, Indigenous people relied on the river for subsistence including transportation, water, and food sources. European settlement began in the 1700s, with communities congregating along the river as it provided a source of water and power for mills. This led to the development of local industries and economic prosperity. Agricultural intensification, population growth, and industrial expansion altered the landscape and resulted in deforestation, draining of wetlands, and habitat loss and fragmentation.

Today, the watershed consists of 38 municipalities, two First Nations reserves, and is home to approximately one million residents, mostly residing in urban cities, towns, and villages. A majority of the watershed remains a rural landscape with intensive agricultural practices. The watershed remains a highly diverse and interconnected system and continues to be heavily influenced by population growth, changes to land cover and resource use, climate change and other stressors that affect the landscape.

Additional information on Grand River watershed conditions and issues can be found in the Water Management Plan (2014), the State of Water Resources (2020), the Watershed-based Resource Management Strategy (2024), and additional resources are located on the GRCA's website: www.grandriver.ca.

A Canadian Heritage River

The Canadian Heritage River System was established in 1984 by the federal, provincial and territorial governments. The goal is to conserve and protect the best examples of

Canadian river heritage, to give them national recognition and to encourage the public to enjoy and appreciate them.

The Grand River and its major tributaries - the Conestogo, Eramosa, Nith and Speed rivers - were designated Canadian Heritage Rivers in 1994. The designation recognizes the outstanding Indigenous and settler cultural heritage values and excellent recreational opportunities along the rivers. The designation carries no regulatory or legal authority or restrictions.

The GRCA's involvement in celebrating heritage within the Grand River watershed is two-fold:

- As custodian of the Canadian Heritage River designation, the GRCA reports to the Canadian Heritage River Secretariat on the status of the Grand River.
- As a property owner, the GRCA provides extensive recreational opportunities on Conservation Areas and Conservation Lands, and some properties are home to cultural heritage features.

Some examples of cultural heritage features on properties owned by the GRCA include:

- The Lake Erie & Northern Railway Line once functioned as an electrical trolley line extending from Cambridge to Lake Erie. It carried passengers from 1917 until 1955, and in 1991 was purchased by the GRCA. In 1994 it opened as the Cambridge to Paris Rail trail and is one of the first abandoned rail lines in Ontario to be converted into recreational trail use.
- The Cambridge Living Levee was constructed for flood control following the large flood event in 1974. It is located on both sides of the banks of the Grand River and is an excellent example of human adaptation to flooding hazards. It has also helped to preserve mills, historic structures and maintain parks, scenery, and recreational opportunities.
- The Bridgeport Dike project commenced following the flood created by Hurricane Hazel in 1954. Throughout 1955-1959, the former Grand Valley Conservation Authority created a 1.5 km long dike to protect surrounding residential, commercial, industrial and recreational lands. This also included channel dredging and placement of gabion groynes.

GRCA Landholdings

History of Land Acquisition

Throughout the mid 1930s the Grand River Conservation Commission was formed to assist in resolving issues from increased industrialization including flooding, drought, water pollution, and other contributing factors to which the Grand River was susceptible. The Commission began identifying and acquiring lands suitable for reservoir development that would serve multiple purposes including flood control, water supply and water quality. The first reservoir constructed was the Shand Dam in 1942, which

created the Belwood Lake reservoir. The construction of additional dams such as Luther Dam and Conestogo Dam followed.

In 1948 a second watershed management agency was formed called the Grand Valley Conservation Authority which aimed to acquire lands to help conserve and restore natural environments and sensitive ecosystems from the impacts of development, urbanization, agricultural intensification and other stressors. Acquisition efforts were focused on priority areas or adjacent to existing properties, often located in the headwaters of the Grand River. Natural hazard lands and recreational lands were also acquired to support resource management and outdoor recreation.

In 1966 the Grand River Conservation Commission and Grand Valley Conservation Authority merged to form the now Grand River Conservation Authority. The new agency continued to build reservoirs, undertake larger-scale water management projects and develop areas for outdoor recreation.

Some of the ways GRCA-owned properties were acquired include through financial support from ~~the~~ provincial and local governments, purchased from private landowners at market-value rates, expropriation, or donated from municipalities, conservation organizations, or watershed residents.

Current Landholdings

A Land Acquisition Policy was approved in 2003 and sets priorities for acquisition candidates. Recent land acquisitions have focused on protecting natural features in priority areas and increasing existing landholdings to expand habitat areas.

The GRCA owns approximately 19,900 hectares of land, which represents approximately three per cent of the total land area within the watershed. These landholdings are used for a variety of purposes that support the GRCA's programs and services, including lands for water control infrastructure, outdoor recreation, environmental education, natural areas, agricultural and commercial leases, rental properties, and lands under maintenance agreements.

The GRCA manages a diverse land portfolio throughout the Grand River watershed. Most of these lands are located in the northern regions of the watershed, or in remote rural areas. Approximately 9.5% of the GRCA's lands are within urban boundaries, including large cities such as Waterloo, Cambridge, and Brantford, as well as smaller towns like Elora, Dunville and Woolwich. Additionally, about 500 hectares of urban parkland is owned by the GRCA but maintained by municipalities through maintenance agreements.

To better understand the multifaceted purposes of the GRCA's properties and to support implementation of the Strategy, the GRCA has established a system of land use categories. These categories classify landholdings based on permitted activities, uses, designations, and the programs and services offered at each location. Four categories have been identified, however in many instances, some parcels may overlap and fall

into more than one category. The Land Inventory identifies the primary and, where applicable, secondary categories for all GRCA properties.

Water Management

Many GRCA properties house important flood management infrastructure including multi-purpose reservoirs, floodwalls, and dikes. They are essential to the GRCA's water management program and support flood control, modelling and forecasting. Approximately 37% of GRCA's landholdings (including land and water areas) are currently used for water infrastructure and flood control.

The GRCA operates seven multi-purpose dams and reservoirs, which are vital to protecting the health and safety of watershed communities within the watershed. These dams provide both flood control and low flow augmentation. Among them, the Shand, Conestogo, and Guelph Lake dams are considered the workhorses of flood control operation and are also used for hydroelectric production. The GRCA also owns 21 small dams, many of which were built in the 1800s and early 1900s. Initially constructed for transportation, waterpower and water supply, these smaller dams now hold recreational, aesthetic or historical value.

In addition to dams and reservoirs, the GRCA owns and manages land with other flood protection systems such as floodwalls and dikes. These systems play a crucial role in safeguarding low-lying areas and communities from significant floods. The GRCA owns lands that contain the Brantford, Bridgeport, Cambridge, Drayton, and New Hamburg dike systems.

Conservation Areas

The GRCA owns and operates 11 fee-for-use conservation areas and the Luther Marsh Wildlife Management Area, collectively called Grand River Conservation Areas. Many of these areas have been established around the multi-purpose reservoirs and their primary purpose is to support GRCA's flood management program. Others are located directly along the Grand River for recreational purposes only.

Grand River Conservation Areas have on-site facilities and infrastructure for public use, including washrooms, gatehouse, pavilions, picnic areas, and camping services such as water, hydro and sewage. These spaces area maintained and supported by full-time and seasonal GRCA personnel.

Grand River Conservation Areas offer both aesthetic appeal and access to water-based recreation. Visitors can experience the outdoors through a variety of recreation-based activities such as camping, biking, birding, hunting, boating, paddling, swimming, hiking, fishing, and picnicking. The GRCA's conservation areas offer Ontario's oldest and second-largest camping program. Additionally, they operate two of the Province's largest outdoor pools, located at Brant and Byng Island Conservation Areas. Six conservation areas are open year-round and offer additional winter programs such as hiking, skiing, and snowshoeing.

The Luther Marsh Wildlife Management Area offers a different, and more limited, range of activities and facilities. Situated in the headwaters of the Grand River watershed, Luther Marsh spans 5,900 hectares and centers around the 1,400-hectare Luther Lake, which was formed by the construction of Luther Dam in 1954. Comprising of a mix of wetlands, fields and forests, Luther Marsh provides essential habitat for a diverse range of birds, animals, plants and trees. Visitors can explore Luther Marsh through activities including hiking, birding, hunting and paddling.

The GRCA's Conservation Areas are vital parts of the recreational infrastructure in their communities, providing locations for a wide range of activities and the opportunity to connect with nature and appreciate the beauty of the Grand River watershed.

Conservation Lands

The GRCA's Conservation Lands are open to the public with no user fees and limited services. They have minimal facilities such as parking lots, trails, garbage receptables and trailhead kiosks. There are no full-time GRCA personnel onsite, however, these areas do require staff support to manage. Conservation Lands help foster an appreciation for nature by immersing visitors in a more naturalized, unstructured outdoor experience on managed trails. Visitors can enjoy passive recreational experiences such as hiking, birding, and photography. These lands also provide habitat for a wide range of plant and animal species. Conservation Lands contribute to 9% of the GRCA's overall landholdings with approximately 125 km of managed trails. Popular Conservation Lands properties include Damascus, Snyder's Flats and F.W.R Dickson Wilderness Area.

Also included in these lands are approximately 75 km of GRCA-owned rail trails such as the Elora Cataract Trailway, Cambridge to Paris Trail, and Brantford to Hamilton Rail Trail which were formed on old railway corridors. These trails often integrate with a larger connected system of trailways maintained by municipalities, associations, and other organizations that link regions and communities.

Controlled or Limited Access Area

Additional GRCA properties are considered controlled or limited access use. These areas are closed to the public due to sensitive ecosystems, natural hazards, or program restrictions. However, access may be authorized through special permissions such as licenses, leases, exclusive-use maintenance agreements, and access permits. These properties do not have GRCA personnel onsite and require limited resources to maintain. Additionally, the GRCA leases property at Belwood Lake and Conestogo Lake for use as seasonal cottage lots.

Hunting is permitted on 21 GRCA properties including lands around Belwood and Conestogo Lake Conservation Areas, Luther Marsh Wildlife Management Area, and 18 other miscellaneous properties. Hunters must have a GRCA hunting permit and proof of provincial and/or federal requirements to hunt on these properties.

Some GRCA properties have natural areas that contain rare, sensitive, or otherwise significant species, communities, and ecosystem functions, all of which contribute to the biological diversity within the watershed. Key natural areas include forests, wetlands, grasslands, river and creek valleys, and other areas. These ecological connections make broader scale linkages of natural features that contribute to the overall watershed ecology. The GRCA undertakes multi-scale projects to conserve, maintain, and enhance natural areas for biodiversity; to improve ecological connectivity and resiliency; to protect drinking water sources; and to mitigate the impacts of flooding and erosion. Approximately 22% of the total area of GRCA's landholdings are not accessible or open to the public.

Land Dispositions

GRCA lands are privately owned and the GRCA is subject to the same legal obligations and restrictions as other private landowners. Periodic reviews of landholdings are completed to ensure that they meet the current needs of the GRCA and as a result, in some instances, some landholdings may be considered surplus. Staff then recommend to the GRCA Board of Directors that the lands be declared surplus and follow established procedures for disposition.

The disposition of land requires approval from the GRCA Board of Directors and may also require additional notification to other agencies. Ministry of Natural Resources and Forestry (MNRF) guidelines govern how some conservation authority land dispositions must take place and how the public is consulted on dispositions.

The Land Disposition Policy outlines the framework and process for disposition of GRCA lands.

Figure 1 Map of Grand River Conservation Areas, rail trails and some Conservation Lands within the Grand River watershed.

GRCA Land Contribution to Watershed Health

The GRCA's land acquisition policies and priorities, along with significant ecological restoration activities, have resulted in landholdings with a high concentration of natural areas and natural hazards lands.

Conservation authorities develop watershed-based programs to protect people and property from risks associated with natural hazards, including flooding, drought, erosion, dynamic beaches and hazardous lands and sites. Hazardous lands and sites consist of wetlands, river stream valleys, shoreline areas, and unstable soils or bedrocks.

The GRCA's major dams, Shand, Luther, Conestogo and Guelph, are operated as a system to reduce flood damages and augment river flows to support municipal water supply withdrawals and improve the capacity of the Grand River to receive treated wastewater.

Flood protection systems, such as floodwalls and dikes, are located along riverbanks, such as those in Bridgeport, Brantford, Caledonia, and Cambridge, serve to reduce the impact of significant floods of similar magnitudes to Hurricane Hazel in 1954. Portions of these dikes are owned by the GRCA while others are owned by the municipalities. Additionally, smaller dikes or berms have been built on GRCA lands in communities like Drayton and New Hamburg.

Before provincial policies were implemented to regulate development on lands with natural hazards, the GRCA acquired numerous properties containing natural hazard features including floodplains, wetlands and areas susceptible to erosion and slope failure.

Out of the approximately 19,900 hectares of land owned by the GRCA, around 11,300 hectares (or 57%) are designated as natural hazard features. This includes:

- 7268 hectares (7%) of floodplain;
- 7137 hectares (36%) of wetlands;
- 500 hectares (3%) of lands with erosion hazards;
- 536 hectares (3%) of lands with steep slope hazards; and
- 429 hectares (2%) of lands prone to impacts from Lake Erie flooding.

In addition to natural hazard lands, the GRCA owns land that makes important contributions to the natural areas of the Grand River watershed. Throughout the decades, strategic land acquisition and significant ecological restoration projects have resulted in a land holding that is close to 90% covered by natural areas: 59% forest (including swamps), 17% open water, 7% marsh, and 6% grassland.

GRCA landholdings cover 3% of the watershed, however, the properties contain:

- 11% of the total watershed wetland area, including 13% of the provincially significant wetland area;

- 7% of the total watershed forest cover, including 13% of the interior forest area;
- 24% of the areas designated as Areas of Scientific and Natural Interest (ANSIs); and
- a substantial area of managed grasslands (380 hectares).

Naturalized areas are especially important in the Upper Grand subwatershed, which is the headwater area of the Grand River. In this subwatershed, GRCA-owned land contains approximately 21% of the area's forest cover and 31% of its wetland area.

GRCA-owned forests, wetlands, grasslands, reservoirs, and streams provide habitat for a wide variety of plants and animals. This includes areas of habitat for uncommon and rare species. Thirty–four GRCA properties contain recorded occurrences of rare species tracked by the provincial Natural Heritage Information Centre or listed as species at risk in Ontario. Ninety-five rare and at-risk species have been recorded on the GRCA's lands.

The GRCA's landholdings make an important contribution to the watershed's ecology and natural environment. However, it's important to acknowledge that maintaining and promoting a healthy watershed also depends on natural heritage features found on lands owned by municipalities, the Province, not-for-profit organizations, and especially on agricultural and other privately-owned lands. Many of the natural features on the GRCA's lands extend beyond property boundaries to form a connected system with natural areas owned and managed by others. A significant example of this is found at the Luther Marsh Wildlife Management Area where a portion of the landholdings are owned by the Province. The GRCA and MNRF collaborate in the management of this important natural area. The GRCA also partners with various watershed municipalities for the management of some properties, often through a formal maintenance agreement.

Challenges and Pressures

The GRCA's lands are one of its most significant assets. Management of the GRCA's lands is complicated by competing land use interests and changing social, economic and environmental conditions.

As the watershed's population grows, so does the demand for access to open, natural spaces, nature-based and river-based recreation, and outdoor experiences. The GRCA will need to continue to address increases in visitation and manage incompatible and conflicting uses on its properties (e.g., prohibited activities, encroachments).

The GRCA's properties are affected by regional and broader scale trends that influence environmental health and use of properties (e.g., habitat loss and fragmentation, invasive species, climate change and other disturbances). These trends will influence property maintenance needs and restoration potential.

The GRCA must continue to invest in the built infrastructure on its properties to ensure that infrastructure is maintained and developed at a level to achieve the organization's objectives. Continued investment in capital infrastructure and maintenance needs is essential for the long-term sustainability of programs and to enhance visitors' connections to the outdoor environment.

The water management infrastructure (e.g., dams, dikes) located on the GRCA's lands will continue to play a critical role in protecting life and minimizing property damage from flooding and erosion, and ensuring sustainable water supplies for communities, economies and ecosystems.

These challenges and pressures collectively mean that the GRCA must strategically allocate resources, prioritize program development areas, and evolve land management practices to be adaptive and flexible. By ensuring that appropriate strategies are implemented, the GRCA can effectively mitigate challenges while optimizing the use of resources.

Conservation Areas Strategy Objectives

The GRCA has established 5 key objectives to serve as a framework for the Strategy. Given the GRCA's diverse land portfolio and wide range of programs, certain lands may contribute to multiple objectives and outcomes, and other lands may only fall under one objective. Some examples of action items are included with each objective to demonstrate pathways towards fulfillment.

The objectives of the Conservation Areas Strategy are to:

1. Manage GRCA landholdings in compliance with relevant Federal, Provincial and Municipal regulations, policies, and guidelines.

The Conservation Authorities Act is the main governing legislation that defines the mandatory programs and services of all conservation authorities in Ontario. Additionally, GRCA-owned lands are governed by other municipal, provincial, and federal regulations that affect operational processes and land management practices.

Outcomes

- Alignment with conservation authority mandatory programs and services.
- A framework for the management of program budgets, funding structures, and financial transparency.
- Defined legal responsibilities as a private landowner to manage risk and liability.
- An enforcement framework for addressing unauthorized activities.

Future Direction

The GRCA is committed to compliance with all regulatory requirements as prescribed by governing organizations. As legislation and regulations evolve, the GRCA will work collaboratively to update processes, integrate changes into operational procedures, and

meet identified deliverables within stated timelines. Ongoing reviews of existing procedures and practices will be undertaken to ensure compliance and identify gaps. Where needed, the GRCA will engage with provincial, municipal and federal authorities and other relevant interest holders.

2. Consider watershed health and resilience when making land management decisions.

The GRCA owns many parcels of land with water management infrastructure as well as natural heritage and hazard features that provide valuable ecosystem functions and services. Conserving and managing natural assets (e.g., forests, wetlands, riparian areas) on the GRCA's lands can provide many benefits, including water storage, pollution control, and wildlife habitat and biodiversity. Restoring and enhancing ecosystem functions can help improve resiliency to climate change.

Outcomes

- Reduction of flood and erosion damages as a result of well-maintained and operated water management infrastructure.
- Maintained and improved hydrologic functions, such as infiltration of precipitation and groundwater recharge, groundwater storage and discharge, and capture of runoff of precipitation in landscape depressions.
- Improved natural cover in riparian, forest, wetland and grassland ecosystems on suitable lands.
- Conservation of ecologically sensitive lands and improved biodiversity.
- Increased resiliency to climate change impacts and other disturbances.

Future Direction

As communities continue to grow, climate changes, and competing pressures rise on lands and waters, the GRCA's landholdings and infrastructure will continue to make important contributions to water management and natural heritage. Considering ecosystem health and watershed science in land management decisions will help ensure the GRCA's lands are resilient to changing conditions and contribute to the health of the Grand River watershed. The GRCA will:

- Develop a restoration strategy that identifies priorities for natural heritage projects and resources.
- Consider climate change and other disturbances (e.g., invasive species) when developing future land management strategies.
- Implement the Natural Hazard Infrastructure Asset Management Plan to support the operation, maintenance, repair and decommissioning of water and erosion control infrastructure.
- Review and confirm land ownership for water control structures.

Actions:

- Natural Heritage Restoration Strategy
- Maintenance & Management Plans - Including 5 Year Operating Plans for Existing Grassland, Wetland, Forest Restoration Projects
- Natural Hazard Infrastructure Asset Management Plan

3. Provide sustainable outdoor recreational and educational opportunities and connections with the natural environment.

The GRCA's Conservation Area, Outdoor Environmental Education, and Conservation Land programs offer a variety of outdoor recreational and nature-based activities throughout the Grand River watershed. Visitors are encouraged to connect with the environment and foster an appreciation for nature. Programs managed through conservation areas and outdoor environmental education are fee-for-use, and programs managed through conservation lands, such as passive recreation, are provided at no cost to the user.

The Canadian Heritage River designation recognizes the countless recreational activities that the Grand River watershed offers, many of which occur on or near the GRCA's properties, such as:

- Boating - canoeing, kayaking, motorized boating
- Angling - sport fishing, ice fishing
- Water sports - swimming, water skiing, stand-up paddleboarding
- Water associated activities - hiking, hunting, camping
- Winter activities – cross country skiing, snowshoeing
- Natural heritage appreciation - wildlife viewing, scenic views
- Human heritage appreciation - sporting events, visiting historic sites

Outcomes

- Access to greenspaces for watershed residents to enjoy a wide range of natural landscapes, celebrate the ecological diversity of the watershed, and experience the benefits of being outdoors.
- Comprehensive programs that prioritize both environmental sustainability and financial resilience.
- Access to outdoor programs in a safe, welcoming, and managed setting.
- A variety of outdoor recreational opportunities that resonate with visitors on a personal level (e.g., camping, hiking, hunting, swimming).
- Recognition and celebration of the heritage values of the Grand River and the GRCA's nature-based recreation programs and properties.

Future Direction

Providing memorable outdoor experiences and cultivating visitor relationships is core to the GRCA's outdoor recreational, educational and environmental programs. With an annual rise in visitation rates and an expanding customer base, it is important that program areas adapt to match the current user demands while ensuring sustainable environmental and financial resources. To do this the GRCA will:

- Develop an Asset Management Plan for conservation areas, conservation lands and outdoor environmental education to better document current and future assets needs.
- Identify opportunities to improve accessibility and reduce potential barriers where possible.
- Understand current usership and capacity pressures and refine visitor management strategies.
- Maintain environmental health within conservation areas and lands.
- Continue to evaluate all programs identified as Category 3, per *O. Reg. 686/21*, to ensure they have sustainable funding sources; and explore alternative revenue generation opportunities.
- Maintain a holistic operating approach and encourage departmental synergies.
- Review existing plans and projects related to management plans, operations, capital projects and policies, and ensure they are current and applicable.
- Maintain the designation of the Grand River as a Canadian Heritage River.

Actions:

- Trail Standards Strategy
- Signage Strategy
- Annual and decadal reporting to the Canadian Heritage River Secretariat
- GRCA Property Asset Management Plan
- Conservation Area Standard Operating Procedures

4. Enhance community partnerships on GRCA properties.

The GRCA partners with watershed municipalities, First Nations, and environmental organizations and others to support mutual benefits on GRCA-owned lands. Shared interest among partnerships includes river-related links and trails, conservation of appropriate lands, recreational, educational and economic opportunities, and areas that support municipal and community infrastructure.

Outcomes

- Increased access to outdoor spaces fosters community connections, public knowledge, environmental awareness and stewardship.

- Opportunities for tourism and economic development.
- Synergistic, collaborative and effective relationships with organizations who share aligned goals and priorities.
- Opportunities to share resources and fulfill service gaps.
- Opportunities for environmental conservation, research, and habitat management on ecologically valuable lands.
- Enhanced relationships with First Nations and increased understanding of how to better incorporate Indigenous values in land management decisions, where applicable.

Future Direction

Partnerships are key to the ongoing success of our land management programs, and many projects and services rely on these collaborative relationships. The GRCA will:

- Maintain positive and effective relationships with current partners.
- Where feasible, identify opportunities for new partnerships with organizations that have similar interests and values.
- Identify how properties benefit watershed municipalities and influence the local economic landscape.
- Grow our relationships with Six Nations of the Grand River and Mississaugas of the Credit First Nation through engagement and collaboration.
- Maintain and improve public access to recreational opportunities, where suitable, through maintenance agreements with local municipalities.

Actions:

- Agreement Standards
- Research Permit Process
- Engagement Guidelines (Indigenous communities)

5. Manage GRCA landholdings in a strategic, fiscally responsible, and sustainable way.

The 1930s to 1980s was a rapid period of land acquisition to support a variety of initiatives and projects. Throughout the years, land management priorities and programs have evolved. Depending on the needs of the Authority, acquisitions, dispositions, maintenance agreements, easements, donations, land exchanges, or land transfers may be considered. Priorities for changes to the GRCA's landholdings are outlined in the GRCA's policies for acquisition and dispositions.

Outcomes

- Fiscally responsible land ownership that aligns with GRCA's strategic priorities and mandatory programs and services.
- Land management programs aimed to reduce risk and liability, promote public safety, and ensure appropriate use of land.
- Support for municipal infrastructure through approval of sales, maintenance agreements, easements, and land exchanges.

Future Direction

Strategic and financially responsible management decisions are essential to maintain the GRCA's land portfolio and programs. As environmental and economic factors change, the GRCA must review program areas and permitted uses on GRCA lands. The GRCA will:

- Maintain the land inventory with up-to-date property ownership information.
- Establish criteria to prioritize updating and developing land management plans.
- Ensure effective strategies are in place for managing trespassing, encroachments, encampments, and prohibited activities including public education and enforcement.
- Consider new opportunities to generate revenue and help offset operating costs and capital needs.
- Ensure the cottage lot program is in conformity with existing policies.

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Actions:

- Residential Tenancy Winddown
- Conservation Area Enforcement Manual
- Conservation Lands Strategy

Programs and Services

Table 1. Identification of Category 1 "mandatory", Category 2 "municipal" and Category 3 "other" programs and services provided on GRCA owned land and respective funding sources.

Category	Program	Funding source
1	Conservation Lands Management	• Municipal Apportionment • Reserves • Self-generated program revenue
1	Watershed Management (Some monitoring stations are located on GRCA-owned lands)	• Municipal Apportionment • Self-generated program revenue • Reserves

1	Flood Forecasting & Warning (FFW) (Some dams and stream flow gauges are located on GRCA-owned lands)	• Municipal Apportionment • Provincial/ Federal / Other Municipal • Reserves
1	Water Control Structures-Flood Control, Small Dams & Ice Management (Some flood control structures are located on GRCA-owned lands)	• Municipal Apportionment • Provincial/ Federal / Other Municipal • Reserves
2	Watershed Services (Some continuous water quality stations are located on GRCA owned lands)	• Municipal MOU Apportionment • Provincial/ Federal / Other Municipal
3	Burford Tree Nursery Operations and Planting Operations	• Self-generated program revenue
3	Environmental Education	• Self-generated program revenue
3	Property Rentals	• Self-generated program revenue
3	Conservation Areas	• Self-generated program revenue • Reserves
3	Hydro Production	• Self-generated program revenue

For more information on Category 1, 2, and 3 programs, refer to GRCA's *Inventory of Programs and Services – Final Version.*

Looking Forward

The Grand River Watershed is a dynamic and interconnected network that supports natural environments, local communities, and economic prosperity. As stewards of the land and water, it is important that the GRCA continues to work collaboratively and innovatively with all levels of government, watershed municipalities, and other stakeholders to maintain a healthy, vibrant, and resilient watershed for future generations. Implementation of this Conservation Areas Strategy forges a cohesive pathway to meet objectives, manage landholdings sustainably, conserve the natural environment, and offer programs and services in alignment with the GRCA's mission, values, and strategic priorities.

Updates to the Strategy

The Strategy will be reviewed every five years and updated as needed. Oversight of revisions will be coordinated by the Manager of Conservation Area Operations and the Manager of Conservation Lands. Changes to the Strategy are approved by the GRCA. The most current version of the Strategy will be published on the GRCA website.

Consultation

Consultation will be conducted in a transparent, accessible, inclusive, respectful, and timely manner using consultation best practices. Prior to publication of any updates to the Strategy, the Mississaugas of the Credit First Nation and Six Nations of the Grand River band councils, as well as public interest holders, will be consulted in a manner that is appropriate at the time of the update.

Do you have any additional comments on the Strategy objectives?
Better management and more access to superintendent (we never see ours at the park)
Reconsider fees charged for Conservation Areas. For families with limited incomes, the fees are really too high. Advertise membership in more places and more often.
Not at this time.
Thanks for an excellent job!
Better communication and action dates
No
No
no
No
Do a better job connecting local residents with local parks/trails. Perfect example is the Elora Quarry - locals hardly use it any more. You should open up the first week (maybe in place of one of the tv/film shoots) for locals to reconnect with their local natural environment.
Invasive Species Management needs to be addressed such as LDD moths What are you doing about managing cottaging? -what are your building standards - cottages seem to be getting larger - what are you dock requirements - they seem to get larger -how are these structures affecting the environment and water - cottagers should have naturalize waterfronts not grasslands as they encourage pollution from various birds and cottagers tend to use fertilizer thereby increasing the phosphorous levels in the water What are you doing to prevent blue-green algae and high ecoli?
No
No
n/a
No
After using other rail trails the Cambridge to Paris trail is largely neglected and in need of upgrades. Funding through Provincial or Federal government or local business could be sought out for this work.
None
n/a
no
No
Don't be so close minded and listen to users of the parks more. Don't make blanket policies for all parks. All parks can have the same goals with regards to financials and conservation but they need to be treated individually. Some parks have lots of things to do while others don't. There has been and continues to be many missed opportunities for generating income at Guelph lake. I have seen things deteriorate year after year there, but this year it has been over the top! And also the wasteful spending at Guelph lake is unreal. 1.5 million to build the new office /maintenance building was ridiculous , especially when you already own the land! Its a waste of money having 4 employees in the gatehouse at a time. Usually 3 girls are in the gatehouse and only 1 is tending to customers coming through the gate. The rest just sit there chatting. Seeing 3 security personnel driving around in 1 truck but never getting out to correct people breaking rules is ridiculous. 2 Saturdays ago, I witnessed 5 cars that had driven through the open gate at the main beach and backed there cars right up to the beach sand and partied and picnicked all day with music blaring. I had to run to move my daughter out of the way as she was playing in the sand close to where this was occurring. No Security came to correct this issue! I stopped at the gate on my way out and let the gate staff know, but I doubt anything was done about it. You see the maintenance people driving around on Gators a lot, quite fast at times (more than the 25km limit) and never get off to pick up trash left by patrons. There are no garbage cans throughout the park for people to throw out their trash, so many just leave the trash laying around. Also, being a conservation area, why are full-size trucks being used for security? Wouldn't electric golf carts or Gators be better for the environment and cost less to operate? Especially in a "conservation area"? The roads are full of potholes, the bathrooms need to be cleaned more frequently and rules are not being followed that are huge safety issues. I understand that a new Superintendent is now managing Guelph lake and it shows. The difference between this year and last year is quite significant. The park is unkept, the staff are not doing there jobs and rules are being broken and not addressed. The park is not even close to being what it once was and is getting worse by the day.
no
Don't bend to the whim of political pressures.
No
Missing strategy: To protect environment/wildlife/watershed from over exposure and environmental grooming of natural areas mainly in regards to invasive species, manicured nature and human garbage.
Read below
Don’t trust the province

Do you have any additional comments on the Strategy objectives?
As a hunter I obviously would want more hunting areas to be added - 3 have been removed in the last 4 or 5 years!! Also the GRCA needs to ensure that: a) the Tracts currently on the Miscellaneous Hunting Areas list are managed and maintained so they remain accessible (the state of many of these areas has vastly deteriorated over the last 20 years!); b) when areas are being “forest-managed” and trees are cut on a large scale, the timber cut so far has made many of those areas now impassable without risk to life and limb!!!! Maybe as a suggestion, when cutting trees in a line/lane, at least clear one of every 3 or 4 lines/lanes, so one can still traverse the tract without having to climb over boles and trunks! Thank you🙏
No
"Enhanced relationships with First Nations and increased understanding of how to better incorporate Indigenous values in land management decisions, where applicable." sums it up nicely
No
Not sure why selling land is necessary
We need more GRCA Conservation areas and more of The Grand River needs to be protected. Adjacent properties are being turned into large private developments not beneficial to the general public.
no
I just hope that the GRCA doesn't feel pressured to sell land due to financial constraints or provincial government demands, especially land that is important for flood management or watershed health in the long term.
Control beaver activity as they are destroying wildlife and trees! I realize they are a protected fur bearing animal but they DO need to be controlled. Nothing is being done about flooding from these creatures.
I don't believe 'compliance' provides sufficient protection to CA lands. ie CA lands should be managed in favour of more protection from development.
Yes I think GRCA and other conservation authorities should always inform the public if the areas are accessible by public transit. I think that Rockwood can be reached by GO bus on hwy 7. I travelled by bus to Rockwood with a grandchild decades ago from Toronto and we camped there, meeting other family members. Private car use should be discouraged where practical
I am appalled to hear that the Kortright Waterfowl Park by Niska Road in Guelph may be developed into a new subdivision. Much biodiversity lives there, snapping turtles, owls, coyote, Igris during summer, rabbits as well as many plants such as birch, cedar, pine, old maple trees, lily pads, columbine etc. Turning this land into a subdivision will be such a great loss to the residents of Guelph. It would not take much effort to form a committee of people (perhaps in collaboration with the Guelph Hiking Club) who already use these trails on a daily basis and would be more than willing to help with the upkeep of this beautiful area. And for the developers out there, there is plenty of land elsewhere to build on. Please let this piece of paradise live and be enjoyed by everyone.
Keep people well informed
Governments change, and some are less concerned with the ecosystem (Doug Ford). I would like to see the GRCA be able to operate as the voice of defence of the land outside of politics, rather than “in compliance with”. Once the land is developed, there is no returning.
You state one of your objectives is to “provide sustainable outdoor recreational and educational opportunities and connections with the natural environment”. We live in Elora and, given the significant barriers the GRCA imposes for even the most basic outdoor activity of walking, it is surprising that this is, in fact, one of its objectives. We have walked, hiked and cycled in many areas across Canada and internationally and, sadly, our home area falls far behind others. Despite the GRCA saying that it aims to provide access to outdoor programs, including in a “welcoming” setting, this is not at all the message the GRCA is delivering. We hear a lot about mental health, the fact that kids are spending too much time on their screens, and about the prevalence of obesity with young people, to name but a few ‘hot’ topics. Being outdoors is of tremendous value in combatting all these things. We are so fortunate to live in an area that nature has blessed with beauty and where open spaces that seem a world away from the congestion of Toronto. Yet, the GRCA’s motto seems to do “Stay Away” and “Stay Out”. Among other things: 1. Despite the GRCA’s property touching the centre of town, there is no “permitted” access from town. Rather, we are obliged to drive to one of the parking lots (not within easy walking distance from town) to access the trails. 2. Despite the GRCA being fully aware that the fences erected in town are continually cut by those who insist on having access from town, it continues to erect barriers which, in at least one case, have increasingly forced those who are intent on accessing the gorge to go dangerously close to the edge of the gorge, thereby knowingly increasing the potential of a fatal accident. 3. Despite that fact that the GRCA’s lands are in Canada, with relatively cold weather for 6 months of the year, the GRCA has somehow concluded that providing access to the outdoors in winter is irrelevant. This is a fundamentally incorrect assumption and, with the shorter darker days, having access to the outdoors is even more important for mental health.
No additional comments
There should be more designated green spaces than the province is currently requiring developers to contribute
Excited to see a watershed approach being taken with GRCA lands.
Do not sell any GRCA land.
No part of our conversation areas should be sold under any circumstances. Especially Laurel creek. We need to do the absolute most to keep the green spaces we have in cities.

Do you have any additional comments on the Strategy objectives?
The Strategy is high level. Would like to see more engagement with local municipal and their community and work to identify areas where land use could be modified , enhanced to improve the water quality and reduce flooding. Revamp Rural Water Quality and promote it more. Where the GRCA sees areas contributing to a decline in overall health of river and water shed and having a negative effect on the river banks, work with land owners to come up with solutions and if necessary fine or charge land owners who choose not to be enviromental stewards. We dont have time to waste.
I'm a bit conflicted with prioritizing the objectives. I don't see any point to this exercise.
No i do not
Guelph doesn't have enough parkland, even with GRCA managed lands included. The Niska/Hanlon Creek/Kortright Waterfowl lands absolutely needs to remain within the holdings of GRCA or the city of Guelph to maintain watershed health and resilience, enhance community partnership and it is strategic, fiscally responsible and sustainable.
The strategy does not contain any specific, measurable goals around activating public access to inactive landholdings. There is nothing in the Conservation Area Strategy about increasing conservation land holdings to respond to population growth pressures and increased community demand for recreation. There are no metrics for land acquisition. Specifically the Hanlon Creek Conservation Area plan should be revisited and activated as part of the Conservation Area Strategy (The Niska Lands). Responding to and mitigating climate change should be a strategic priority. There is a very small percentage of the land holdings which are grassland - this needs to be increased..
Please don’t let developers gain any more green space
Need more focus on climate change and the future resilience that will be required. Please don’t sell off any lands. Please work on acquiring more like previous generations had the foresight for. Please keep the nature centers open for youth education.
Balance of environmental and fiscal concerns
Why is there such a focus on flooding. Is there something GRCA know that the public does not. Do you know anything about the initiative the federal government (Freeland)has put out regarding need for flood insurance.
No
Climate change mitigation and adaptation need to be added to your overall goals. Conservation lands play an important role in flood control, carbon sequestration, and protection of plant and animal species. We need to protect these green spaces for our immediate and long term well being.
no
When you sell off land for short-term gain, you are not thinking of future generations. The GRCA should be protecting our conservation land legacy, not cashing it in. This is a betrayal of your mandate. Sale of conservation lands only benefit developers, not citizens.
The GRCA should honour the land gifts received, and not sell them for profit. Keep the Niska (former Kortright Waterfowl Park). Develop it, don't sell it
It makes me sad to see that there is nothing about preserving conservation land.
Generally ranked from the core mandate (watershed protection and enhancement) down.
No
The reward of protecting land for future generations as well as preserving it's beauty allowing people to connect with nature far outweighs the financial gain of selling. We should be focusing on repurposing brown space and abandoned property already developed
Don’t sell off any land or water
Please keep the Waterfowl park in Guelph as part of the GRCA and develop it for sustainable recreational use. Please do not sell it for development.
Don’t sell Kortright trails. We need this green space in Guelph. People need access to natural areas and if population grows the green space needs to grow, not be reduced.
sell land that is not required to meet strategic objectives keep things simple and understandable for the average person. listen to the people----experts aren't the only ones with valuable opinion.
Preserve the Niska Lands as parkland for the public.
Do not sell GRCA land to developers
Do not sell assets to satisfy capital needs. GRCA is not a developer, rather a conservator.
Protect more land, not less
The mental health of all residents requires more green spaces and natural habitats
We must not take away any more land from wildlife areas...
Niska Road is gem that the community loves. Developing it will be devastating for users and for animal habitat.
We need to maintain the outdoor spaces we have left for communities
don't sell the land to developers!
Sale of lands is NOT an option to be considered in strategy. It is a land grab by the provincial government.
No
Not at this time
Don't sell the Niska former waterfowl space! It's such a gift to wander through this community space!
No additional comments.

Do you have any additional comments on the Strategy objectives?
Government policies should not decrease protected GRCA lands
Do not sell Niska/kortright conservation area. Thanks.
I think the fact that it is called the conservation authority means the land should be kept as conservation land and not sold off for housing ever.
Keep and expand parkland and natural spaces-in Guelph Yorkand Green Hib is importamt
The Niska lands in Guelph need to be preserved, to provide natural habitat and greenspace within the city. The city of Guelph is already lacking parkland, as new developers are given the option of providing parks, or cash in lieu, and always choose the latter option. Guelph doesn't need to be stripped of even more natural space. It's unhealthy for the environment and for the residents of the city.
Lobby the Government to restore integrity of thr GRCA!!!
I placed my objectives based on the lack of faith I have in the current government's approach to preserving the natural environment.
Please do not sell or develop the Niska Rd property, it has a deep connection to the city and it's residents being the former site of the Kortright Waterfowl Park.
The recurring use of the word "sustainable" inspires concern that sale and development are the real "objectives". Further, "compliance with relevant" government regulations surrenders to potentially reckless, environmentally-harmful political agendas.
The objectives are clear and intentional.
They don't include anything about the procurement of any lands to expand the GRCA or prevent the disposal of any properties for non-recreational and education uses
I agree that sustainability is a key mandate of the GRCA. However, there needs to be an emphasis placed on preserving and maintaining a certain amount of greenspace, and indeed watershed capabilities, for future generations as well.
N/A
The objectives are vague and could be misinterpreted. For example, fiscal responsibility could be thought to include solvency of currently owned properties to provide income to manage other areas. This is not acceptable. I noted neutral in developing connection with community members since many times I have noticed the negative impact visitors to protected areas have on the natural surrounding i.e. garbage, land encroachment, abuse of natural growth, noise, impact on wildlife
First Nations should & must be consulted, engaged & assume leadership positions in the development of any "Strategy" involving GRCA lands. Informed & responsible Stewardship - not governmental policies - is what must guide GRCA strategic plans & actions. Red flags are raised every- & anytime developers are involved in or will benefit from GRCA strategies/plans because of environmental & ground/surface water impacts.
Sale of greenspace for housing in an area without main road infrastructure in a community that needs the greenspace is irresponsible
NA
I'm not sure of the meaning of 3 of the objectives, so I did not respond to the survey items pertaining to them in Question 6 above. Regardless, I strongly agree with any objective that PRESERVES OUR CONSERVATION AREAS AND DOES NOT ALLOW HOUSING OR OTHER NON-NATURAL DEVELOPMENT on these sites.
The language around fiscal responsibility is leaning towards divestment and or neglect. It would be shortsighted and reckless to diminish this area. We need more parkland and access to nature. It is not a tradeoff with housing. Access to nature makes high density living tolerable and humane.
I'm a birder, a dog walker, and a parent. It's important to me that the Conservation Area Strategy consider increasing conservation land - especially grassland, to help migratory and year-round bird species, and to ensure that other families are able to discover and use the conservation lands even as we grow. The green spaces around Guelph are a big reason why we decided to move here, and I think continue to be a draw. Also - climate change! It continues to be a crisis. How can we address this emergency in the plan? This should be a priority.
Selling the land is wrong
no
Do not sell any surplus land. Surplus today may be required tomorrow. Once it's gone it cannot easily be replaced.
Happy to see mention of forming stronger working relationships with Indigenous people.
Please protect the property owned by GRCA from development
Please help preserve our natural park space and environment.... we are losing our lands.
Have great concerns about GRCA selling land.
No
The strategy should be looking to increase land holdings to account for population growth and the benefits of all citizens to be able to access recreational lands
- The strategy does not contain any specific, measurable goals around activating public access to inactive landholdings. - There is nothing in the Conservation Area Strategy about increasing conservation land holdings to respond to population growth pressures and increased community demand for recreation. - There are no metrics for land acquisition. - Specifically the Hanlon Creek Conservation Area plan should be revisited and activated as part of the Conservation Area Strategy. - Responding to and mitigating climate change should be a strategic priority. - There is a very small percentage of the land holdings which are grassland - this needs to be increased..
Please do NOT sell the Niska/Kortright lands in Guelph, and honour the core mandate of "Connecting people to the environment through outdoor experiences.

Do you have any additional comments on the Strategy objectives?
GRCA should aim to sustain and increase land holdings dedicated to publicly accessible recreational/parkland within or contiguous to municipal boundaries.
The strategy does not contain any specific, measurable goals around activating public access to inactive landholdings. There is nothing in the Conservation Area Strategy about increasing conservation land holdings to respond to population growth pressures and increased community demand for recreation. This in my opinion is key - we need more green spaces for recreation and for public mental and physical health. There are no metrics for land acquisition. Specifically the Hanlon Creek Conservation Area plan should be revisited and activated as part of the Conservation Area Strategy. Responding to and mitigating climate change should be a strategic priority. There is a very small percentage of the land holdings which are grassland - this needs to be increased.
Please do not consider selling the Kortright/niska conservation area.
Do not sell the Niska/Kortright lands. The name "conservation lands" should be an indicator that these lands should not be developed and should remain natural areas. My family and I are firmly against the selling of the lands.
Protect what the GRCA has, increase conservation efforts by not selling valuable, much needed forests and lands. Continue building future stewards of nature by keeping and increasing lands, not reducing the hectares.
Environment is the most important
No Conservation Areas should be lost or sold.
None of the Niska landholdings should be sold
DO NOT sell Kortright Waterfowl park
No
Maintenance of the lands around the Grand River for nature enjoyment, water quality, habitat quality for flora and fauna around the river and reiver banks.
I support these objectives but decisions are being made that are contradictory.
Please do not sell off our conservation land! We will never get these back. They need to stay in conservation.
Promote conservation and biodiversity for future generations.
No
No
There is nothing in the Conservation Area Strategy about increasing conservation land holdings to respond to population growth pressures and increased community demand for recreation. We walk through Crane park and the niska bridge area weekly. It is such an important space in our community and should be protected.
No
CONSERVE!
No
Responding to and mitigating climate change should be a strategic priority.
The wording of these priorities masks the purpose. I'm very concerned about the GRCA selling land for development. Is selling land in keeping with provincial priorities? Obviously the GRCA needs to abide by the laws of Ontario, but if managing land holdings means selling supposedly "excess" land then I am firmly opposed.
Continue to protect the natural environment surrounding GRCA areas and out of the hands of those looking to destroy what little green space we have left.
No
there are no metrics for land acquisition
No
The only thing that that should really matter is keeping the watershed healthy. Lands should not be sold. We have lost too much to development. It's not all about humans - we have a lot to answer for in the way we have maintained the land.
As our population has grown demand for outdoor space has as well- the areas close to us are a lot busier than they ever have been before because people drive from the GTA to enjoy. Sometimes deterring locals from going because so busy. We need more spaces for the community to connect and enjoy the outdoors and protections in place to safeguard the parks and trails for generations to come
None.
None of the Niska landholdings should be sold! The agricultural fields are candidates for picnic areas, sports fields, or restoration, as suggested by the Mississaugas of the Credit First Nation and the Six Nations. This proposed Conservation Area Strategy is not clear about the fact that the GRCA is selling land in order to finance capital projects. This is a betrayal of the mandate of the GRCA under the guise of "fiscal responsibility". It is not a sustainable method of funding capital projects, and does not protect our watershed.
No
Do not sell conservation lands!!!
We need to stop using outdoor recreational and educational land to build homes
It's time to get Doug Ford and his government out! This premiere is not fit for office. He's uneducated, ignorant and corrupt. He doesn't believe in the science and in regards to the environment and protecting our wet lands he will destroy all in order to line the pockets of the developers and his cronies. His devious illinformed actions will have terrible consequences for our communities and the people of Ontario in the generations to come.
None
Recent provincial government actions regarding CA's make it increasingly difficult, but CA'a must do whatever is possible to maintain their original objectives, as mandated by former governments.
Do NOT SELL OF THE NISKA / KORTRIGHT LANDS IN GUELPH.

Do you have any additional comments on the Strategy objectives?
Please rehabilitate and open the former Kortright Waterfowl Park lands for public use.
Don't restrict access to Conservation Areas in winter months
N/A
Our urban populations NEED to have more, not less, access to natural areas for their well-being. This works out perfectly well with the mandate of conservation authorities to protect land that prevents flooding and loss of habitat.
Managing landholdings in a fiscally responsible way should not include sale of land.
The GRCA must NOT sell the Niska/Kortright lands in Guelph. Ontario needs to protect even more wetlands from development to mitigate flooding, and to provide outdoor experience opportunities for people to connect to the environment.
Don’t sell the Niska Lands
With Climate Change happening, we need to protect our conservation lands, not give them up. We need more spaces for people to visit and we need to protect more wildlife not less. I think conservation authorities should be fighting as hard as they can against the whims of fluctuating gov'ts, who don't seem to be educated in environmental matters, and so willing to give up our future generation's health and well being, and also willing to give up on habitat, and the past wonderful and important work done by conservation authorities, this is so depressing.
I treasure these open areas and trails and do not want to lose any of this land to development
Kortright waterfowl park has always been in my life till present. Visiting the water and wildlife. I started my life going there in 1967 everyday with mom and kids riding our bikes there with picnic lunches and staying most of the day. We were and very fortunate to have this beautiful place in Guelph. If only every city had this.
Preservation of wetlands and natural green corridors are essential within urban areas.
Do not sell properties
The Kortright Lands were thought to be necessary, were paid for by taxpayers and should be protected from short sighted, temporary elected officials.
No
PLease do not sell the Niska/Kortright property.
No
The GRCA needs to honour their core mandate of connecting people with the environment through outdoor experiences. The loss of natural parks does not correspond with a healthy & vibrant community & the land is not needed for hoiding requirements.
Do not sell our conservation lands
Please do not sell off the GRCA land holdings around the Niska Rd and bridge
I recently moved to Guelph because of the balance of community and nature. Do not sell/give up conservation land.
Climate change mitigation and response should be prioritized. The need for increasing public outdoor spaces should be considered, not just developing all of them to house population growth.
Please do not sell the Niska/Kortright conservation land to developers. It is such a beautiful piece of land for walking and enjoying nature. We need adequate green space for our overall health and well-being.
Community partnerships should include listening to and .mobilizing the support and involvement of local residents.
Selling conservation land to develop homes would be a shame. My heart hurts at the idea of the GRCA losing important green space.
Politicians come and go; once land is sold and built on, it's gone forever for future generations.   I understand fiscal responsibility; reach out to the public who loves our parks to try finding unique ways to raise funds. I've had memberships in the past, I'd be more than willing to get them again to help the grca out.
Keep our green spaces that are in town.
DO NOT SELL lands for housing development.
Own less land and I give it back/sell it off particularly where you’ve taken agricultural land out of production.
The strategy does not contain any specific, measurable goals around activating public access to inactive landholdings. Furthermore there is nothing in the Conservation Area Strategy about increasing conservation land holdings to respond to population growth pressures and increased community demand for recreation. The Hanlon Creek Conservation Area plan should be revisited and activated as part of the Conservation Area Strategy. Responding to and mitigating climate change should be a strategic priority. There is a very small percentage of the land holdings which are grassland and this needs to be increased.
Do not develop housing in kortright waterfowl park area
Please dont sell the Niska/Kortright Lands
Yes don't sell conservation lands to fund housing
Increase lands available for nature, hiking, outdoor enthusiasts.
It's important to update strategic objectives in light of climate change and population growth.
Keep conservation areas.
Do NOT sell off the land by the old Bird Sanctuary!!11
do a better job at preserving what you own..
No
no
No

Do you have any additional comments on the Strategy objectives?
The point of view that wildfire depends on many of the areas needs to be emphasized more. Your goals are very human centric.
Do not sell off conservation areas. Protect the ecology.
I'm not opposed to partnerships but I need to understand what ideas are circulating. Additionally I agree with fiscal responsibility and a strategic approach but in partnership with sustainability.
The health and resilience of the ecosystem is paramount. When the land suffers so does everyone on it. I'm hoping for a new provincial government in the next election that will be more pro-land and pro-people.
Stewarding and protecting the lands and waters and animal life should be the primary objective. Along with Indigenous-led and partnered conservation. Also it is vital to 'indigenize' your policies and strategies and intentions (more balanced ways of living/working that we can also likely find, if we look back far enough in all our settler lineages). Vital to disconnect from colonial practices, intentions & actions, that support continued 'expansion', 'development' and profit, 'dominance of man' exploitive, extractive thinking and actions. Focus on restoring health and well-being to all the lands and waters, and respecting inherent sovereignty and rights of the waters,lands and nature, and working to restore biodiversity, rewilding, planting native species etc., and also cleaning up the watershed so that the water is once again healthy, naturally flowing, and 'drinkable' again - that is our colonial responsibility and accountability to restore. Also, what are your actions and commitments for Truth & Reconciliation? What are your actions and commitments for Land Back ?
Do not allow the land to be sold for housing
Yes, keep the NISKA lands out of developers hands.
No.
Everything depends upon a healthy, thriving environment. This might be more explicit here. The term viable ecosystems should be there. We depend upon these. So everything the GRCA does has to and should contribute to vibrant ecosystems. That should be explicit in the now general wraparound term "sustainable development".
•Responding to and mitigating climate change should be a strategic priority. There is nothing in the Conservation Area Strategy about increasing conservation land holdings to respond to population growth pressures and increased community demand for recreation. Number one concern should be the environment and wildlife protection of these sensitive areas.
Don't sell Kortright!!!
There's never been a more important time to protect our natural areas and waterways. Thank you for your important work.
I do not support selling conservation lands in order to build housing. This is so backwards. We need to be setting aside more conservation lands, not infilling wetlands. I'm referring to Niska/Kortright lands
I would agree with the levels of government if they are being responsible with their decision-making and not proposing things that would impact or destroy the watershed, such as Doug Ford's Conservative's housing development proposal.
No
If provincial, federal or municipal regulations are not strong enough to protect and keep GRCA properties sustainable and in public hands, GRCA might have to ignore or move beyond them
Conservation lands essential to balance impacts of continued intensive development within the watershed (urban growth, big ag impacts on water quality; seen and unseen consequences of climate change)
Don't develop gcra land. You can maintain it to keep it safe but don't sell it to be developed. We are loosing to much forest at a rapid rate.
Please don't let Ford ruin our protected natural sites.
I am concerned about the potential sale of 20 acres of the Kortright Waterfowl Park. I know provincial legislation is guiding this and I am opposed. All conservation lands need to be maintained in perpetuity. We have existing land zoned for housing well into the future. We want to maintain the health and resilience of our watershed.
Responding to and mitigating climate change should be a top strategic priority! Protect all flood plains from development. There is nothing in the Conservation Area Strategy about increasing conservation land holdings to respond to population growth pressures and increased community demand for recreation. There are no metrics for land acquisition. The Hanlon Creek Conservation Area plan should be revisited and activated as part of the Conservation Area Strategy. Increase grasslands!
In the face of climate change, urban sprawl, monocultural farming, and skyrocketing biodiversity loss/extinctions, there is no such thing as "surplus conservation land". The GRCA must not sell the Niska/Kortright lands in Guelph. It is bad environmental stewardship, and contrary to the GRCA's core mandate of connecting people to the environment through outdoor experiences. These lands were acquired nearly 50 years ago with joint municipal and ministry funds, for the purposes of protecting them from development. It is unethical, shortsighted, and unsustainable to "cash them out" to fund infrastructure projects. I consider it a betrayal of the GRCA's foundational governing principles. Please do not further consider any plan to treat these valuable natural lands as "surplus" or eligible to be placed on the market.
No.

Do you have any additional comments on the Strategy objectives?
- There is nothing in the Conservation Area Strategy about increasing conservation land holdings to respond to population growth pressures and increased community demand for recreation. -There are no metrics regarding land acquisition. - The strategy does not contain any specific, measurable goals around enabling public access to inactive landholdings. - The Hanlon Creek Conservation Area plan should be revisited and activated as part of the Conservation Area Strategy.
Hopefully no conservation lands needs to be sold for development
natural lands and accessible to the public lands are both important. areas that have bike and walking paths, river and lake access are super important. but so are lands that are rewilded and kept intact with wildlife corridors and watershed integrity are also very important
Giant Hogweed hazard is not identified in the plan. This must be considered as it affects the ecology, recreation, tourism, and public safety. Detailed comments on the plan will be sent by email.
Once land is protected by the GRCA , it should never be allowed to be sold for development. Humans, plants and animals need watersheds and lands to be protected and kept natural and nourished
I found the nuances of the previous question a bit difficult to parse out. I am concerned that GRCA lands stay as conservation land and not be sold for development. We need as much green space and nature habitat as we can conserve with a growing human population.
Enhance the availability of seasonal camping to be an enjoyable extended stay experience.
do not sell waterfowl park lands and lands adjacent to Niska Road conservation area
I strongly support the maintenance and on-going availability of the Grand River Watershed parks.
In the opinion of City staff, “Consider watershed health and resilience when making land management decisions” and “Enhance community partnerships on GRCA properties” are the most important and of equal importance.
Keep these area protected from development in perpetuity. Natural area will become more important every year that passes into the climate crisis. We must protect the watershed. Also, there is enough land inside of city limits to build housing, Everyone knows this. The rush to build multimillion dollars houses on these lands only caters to a very small market, who all ready have more than enough.
No.
Use GCRA land and water to manage droughts and floods which will increase in frequency with climate change. Enhance wetlands. Develop stricter guidelines to reduce pollution in the GCRA watershed
It must be a challenge to be "in compliance" with Provincial policies when they are not on the best interests of the GRCA - and that can change at an "impulse" of Doug Ford.
I have to rank "compliance with Provincial regulations" last because the Province is not acting in the best interests of nature or the overall health of the watershed. In the best of all possible worlds, we would have thoughtful Provincial, Federal and Municipal government leadership and complying with them would be important. But not today. GRCA should do what it can to conserve the natural resources in the Grand River watershed. GRCA leadership should be creative in finding ways to do what it knows it needs to do -- in spite of provincial regulations which tell it not to worry about the entire ecosystem, to just focus on flood control and water quality. GRCA should listen, more than ever, to the scientists in its employ, and take an ecosphere approach. Do not let current provincial regulations -- focused as they are on economic development first, foremost and sometimes exclusively -- cause you to throw away the good judgement and careful environmental management you have shown in the past. And please, please, please, do not stop creating well-informed future generations. Public education programs are crucial -- like those at the Nature Centres. The annual Heritage Day programming was excellent. That is the single event that made me love GRCA -- and contribute financially to GRCA operations. I so wish you would bring it back. It was a fabulous way for people throughout the watershed to discover common cause and work together.
The grca should not be declaring any conservation lands as surplus land. These lands should be reforested, converted to meadows or other ecological uses not sold for housing. The GRCA has a bad reputation because of the limited amount and limited public activities and engagement compared to other conservation authorities such as Halton, credit valley and Toronto. There would be more support of the GRCA if you had more activities such as what is happening in Halton and Credit Valley for instance.
Re: government compliance objective: While understanding of the fact that CA's need to adhere to legislation, please do not sell yourselves and your residents short as merely a creature of the government. The GRCA is entrusted with our land stewardship. The government has consistently made cuts and harmful legislation to our environment. "Steward" is only found in the Strategy draft twice. We are counting on you - the experts, the knowledgeable - to advocate for our lands and protect them for us now and for future generations. Can this objective be expanded to include stewardship/environmental advocacy to the government? "'Engaging' with authorities" sounds like seeking direction from government on how to implement, it is a careful but impactful word choice that may not include advising. If it is meant to, this should be more clearly stated.

Do you have any additional comments related to the Conservation Areas Strategy?
You are doing an excellent job and we are happy to have you taking care of our environment.
None
Just hoping that the gates are repaired as I miss the water this year!
No
No
Give the Damascus conservation area back to the Township of Wellington North. GRCA has abandoned it while pumping money into new areas while letting Damascus go to hell. The Township would be a much better caretaker of this area and will open it for the public that pay taxes in this area and get nothing in return from the GRCA
Do a better job connecting local residents with local parks/trails. Perfect example is the Elora Quarry - locals hardly use it any more. You should open up the first week (maybe in place of one of the tv/film shoots) for locals to reconnect with their local natural environment.
The phosphorous levels between Cambridge and 6 Nations Reserve has been high and between Caledon and to Byng Island. Farms have been dumping fertilizer into the water - why hasn't this been addressed in the the plan?
no
No
n/a
Residents in the area really do not want to see any part of Laurel Creek sold off for development. I recently invested my money into purchasing a home in this area with the notion that the conservation area would be an integral part of this neighborhood, as well as for mental & physical well-being. I would NOT have made that investment had I known that there was a chance that one day it wouldn't be there.
n/a
no
1. A map of all dams and weirs on the river system is needed (even for those not managed by GRCA). Kayakers resort to using google maps to figure it out - which isn't reliable. 2. Please make your river data charts online easier to understand for the average person. Thx!
no
Green space is vital for the long-term health and sustainability of the community. Land sales should not come from conservation areas, rather the government should do more to buy land to be protected by conservation authorities.
No
1. More conservation efforts and mention of efforts in strategy to protect wildlife within conservation areas. 2. Too many multiple uniformed people riding around in vehicles and not actually walking the trails or out on the water. (this is the first year I have felt less safe - people related not environment related) 3. Parks losing revenue with people getting around loophole about number of people in a car for a certain price. Said people leaving park and coming back in with more people but not paying since they paid the first time coming into a park. Said people doing this multiple times in one day. Season pass holders feel they are subsidizing non-payers! 4. Stop over manicuring nature! More effort required on removal of recent invasive species.
I would like to know how you consider what properties are open year round and which are closed. I cross country ski in Elora and would love to have access in the winter. why do I have to pay for a select time to visit the Quarry when I hold a membership. I should be entitled to entry if I have a membership without additional costs and booking entry. Lastly, how much revenue is generated every time some production company uses the properties and closes it to both members and the general public. I don't see this as enhancing community partnership.
Don't trust the province
Guelph Lake Forest has a lot of barbed wire in many spots!!!
No
Don't sell off the Niska lands
Elora Gorge Park needs an outdoor swimming pool installed where the old leech pond used to be. Charge for swimming lessons and fit classes and it would be great to have a safe pedestrian/bike trail from Centre Wellington to the park.
no
Just a general comment that I am very pleased to live in a region where we are protecting land, water in a thoughtful manner. The GRCA has done a great job historically, and I hope protection can continue in spite of political or fiscal pressures.
Convey surplus to municipalities for use as public parks
Nature study should be encouraged, with check lists for birds and plants available
I really hope the GRCA will consider the impact of destroying the Kortright Waterfowl Park with a new subdivision will have. It's an amazing place with so much wildlife and plants - such a rarity to have a piece of paradise like this in a city.
No
The Arboretum area in Fergus is owned by GRCA, but "maintained" by Centre Wellington, to my knowledge. The town plan provides for a bridge to be built across the Grand at the end of Beatty line, destroying the natural ecosystem adjacent, and greatly affecting the river itself. I am strongly opposed.
We need to strengthen partnership with Elora Cataract Trailway Association Board of Directors . The Trailway is a major contributor to the health and well being of the communities it serves. Also , there needs to be a link for pedestrian traffic coming from Elora to the Elora Gorge Park that is inviting , not the barbed wire fencing that precludes traffic.

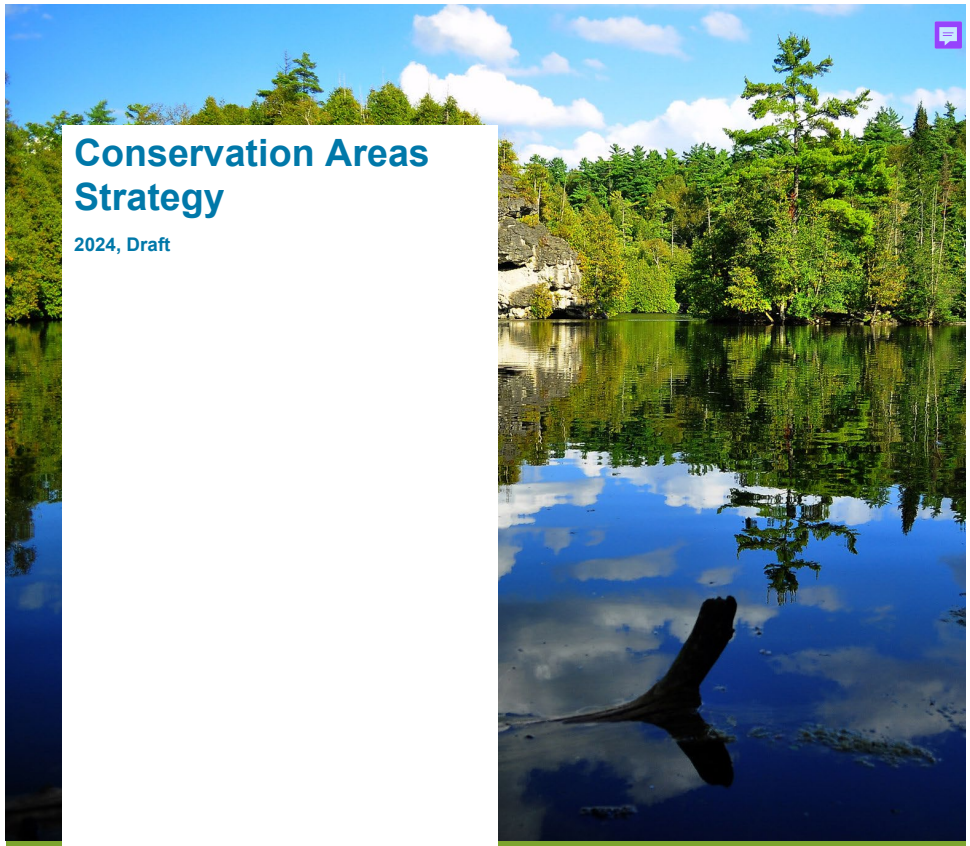
Do you have any additional comments related to the Conservation Areas Strategy?
It would be nice to see more action against invasive species. Invasive Phragmites is our worst invasive species right now and it is present on GRCA lands among other invasive species that should be treated. Pioneer populations are much easier and less expensive to control which really pushes for action to happen before these species take hold of these areas. It would also tie into the watershed approach to control and remove invasive species such as phragmites.
Do not sell any GRCA land.
I've noticed that the GRCA does a particularly bad job at advertising or hosting events in its space. It could absolutely make money on its own without the need to sell to developers. I am happy to give ideas as I follow many other conservation areas and marketing and would love to see the grca areas become treasured for everyone.
Make sure on the ground you have more foresters and more communication on basic things like windbreaks, riparian buffers . Not just on line but in paper publications where farmers and land owners read.
Two things that would be in the public interest. 1. I think there are opportunities for the GRCA to be able to do more with less. I would love to see the role of a Community Outreach and Volunteer Coordinator re-established. Many Conservation Authorities are actively involved in the Communities they serve. 2. The GRCA owns and manages a lot of land which requires resources and costs. I would recommend that the strategy consider working with Land Trusts in managing, partnering, and/or disposing of lands. Land Trusts, particularly those under the Ontario Land Trust Alliance (OLTA) have a greater ability to protect and manage sensitive lands than a Conservation Authority. They also have an ability to secure large donations or grants that would not be available to Conservation Authorities.
Public investment in GRCA lands needs to be recognized, especially in relation to the Niska lands. Without having a full EA of the so-called surplus lands at Niska, we don't even know if the lands are developable. Any Conservation Area Strategy must include proper environmental assessments to ensure that any land deemed surplus are actually developable. Niska lands are unique, include water recharge and the citizens of Guelph deserve continued access, especially since the Guelph Hiking Trail Club has funded and installed a connecting bridge from Crane Park.
Strategic priority: "managing GRCA landholdings in compliance with relevant Provincial regulations, policies and guidelines" potentially means fulfilling Doug Ford's agenda of serving up Conservation land to his developer friends. The GRCA Board needs to think very carefully about the core principles of Conservation Authorities and their long-term responsibility to the public interest. None of the Niska landholdings should be sold. The agricultural fields are candidates for picnic areas, sports fields, or restoration, as suggested by the Mississaugas of the Credit First Nation and the Six Nations. The Conservation Area Strategy is not transparent and clear about the fact that the GRCA is selling land in order to finance capital projects. This is not "fiscal responsibility", it is a betrayal of the mandate of the GRCA. It is certainly not a sustainable method of funding capital projects. Urban conservation land only represents 9.% of GRCA land holdings. Given the importance of contact with nature and recreational opportunities for Ontarians, it should not be sold.
Stand up to the province. The need for your water and natural heritage management will be here long after this current government is gone.
No
The GRCA needs to develop more democratic processes and include the voice of Indigenous peoples. The conservation lands belong to all of us. They are our legacy for future generations. Please do not sell them off to developers for short term gain. Please provide more opportunities for local people to feed into GRCA processes.
no
How is it that you are called a "Conservation Area" when you are selling off conservation land. The land should be conserved in perpetuity. I am concerned about the ongoing sale of conservation land. I have watched the GRCA whittle away former Laurel Creek Conservation land holdings in Waterloo where I live. I am opposed to the sale of the Niska/Kortright lands in Guelph where some of my children and grandchildren live.
See answer to question 8.
We need to PRESERVE conservation land, not sell it off and destroy parts of it for development. The fact that you're even considering this is disgusting.
Please sell the 20 acres of Kortright Water Fowl property. Its agricultural table land, not river valley, and as its within the City of Guelph it should be used as urban land for development.
Keep kortright undeveloped
Save as much land as possible yiu a regain biodiversity once it's gone
GRCA is a rich and valuable treasure for all Ontarians.
Protect nature
Please DO NOT take any more land from wildlife!!
Please do not develop Niska.
No
Not at this time
Don't sell conservation areas for development. Conserve them.
GRCA land should not be sold or portioned off but protected and increased
Sorry for the incredibly damaging policies foisted upon the GRCA. I'm sorry.
Please honour and do NOT sell the Niska/Kortright lands in Guelph, while honouring the core mandate of "Connecting people to the environment through outdoor experiences."
Niska Rd is already overused and ignored by law enforcement (weight restrictions and speed limits are flagrantly defied with impunity, 24 hours a day). Nevertheless, residents enjoy the trails and the opportunity they afford to connect with nature. Selling the Niska Lands for development would be irresponsible and catastrophic to the local watershed environment.
Public lands should not be sold, other than to other public entities if there are opportunities for partnerships.
DO NOT sell the Niska/Kortright lands in Guelph, and honour the core mandate of "Connecting people to the environment through outdoor experiences." Selling off the Niska/Kortright lands would be a betrayal of that core mandate

Do you have any additional comments related to the Conservation Areas Strategy?
N/A
DO NOT sell off current property holdings to provide land for housing developments . As a global green leader, Guelph needs to make a clear stand in protecting our conservation /sensitive land from the pressure of federal government to build new homes. Once gone, the land is gone for good.
I am asking you NOT to sell the Niska/Kortright lands in Guelph,
NA
I am in favour of PRESERVING OUR CONSERVATION AREAS AND NOT ALLOWING HOUSING OR OTHER NON-NATURAL DEVELOPMENT on these sites.
My grandfather was mayor of Brantford in the 30's and was among the leaders that established the GRCA. In school, there were annual field trips to Kortright. Environmental legacy is important. We need to take even more care for even more people. Let your grandkids take pride that you protected that land.
Don't sell our parks! Animals have limited areas they call home - where do they go once we tear up their land for OUR greed? These parks are here for a reason. If money is the root cause, put up QR codes that ask for donations or small parking fees of $2. I would gladly pay $2 to use Snyders or Kortright/Niska if that meant the land was to remain the same.
We need land to build homes - the Kortright/Niska property needs to be sold so it can be developed for homes. The NIMBY is expected but people need to live somewhere which is more important than land sitting and not being used to it's full potential.
We live close to the former Kortright Waterfowl Park. While it is now a restricted access space, it is still an incredible resource that has been a form of parkland in the past and could be again in the future. We are facing a looming shortage of parkland. This will impact everyone in the city as a growing population crowds into finite recreational spaces. City of Guelph tax dollars covered 30 per cent to 40 per cent of the GRCA purchase of the former Kortright Waterfowl Park in 1977. This parcel of land has a unique and important history in our community, and it holds great significance for our family and our neighbours. That is why the city put in money and trusted GRCA to preserve it. While I understand that GRCA is working in a very difficult financial situation, cashing out conservation lands to help the provincial government fund infrastructure budgets is a completely unsustainable way of responding to those challenges. I think selling off this land would be a betrayal of the GRCA's mandate.
Please protect Smith Property from any development
Land should be protected, not sold.
The Niksa conservation area will only grow in use and importance as Guelph expands. Please do not sell this.
If the strategy is just pandering to current governments' undermining of conservation authorities and lands, then it is not in the best interest of residents. Urban lands are especially valuable since they are easiest for low socioeconomic status residents to access and should not be sold!
- Strategic priority: "managing GRCA landholdings in compliance with relevant Provincial regulations, policies and guidelines" potentially means fulfilling Doug Ford's agenda of serving up Conservation land to his developer friends. The GRCA Board needs to think very carefully about the core principles of Conservation Authorities and their long-term responsibility to the public interest. - None of the Niska landholdings should be sold. The agricultural fields are candidates for picnic areas, sports fields, or restoration, as suggested by the Mississaugas of the Credit First Nation and the Six Nations. - The Conservation Area Strategy is not transparent and clear about the fact that the GRCA is selling land in order to finance capital projects. This is not "fiscal responsibility", it is a betrayal of the mandate of the GRCA. It is certainly not a sustainable method of funding capital projects. - Urban conservation land only represents 9.% of GRCA land holdings. Given the importance of contact with nature and recreational opportunities for Ontarians, it should not be sold. - Financial contributions of municipal tax dollars have not been mentioned in the "History of Land Acquisition."
Please do NOT sell the Niska/Kortright lands in Guelph, and honour the core mandate of "Connecting people to the environment through outdoor experiences.
Strategic priority: "managing GRCA landholdings in compliance with relevant Provincial regulations, policies and guidelines" potentially means fulfilling Doug Ford's agenda of serving up Conservation land to his developer friends. The GRCA Board needs to think very carefully about the core principles of Conservation Authorities and their long-term responsibility to the public interest. This is very important to me. None of the Niska landholdings should be sold. The agricultural fields are candidates for picnic areas, sports fields, or restoration, as suggested by the Mississaugas of the Credit First Nation and the Six Nations. The Conservation Area Strategy is not transparent and clear about the fact that the GRCA is selling land in order to finance capital projects. This is not "fiscal responsibility", it is a betrayal of the mandate of the GRCA. It is certainly not a sustainable method of funding capital projects. Urban conservation land only represents 9.% of GRCA land holdings. Given the importance of contact with nature and recreational opportunities for Ontarians, it should not be sold.
The mission is so important. Education to communities might be needed to encourage support. Please don’t grow weary of the stewardship of this vital work. Thank you
Financial contributions of municipal tax dollars have not been mentioned in the "history of land acquisition"
Connecting people to the environment through outdoor experiences
Niska lands should be maintained. I often took children there to experience ducks, geese etc. in their natural habitat which was nature in its essence. GRCA should NOT be selling off its land, especially when we know that the Mississaugas of the Six Nations really own all the areas on either side of the river. The Niska lands should be a low developed park with picnic tables etc. to encourage anyone to spend time in this environment. Medicine now advocates for more time in nature for people to improve/maintain their health.
The Niska Kortright land was acquired so it would be protected from development and enable Guelph residents to enjoy this land. Guelph is growing and these types of spaces are sacred. They need to be protected as was the original mandate by GRCA. There is a large environmental impact to selling this land off. Selling this off for development contradicts the mandates of GRCA.
Please do not sell off GRCA holdings for development.
No
No

Do you have any additional comments related to the Conservation Areas Strategy?
The Conservation Area Strategy is not transparent and clear about the fact that the GRCA is selling land in order to finance capital projects. This is not "fiscal responsibility", it is a betrayal of the mandate of the GRCA. It is certainly not a sustainable method of funding capital projects.
No
Do NOT sell off any lands! My children are coming of an age that we will be carving out fond outdoor memories in all of the areas currently under your protection. Tell whoever is cutting your funding and telling you to sell where to go.
"Managing GRCA landholdings in compliance with relevant Provincial regulations, policies and guidelines" basically means achieving Doug Ford's model of handing over protected land to his developer buddies. The GRCA Board should consider their core principles and responsibility to the public.
Keep GRCA lands out of the hands of builders.
Areas deemed for conservation ought to remain as such. They are vital areas to human wellbeing and wildlife habitat. Selling these lands for development is not their purpose and it violates public trust to do so.
Conservation lands should not be sold.
No
Look for opportunities to engage with Parks Canada and communities regarding the National Urban Park program.
Thank you for your time
Do not sell Conservation Lands!!!!!
It is important that GRCA keep community lands like the Niska/Kortright conservation land accessible to the public. There is sufficient land for housing within the City of Guelph boundaries, and it is a betrayal to those before us who helped get this land for public access and it is an obligation to future generations that we not squander what we have now by selling it for development.
It is important for GRCA to ensure that the land is used in a way that maintains or increases biodiversity and greenspace.
Don’t sell the Niska Lands
I am totally against giving up conservation land, and I am in favour of getting more! I am so depressed about this, and I am willing to fight it. We need to think of our future and what we want to leave to those that come after us, so they can be proud of the decisions made now. If people in the past had not thought about us, what would we have? Currently we have beauty and habitat, and I am so thankful for that. Housing should not replace our wonderful conservation lands. I also feel it is disgusting that the gov't is making the CA do this and trying to undo all of the hard work.
No
Putting any houses there would be a sin and Mr Mack would never have wanted this . It has had so many dignitaries famous people visit the park. This would be an absolute travesty to destroy this land. A user from 1967 to present and family had used it before Kara Beitz Southend resident from childhood to now!
I am fearful financial pressures may fuel irreversible loss of important environment conservation.
Do not sell properties. Increase costs if money is needed.
Grca land should never be sold
Would be really nice to have the Kortright waterfowl lands reopened to the public. Educational talks on the watershed would be good. It was a wonderful place to get back to nature. I have missed this wonderful piece of nature since it closed.
Conserve the land
Don’t cave to the Provinces ever changing demands and policy changes that pivot constantly based upon the leaders changing whims.
I am concerned about the phrasing of the goals based on following provincial rules, as these have not shown to be in the best interest of our communities and environmental sustainability down the line (as well as focusing on fiscal benefits when we may need to prioritize investing in better futures at this time (i.e. sustainability and environment vs cutting corners/developing for short term gain)
Again, please do not sell conservation lands to developers. Beautiful places to walk and enjoy nature are already dwindling.
GRCA should give much weight to local residents and Guelph city development objectives in deciding on the Niska lands' future.
I am sorry that the provincial government is not supporting or acknowledging the true importance of green space to the communities that thrive through having access.
Don't turn our cities into parkless desert islands. Don't cave to political pressure and sell off lands that are protected for a reason.
DO NOT SELL lands for housing development.
SELL the Niska Kortright parcel.
Strategic priority: "managing GRCA landholdings in compliance with relevant Provincial regulations, policies and guidelines" potentially means fulfilling Doug Ford's agenda of serving up Conservation land to his developer friends. The GRCA Board needs to think very carefully about the core principles of Conservation Authorities and their long-term responsibility to the public interest. - None of the Niska landholdings should be sold. The agricultural fields are candidates for picnic areas, sports fields, or restoration, as suggested by the Mississaugas of the Credit First Nation and the Six Nations. - The Conservation Area Strategy is not transparent and clear about the fact that the GRCA is selling land in order to finance capital projects. This is not "fiscal responsibility", it is a betrayal of the mandate of the GRCA. It is certainly not a sustainable method of funding capital projects. - Urban conservation land only represents 9.% of GRCA land holdings. Given the importance of contact with nature and recreational opportunities for Ontarians, it should not be sold. - Financial contributions of municipal tax dollars have not been mentioned in the "History of Land Acquisition."
Please don’t sell Niska/Kortright Lands

Do you have any additional comments related to the Conservation Areas Strategy?
Yes we need to fight against a misguided province. They conservation lands were visionary, we need to keep them and expand.
Keep kortright water fowl area for public access. I think not even people even know this exists. Little Tract and Fletcher creek are often very busy and they are further away for south Guelph residents.
Do not sell off the land by the Old Bird Sanctuary.....it's so full of wildlife, plants, animals, and creates a calming zone to the forest and waters that house even more wildlife.
selling land to builders is a bad idea
Kortright Waterfowl Park is a jewel that should be polished and kept.
no
No
Some Areas need to be maintained with the benefit of wildlife as the goal. Recreation for humans should not be allowed in such areas.
Ecologically develop conservation areas to mitigate the adverse effects of climate change.
They are an important part of our community serving more than just an aesthetic purpose and I'd like to understand the environmental impacts of developing areas of them.
Selling off land should be a last resort, I think. Thank you.
Decolonizing your objectives and strategies is vital - to shift towards protecting and stewarding long-term health, biodiversity, vitality, and respecting inherent rights/sovereignty of lands and waters, for the long term health of all life, all generations (not just people's use, profits, or 'entertainment'!). Align with Indigenous land-based leadership, indigenous-led stewardship and strategies. Focus on strategies that promote: - 'fossil free', and climate change mitigation and adaptation strategies, - biodiversity, resilience, reforesting/rewilding, - less or no growth, less/no human development/'urbanization'/'human expansion', - simplicity, zero waste, and energy conservation. - land-based learning & restoring (including volunteer work on the land for cleanups, restoration, plantings), to steward long-term health, resilience and bioversity. Focus less on imbalanced political 'demands' and the use/diversion/'entertainment' of settlers on conservation lands, and work more as people to restore lands and waters, everywhere. More advocacy for positive change that puts Earth and well-being of all life first, and NOT profit, development and 'human recreation'. Also, every time I visit the Guelph Lake conservation I see a lot of garbage collected from visitors and lots of irresponsible littering - where is the follow-up and accountability for visitors by park staff? (should be part of going around to tour, and speak with, and teach visitors to ensure respectful behaviours and good practices. Actively work to evolve 'modern society' thinking and behaviours, so people evolve from treating the Earth like a 'garbage dump' with entitled dominance, and encourage ways of visiting that promote land-based restoration and long-term health, and promote attitudes of care, respect and humility with the Earth and all life. This should be normal! :)
Keep public use to a trail to preserve the land for wildlife
Selling lands is wrong, since the whole concept of conservation land is to conserve it. The sake of lands to developers is cheap and a cash grab. Don't betray the planet and those who dared to stand up to capitalism before each of you considered selling the land.
Survive Provincial political likes and dislikes. Serve the community first; see it, and cultivate it as an ACTIVE, engaged partner, to ward off the political vagaries of Provincial deal making and short-term political compromises.
•Strategic priority: "managing GRCA landholdings in compliance with relevant Provincial regulations, policies and guidelines" potentially means fulfilling Doug Ford's agenda of serving up Conservation land to his developer friends. The GRCA Board needs to think very carefully about the core principles of Conservation Authorities and their long-term responsibility to the public interest. •None of the Niska landholdings should be sold. The agricultural fields are candidates for picnic areas, sports fields, or restoration, as suggested by the Mississaugas of the Credit First Nation and the Six Nations. •The Conservation Area Strategy is not transparent and clear about the fact that the GRCA is selling land in order to finance capital projects. This is not "fiscal responsibility", it is a betrayal of the mandate of the GRCA. It is certainly not a sustainable method of funding capital projects. •Urban conservation land only represents 9.% of GRCA land holdings. Given the importance of contact with nature and recreational opportunities for Ontarians, it should not be sold. •Financial contributions of municipal tax dollars have not been mentioned in the "History of Land Acquisition."
I do not support selling conservation lands in order to build housing. This is so backwards. We need to be setting aside more conservation lands, not infilling wetlands. This is so disappointing.
Provide access to Puslinch lake. Now, it is essentially a private lake for use only by those with money to buy expensive homes on its shore. Access should be available to everyone
As population intensifies and densities it is critical to maintain all GRCA landholdings in public domain! Fundraise if you have to.
Expand conservation areas to address biodiversity loss and other impacts of unchecked urban growth
Don't sell land
Thank you for inviting input on this important topic.

Do you have any additional comments related to the Conservation Areas Strategy?
"managing GRCA landholdings in compliance with relevant Provincial regulations, policies and guidelines" potentially means fulfilling Doug Ford's agenda of opening up Conservation land to developers. Please, keep in mind the core principles of Conservation Authorities and their long-term responsibility to watershed management in the public interest. Please do not sell off the Niska landholdings. The land is suitable for recreation, or restoration, as suggested by the Mississaugas of the Credit First Nation and the Six Nations. Urban conservation land only represents 9.% of GRCA land holdings. Given the importance of wetlands, flood plains, habitat loss, biodiversity, species at risk etc and contact with nature and recreational opportunities for Ontarians, it should be increased not decreased. Financial contributions of municipal tax dollars have not been mentioned in the "History of Land Acquisition." The Conservation Area Strategy is potentially selling land in order to finance capital projects. This is not a sustainable way to fund capital projects.
I strongly object to selling of the lands in Guelph on Niska Rd. The acquisition of these properties was partially funded by the taxpayers of Guelph and they have a right not to have these sold off to commercial development.
- None of the Niska landholdings should be sold. The agricultural fields are candidates for picnic areas, sports fields, or restoration, as suggested by the Mississaugas of the Credit First Nation and the Six Nations. - Urban conservation land represents only 9.% of GRCA land holdings. Given the importance of contact with nature and recreational opportunities for Ontarians, it should not be sold. - The strategic priority: "managing GRCA landholdings in compliance with relevant Provincial regulations, policies and guidelines" potentially means fulfilling Doug Ford's agenda of serving up Conservation land to his developer friends. The GRCA Board needs to think very carefully about the core principles of Conservation Authorities and their long-term responsibility to the public interest.
Conservation of the balance of the ecosystem must include an acknowledgement of giant hogweed invasion and its detrimental effects.
Keep conserving our watershed!
do not sell waterfowl park lands and lands adjacent to Niska Road conservation area. keep the original committment to maintain lands as public parkland area. making money is NOT the priority.
The health of the environment must be top of mind.
The City of Guelph is very supportive of the draft Conservation Areas Strategy and notes the alignment of the draft strategy with the City's Strategic Plan, Official Plan and Natural Heritage Action Plan. Many of the draft strategy's listed "Outcomes", "Future Direction" and "Actions" align with: • the "Environment" theme of Guelph's Strategic Plan, • the "watershed planning to manage growth and infrastructure", "natural heritage and biodiversity conservation", "resilience and restoration planning", and "fostering community support, raising awareness and engagement" actions identified in the City's Natural Heritage Action Plan, and • the strategic goals, objectives and policies of Guelph's Official Plan.
What will it take to make our environment a priority? All these lands need to be protected for everyone, not permanently destroyed by the wealthy few. We are rushing towards catastrophe, let's take the time to consider the implications of every decision to tear these lands down. Please
Do not sell off for development any of the Niska Lands. Guelph has plenty of available properties for development and needs to retain its open areas to match the future population growth. Guelph also has to be careful about use of its ground water resource with respect to population growth.
Do not sell the Niska/Kortright lands in Guelph
The strategy should be written in a way that anticipates better provincial government leadership. Be creative!
I don't think your properties are being managed very well there is limited removal of invasive species for example. There is virtually no policing of illegal activities on areas such as Preservation Park and the Niska lands in Ontario. There should be more interpretive signage so people understand the reason why dogs are not allowed off leash and why people should stay on the trails in order to protect the forest. Many plant species have disappeared such as wild leaks because of over foraging on grca lands. Why isn't the grca conducting more bio blitz's on their property so they know what species are there in order to protect them. As cities in the watershed grow more and more destruction thru over use will occur without better education and stewardship.
The mini-golf in Rockwood is one of our favourite activities. School field trips to Guelph Lake have significant impact on youth's environmental values. Please note we visit more frequently in the warmer months but probably less than 12 times per year total. We also visit Halton conservation areas.



Summary of Comments on Appendix C_CA-Strategy-Final-Draft_-2024 Comments.pdf

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Author: scout Subject: Sticky Note Date: 2024-10-01 12:46:46 PM

Overall comments:

1) GRCA is uniquely positioned to provide guidance and effect significant control of giant hogweed in the Grand River watershed. It is saddening to see that a hazard of this magnitude and escalating condition did not even receive an acknowledgment in the draft strategy. Other CAs in Ontario have been mitigating giant hogweed for years but GRCA still has not accepted the fact that the GRCA properties and lands within their jurisdiction are increasingly invaded by giant hogweed.

2) Under the category of communications - GRCA could use their established network of connections with landowners and land managers to: a) proactively provide information tools and best practice guidance to the landowners in the watershed regarding mitigating the giant hogweed. b) Lobby the municipal governments within the watershed for funding increases to allow the municipal land managers sufficient moneys to control the infestations within their boundaries. c) lobby the provincial government for increased attention to this province wide riparian invasion, d) lobby the provincial government for funding to private landowners that have been impacted by giant hogweed invasions brought to them by poorly managed (upstream) populations on Provincial and GRCA properties.

This strategy is of course focused on the Grand River and is driven by a provincial mandate - but it would serve the public better if it took a wider perspective of viewing the health of the watershed in terms of humanity as a part of the ecosystem.

The flavour of the Draft is of an organization justifying its existence as compared to an organization attempting to lead and govern a geographic area or ecosystem.

The definition of CONSERVATION gets a bit confused herein - seems that a more fitting title would be 'Flood management and job security strategy'.

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Table of Contents

Introduction

The Grand River Conservation Authority (GRCA) manages water and other natural resources on behalf of 38 municipalities and approximately one million residents of the Grand River watershed. The GRCA is a partnership of watershed municipalities and provides an avenue to work together, addressing environmental issues and opportunities that serve to benefit the entire Grand River watershed. Through programs that balance human, environmental and economic needs, the GRCA works collaboratively with all levels of government, various organizations, and members of the community to ensure the conservation, restoration and responsible management of water, land, and natural habitats in the watershed.

Vision

A healthy watershed where we live, work, play and prosper in balance with the natural environment.

Mission

To work with local communities to reduce flood damage, provide access to outdoor spaces, share information about the natural environment, and make the watershed more resilient to climate change.

Strategic Priorities

1. Protect life and minimize property damage from flooding and erosion.
2. Improve the health of the Grand River watershed.
3. Connect people to the environment through outdoor experiences.
4. Manage landholdings in a responsible and sustainable way.
5. Compliance and implementation of the amendments to the Conservation Authorities Act and new regulations.
6. Enhance Indigenous awareness, understanding and relationships.

Purpose of the Conservation Areas Strategy

Under the Conservation Authorities Act, *Ontario Regulation 686/21: Mandatory Programs and Services*, each Conservation Authority in Ontario is required to prepare a Conservation Areas Strategy (Strategy) and Land Inventory (Inventory). The purpose of the Conservation Areas Strategy is to satisfy provincial regulatory requirements and provide an integrated, high-level framework that helps guide and inform future decision-making on all GRCA-owned and controlled lands. For the purposes of this Strategy, this includes lands categorized as conservation areas, conservation lands, controlled/limited access lands and lands used for water management. The Land Inventory provides information on each GRCA property and will support implementation of the Strategy and management of GRCA lands.

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Author: scout Subject: Highlight Date: 2024-10-01 12:47:49 PM
While this statement may be generally true - it has not been my experience. Restoring natural habitats, balancing human and environmental and economic needs within the watershed MUST include a recognition of the invasion of giant hogweed and a plan to thwart this invasion before the cost of remediation and the cost to the public health and the cost of loss-of-tourism becomes unmanageable. Presently the invasion is escalating at about 500% per year.

Author: scout Subject: Highlight Date: 2024-09-06 12:45:35 PM
Access to outdoor - natural - spaces is decreasing due to the increasing number of populations of giant hogweed. This population density is now about 1 per 100 meters in some areas near kitchener and is approaching that in Brant County

Author: scout Subject: Highlight Date: 2024-10-01 12:49:03 PM
Managing landholdings also requires compliance to the Invasive Species Act which requires the removal of giant hogweed. Several of GRCA properties have giant hogweed populations. Public spaces are dealt with well by GRCA but the natural area land holdings are seldom monitored and are presently infested and are aiding in seeding the river each spring.

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This Strategy will provide steps for the continued sustainable management of landholdings while promoting meaningful community connections with the outdoors. It identifies current challenges and key actions to implement over the next five years. While developing the Strategy, the GRCA considered current land uses, program effectiveness, regulatory requirements, and drew upon existing GRCA plans and strategies.

This Strategy was developed in collaboration with staff across multiple departments, Conservation Ontario, staff from adjacent conservation authorities, and in consultation with watershed residents, external interest holders, Mississaugas of the Credit First Nation and Six Nations of the Grand River band councils.

The Grand River Watershed

The Grand River watershed is the largest watershed in southern Ontario, comprising of approximately 6,800 km^2 of land and water. The heart of the watershed, the Grand River, begins as a small stream in the highlands of Dufferin County and travels approximately 310 km south until it drains into Lake Erie at Port Maitland. There are 11 geographically distinct sub-watersheds, and four major tributaries including the Conestogo, Nith, Speed and Eramosa Rivers.

The Grand River has a rich cultural history and deep ties to Indigenous traditions. Prior to settlement, Indigenous people relied on the river for subsistence including transportation, water, and food sources. European settlement began in the 1700s, with communities congregating along the river as it provided a source of water and power for mills. This led to the development of local industries and economic prosperity. Agricultural intensification, population growth, and industrial expansion altered the landscape and resulted in deforestation, draining of wetlands, and habitat loss and fragmentation.

Today, the watershed consists of 38 municipalities, two First Nations reserves, and is home to approximately one million residents, mostly residing in urban cities, towns, and villages. A majority of the watershed remains a rural landscape with intensive agricultural practices. The watershed remains a highly diverse and interconnected system and continues to be heavily influenced by population growth, changes to land cover and resource use, climate change and other stressors that affect the landscape.

Additional information on Grand River watershed conditions and issues can be found in the Water Management Plan (2014), the State of Water Resources (2020), the Watershed-based Resource Management Strategy (2024), and additional resources are located on the GRCA's website: www.grandriver.ca.

A Canadian Heritage River

The Canadian Heritage River System was established in 1984 by the federal, provincial and territorial governments. The goal is to conserve and protect the best examples of

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Author: scout Subject: Highlight Date: 2024-09-06 12:50:14 PM
This disignation is on the cusp of being tainted by the escalating hazards to humans reducing the safety of these recreational activities.

Canadian river heritage, to give them national recognition and to encourage the public to enjoy and appreciate them.

The Grand River and its major tributaries - the Conestogo, Eramosa, Nith and Speed rivers - were designated Canadian Heritage Rivers in 1994. The designation recognizes the outstanding Indigenous and settler cultural heritage values and excellent recreational opportunities along the rivers. The designation carries no regulatory or legal authority or restrictions.

The GRCA's involvement in celebrating heritage within the Grand River watershed is two-fold:

- As custodian of the Canadian Heritage River designation, the GRCA reports to the Canadian Heritage River Secretariat on the status of the Grand River.
- As a property owner, the GRCA provides extensive recreational opportunities on Conservation Areas and Conservation Lands, and some properties are home to cultural heritage features.

Some examples of cultural heritage features on properties owned by the GRCA include:

- The Lake Erie & Northern Railway Line once functioned as an electrical trolley line extending from Cambridge to Lake Erie. It carried passengers from 1917 until 1955, and in 1991 was purchased by the GRCA. In 1994 it opened as the Cambridge to Paris Rail trail and is one of the first abandoned rail lines in Ontario to be converted into recreational trail use.
- The Cambridge Living Levee was constructed for flood control following the large flood event in 1974. It is located on both sides of the banks of the Grand River and is an excellent example of human adaptation to flooding hazards. It has also helped to preserve mills, historic structures and maintain parks, scenery, and recreational opportunities.
- The Bridgeport Dike project commenced following the flood created by Hurricane Hazel in 1954. Throughout 1955-1959, the former Grand Valley Conservation Authority created a 1.5 km long dike to protect surrounding residential, commercial, industrial and recreational lands. This also included channel dredging and placement of gabion groynes.

GRCA Landholdings

History of Land Acquisition

Throughout the mid 1930s the Grand River Conservation Commission was formed to assist in resolving issues from increased industrialization including flooding, drought, water pollution, and other contributing factors to which the Grand River was susceptible. The Commission began identifying and acquiring lands suitable for reservoir development that would serve multiple purposes including flood control, water supply and water quality. The first reservoir constructed was the Shand Dam in 1942, which

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created the Belwood Lake reservoir. The construction of additional dams such as Luther Dam and Conestogo Dam followed.

In 1948 a second watershed management agency was formed called the Grand Valley Conservation Authority which aimed to acquire lands to help conserve and restore natural environments and sensitive ecosystems from the impacts of development, urbanization, agricultural intensification and other stressors. Acquisition efforts were focused on priority areas or adjacent to existing properties, often located in the headwaters of the Grand River. Natural hazard lands and recreational lands were also acquired to support resource management and outdoor recreation.

In 1966 the Grand River Conservation Commission and Grand Valley Conservation Authority merged to form the now Grand River Conservation Authority. The new agency continued to build reservoirs, undertake larger-scale water management projects and develop areas for outdoor recreation.

Some of the ways GRCA-owned properties were acquired include through financial support from the provincial government, purchased from private landowners at market-value rates, expropriation, or donated from municipalities, conservation organizations, or watershed residents.

Current Landholdings

A Land Acquisition Policy was approved in 2009 and sets priorities for acquisition candidates. Recent land acquisitions have focused on protecting natural features in priority areas and increasing existing landholdings to expand habitat areas.

The GRCA owns approximately 19,900 hectares of land, which represents approximately three per cent of the total land area within the watershed. These landholdings are used for a variety of purposes that support the GRCA's programs and services, including lands for water control infrastructure, outdoor recreation, environmental education, natural areas, agricultural and commercial leases, rental properties, and lands under maintenance agreements.

The GRCA manages a diverse land portfolio throughout the Grand River watershed. Most of these lands are located in the northern regions of the watershed, or in remote rural areas. Approximately 9.5% of the GRCA's lands are within urban boundaries, including large cities such as Waterloo, Cambridge, and Brantford, as well as smaller towns like Elora, Dunville and Woolwich. Additionally, about 500 hectares of urban parkland is owned by the GRCA but maintained by municipalities through maintenance agreements.

To better understand the multifaceted purposes of the GRCA's properties and to support implementation of the Strategy, the GRCA has established a system of land use categories. These categories classify landholdings based on permitted activities, uses, designations, and the programs and services offered at each location. Four categories have been identified, however in many instances, some parcels may overlap and fall

into more than one category. The Land Inventory identifies the primary and, where applicable, secondary categories for all GRCA properties.

Water Management

Many GRCA properties house important flood management infrastructure including multi-purpose reservoirs, floodwalls, and dikes. They are essential to the GRCA's water management program and support flood control, modelling and forecasting. Approximately 19% of GRCA's landholdings are currently used for water infrastructure and flood control.

The GRCA operates seven multi-purpose dams and reservoirs, which are vital to protecting the health and safety of watershed communities within the watershed. These dams provide both flood control and low flow augmentation. Among them, the Shand, Conestogo, and Guelph Lake dams are considered the workhorses of flood control operation and are also used for hydroelectric production. The GRCA also owns 21 small dams, many of which were built in the 1800s and early 1900s. Initially constructed for transportation, waterpower and water supply, these smaller dams now hold recreational, aesthetic or historical value.

In addition to dams and reservoirs, the GRCA owns and manages land with other flood protection systems such as floodwalls and dikes. These systems play a crucial role in safeguarding low-lying areas and communities from significant floods. The GRCA owns lands that contain the Brantford, Bridgeport, Cambridge, Drayton, and New Hamburg dike systems.

Conservation Areas

The GRCA owns and operates 11 fee-for-use conservation areas and the Luther Marsh Wildlife Management Area, collectively called Grand River Conservation Areas. Many of these areas have been established around the multi-purpose reservoirs and their primary purpose is to support GRCA's flood management program. Others are located directly along the Grand River for recreational purposes only.

Grand River Conservation Areas have on-site facilities and infrastructure for public use, including washrooms, gatehouse, pavilions, picnic areas, and camping services such as water, hydro and sewage. These spaces area maintained and supported by full-time and seasonal GRCA personnel.

Grand River Conservation Areas offer both aesthetic appeal and access to water-based recreation. Visitors can experience the outdoors through a variety of recreation-based activities such as camping, biking, birding, hunting, boating, paddling, swimming, hiking, fishing, and picnicking. The GRCA's conservation areas offer Ontario's oldest and second-largest camping program. Additionally, they operate two of the Province's largest outdoor pools, located at Brant and Byng Island Conservation Areas. Six conservation areas are open year-round and offer additional winter programs such as hiking, skiing, and snowshoeing.

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Author: scout Subject: Highlight Date: 2024-09-06 12:53:49 PM
All of the listed recreational activities are jeopardized by the escalating invasion of giant hogweed

The Luther Marsh Wildlife Management Area offers a different, and more limited, range of activities and facilities. Situated in the headwaters of the Grand River watershed, Luther Marsh spans 5,900 hectares and centers around the 1,400-hectare Luther Lake, which was formed by the construction of Luther Dam in 1954. Comprising of a mix of wetlands, fields and forests, Luther Marsh provides essential habitat for a diverse range of birds, animals, plants and trees. Visitors can explore Luther Marsh through activities including hiking, birding, hunting and paddling.

The GRCA's Conservation Areas are vital parts of the recreational infrastructure in their communities, providing locations for a wide range of activities and the opportunity to connect with nature and appreciate the beauty of the Grand River watershed.

Conservation Lands

The GRCA's Conservation Lands are open to the public with no user fees and limited services. They have minimal facilities such as parking lots, trails, garbage receptables and trailhead kiosks. There are no full-time GRCA personnel onsite, however, these areas do require staff support to manage. Conservation Lands help foster an appreciation for nature by immersing visitors in a more naturalized, unstructured outdoor experience on managed trails. Visitors can enjoy passive recreational experiences such as hiking, birding, and photography. These lands also provide habitat for a wide range of plant and animal species. Conservation Lands contribute to 20% of the GRCA's overall landholdings. Popular Conservation Lands properties include Damascus, Snyder's Flats and F.W.R Dickson Wilderness Area.

Also included in these lands are approximately 75 km of GRCA-owned rail trails such as the Elora Cataract Trailway, Cambridge to Paris Trail, and Brantford to Hamilton Rail Trail which were formed on old railway corridors. These trails often integrate with a larger connected system of trailways maintained by municipalities, associations, and other organizations that link regions and communities.

Controlled or Limited Access Area

Additional GRCA properties are considered controlled or limited access use. These areas are closed to the public due to sensitive ecosystems, natural hazards, or program restrictions. However, access may be authorized through special permissions such as licenses, leases, exclusive-use maintenance agreements, and access permits. These properties do not have GRCA personnel onsite and require limited resources to maintain. Additionally, the GRCA leases property at Belwood Lake and Conestogo Lake for use as seasonal cottage lots.

Hunting is permitted on 21 GRCA properties including lands around Belwood and Conestogo Lake Conservation Areas, Luther Marsh Wildlife Management Area, and 18 other miscellaneous properties. Hunters must have a GRCA hunting permit and proof of provincial and/or federal requirements to hunt on these properties.

Some GRCA properties have natural areas that contain rare, sensitive, or otherwise significant species, communities, and ecosystem functions, all of which contribute to the

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Author: scout Subject: Highlight Date: 2024-10-01 12:50:05 PM
From a point-of-view of a citizens using the river for a recreational area - there are no indications from the river or from the trails as to what lands are GRCA and what is private, or what is sensitive, or why.

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biological diversity within the watershed. Key natural areas include forests, wetlands, grasslands, river and creek valleys, and other areas. These ecological connections make broader scale linkages of natural features that contribute to the overall watershed ecology. The GRCA undertakes multi-scale projects to conserve, maintain, and enhance natural areas for biodiversity; to improve ecological connectivity and resiliency; to protect drinking water sources; and to mitigate the impacts of flooding and erosion. Approximately 20% of GRCA's landholdings are not accessible or open to the public.

Land Dispositions

GRCA lands are privately owned and the GRCA is subject to the same legal obligations and restrictions as other private landowners. Periodic reviews of landholdings are completed to ensure that they meet the current needs of the GRCA and as a result, in some instances, some landholdings may be considered surplus. Staff then recommend to the GRCA Board of Directors that the lands be declared surplus and follow established procedures for disposition.

The disposition of land requires approval from the GRCA Board of Directors and may also require additional notification to other agencies. Ministry of Natural Resources and Forestry (MNRF) guidelines govern how some conservation authority land dispositions must take place and how the public is consulted on dispositions.

The Land Disposition Policy outlines the framework and process for disposition of GRCA lands.

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Figure 1 Map of Grand River Conservation Areas, rail trails and some Conservation Lands within the Grand River watershed.

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Author: scout Subject: Highlight Date: 2024-10-01 12:51:09 PM
Hazardous plants should be identified in this list and identified where they occur by signage along the trails & shorelines. As a minimum GRCA should be publishing the location of giant hogweed in their properties, for public viewing (or included in the periodic Watershed Conditions Report). This information is mostly available now on EDDMapS.org website as provided by the public for the public.. To Date GRCS has resisted any such interaction or reporting choosing the posture of head-buried-in-the-sand on the matter.

Author: scout Subject: Comment on Text Date: 2024-10-01 12:52:22 PM
GRCA owns a small percentage of the shoreline areas with giant hogweed and has jurisdictional influence over 100% of the lands with giant hogweed infestations.

Author: scout Subject: Sticky Note Date: 2024-09-06 1:12:26 PM
100% of the shorelines are subject to giant hogweed invasion with about 25% already impacted

GRCA Land Contribution to Watershed Health

The GRCA's land acquisition policies and priorities, along with significant ecological restoration activities, have resulted in landholdings with a high concentration of natural areas and natural hazards lands.

Conservation authorities develop watershed-based programs to protect people and property from risks associated with natural hazards, including flooding, drought, erosion, dynamic beaches and hazardous lands and sites. Hazardous lands and sites consist of wetlands, river stream valleys, shoreline areas, and unstable soils or bedrocks.

The GRCA's major dams, Shand, Luther, Conestogo and Guelph, are operated as a system to reduce flood damages and augment river flows to support municipal water supply withdrawals and improve the capacity of the Grand River to receive treated wastewater.

Flood protection systems, such as floodwalls and dikes, are located along riverbanks, such as those in Bridgeport, Brantford, Caledonia, and Cambridge, serve to reduce the impact of significant floods of similar magnitudes to Hurricane Hazel in 1954. Portions of these dikes are owned by the GRCA while others are owned by the municipalities. Additionally, smaller dikes or berms have been built on GRCA lands in communities like Drayton and New Hamburg.

Before provincial policies were implemented to regulate development on lands with natural hazards, the GRCA acquired numerous properties containing natural hazard features including floodplains, wetlands and areas susceptible to erosion and slope failure.

Out of the approximately 19,900 hectares of land owned by the GRCA, around 11,300 hectares (or 57%) are designated as natural hazard features. This includes:

- 7268 hectares (7%) of floodplain;
- 7137 hectares (36%) of wetlands;
- 500 hectares (3%) of lands with erosion hazards;
- 536 hectares (3%) of lands with steep slope hazards; and
- 429 hectares (2%) of lands prone to impacts from Lake Erie flooding.

In addition to natural hazard lands, the GRCA owns land that makes important contributions to the natural areas of the Grand River watershed. Throughout the decades, strategic land acquisition and significant ecological restoration projects have resulted in a land holding that is close to 90% covered by natural areas: 59% forest (including swamps), 17% open water, 7% marsh, and 6% grassland.

GRCA landholdings cover 3% of the watershed, however, the properties contain:

- 11% of the total watershed wetland area, including 13% of the provincially significant wetland area;

- 7% of the total watershed forest cover, including 13% of the interior forest area;
- 24% of the areas designated as Areas of Scientific and Natural Interest (ANSIs); and
- a substantial area of managed grasslands (380 hectares).

Naturalized areas are especially important in the Upper Grand subwatershed, which is the headwater area of the Grand River. In this subwatershed, GRCA-owned land contains approximately 21% of the area's forest cover and 31% of its wetland area.

GRCA-owned forests, wetlands, grasslands, reservoirs, and streams provide habitat for a wide variety of plants and animals. This includes areas of habitat for uncommon and rare species. Thirty–four GRCA properties contain recorded occurrences of rare species tracked by the provincial Natural Heritage Information Centre or listed as species at risk in Ontario. Ninety-five rare and at-risk species have been recorded on the GRCA's lands.

The GRCA's landholdings make an important contribution to the watershed's ecology and natural environment. However, it's important to acknowledge that maintaining and promoting a healthy watershed also depends on natural heritage features found on lands owned by municipalities, the Province, not-for-profit organizations, and especially on agricultural and other privately-owned lands. Many of the natural features on the GRCA's lands extend beyond property boundaries to form a connected system with natural areas owned and managed by others. A significant example of this is found at the Luther Marsh Wildlife Management Area where a portion of the landholdings are owned by the Province. The GRCA and MNRF collaborate in the management of this important natural area. The GRCA also partners with various watershed municipalities for the management of some properties, often through a formal maintenance agreement.

Challenges and Pressures

The GRCA's lands are one of its most significant assets. Management of the GRCA's lands is complicated by competing land use interests and changing social, economic and environmental conditions.

As the watershed's population grows, so does the demand for access to open, natural spaces, nature-based and river-based recreation, and outdoor experiences. The GRCA will need to continue to address increases in visitation and manage incompatible and conflicting uses on its properties (e.g., prohibited activities, encroachments).

The GRCA's properties are affected by regional and broader scale trends that influence environmental health and use of properties (e.g., habitat loss and fragmentation, invasive species, climate change and other disturbances). These trends will influence property maintenance needs and restoration potential.

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Author: scout Subject: Highlight Date: 2024-09-06 1:15:58 PM
This is interesting but the details that support it are surprisingly secret. What species are at risk and what areas tracked. How can a citizen avoid these areas or best participate in the plan to minimize the risk to these protected identities?

Author: scout Subject: Highlight Date: 2024-09-07 5:02:08 PM
Population growth and it's associated pressures on river usage also increase the interactions of humans with the hazardous plants.

The Grand River watershed is also cited as a tourism growth area by the Ontario government. This combined set of pressures moves the human health risk from giant hogweed from risk to certainty.

GRCA should be considering how to aid in public safety from giant hogweed along the entire watercourse.

The GRCA must continue to invest in the built infrastructure on its properties to ensure that infrastructure is maintained and developed at a level to achieve the organization's objectives. Continued investment in capital infrastructure and maintenance needs is essential for the long-term sustainability of programs and to enhance visitors' connections to the outdoor environment.

The water management infrastructure (e.g., dams, dikes) located on the GRCA's lands will continue to play a critical role in protecting life and minimizing property damage from flooding and erosion, and ensuring sustainable water supplies for communities, economies and ecosystems.

These challenges and pressures collectively mean that the GRCA must strategically allocate resources, prioritize program development areas, and evolve land management practices to be adaptive and flexible. By ensuring that appropriate strategies are implemented, the GRCA can effectively mitigate challenges while optimizing the use of resources.

Conservation Areas Strategy Objectives

The GRCA has established 5 key objectives to serve as a framework for the Strategy. Given the GRCA's diverse land portfolio and wide range of programs, certain lands may contribute to multiple objectives and outcomes, and other lands may only fall under one objective. Some examples of action items are included with each objective to demonstrate pathways towards fulfillment.

The objectives of the Conservation Areas Strategy are to:

1. **Manage GRCA landholdings in compliance with relevant Federal, Provincial and Municipal regulations, policies, and guidelines.**

The Conservation Authorities Act is the main governing legislation that defines the mandatory programs and services of all conservation authorities in Ontario. Additionally, GRCA-owned lands are governed by other municipal, provincial, and federal regulations that affect operational processes and land management practices.

Outcomes

- Alignment with conservation authority mandatory programs and services.
- A framework for the management of program budgets, funding structures, and financial transparency.
- Defined legal responsibilities as a private landowner to manage risk and liability.
- An enforcement framework for addressing unauthorized activities.

Future Direction

The GRCA is committed to compliance with all regulatory requirements as prescribed by governing organizations. As legislation and regulations evolve, the GRCA will work collaboratively to update processes, integrate changes into operational procedures, and

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Author: scout Subject: Comment on Text Date: 2024-09-07 5:06:44 PM
Invasive Species Act also needs to be included int he list of GRCA responsibilities - and actions developed to manage compliance.

meet identified deliverables within stated timelines. Ongoing reviews of existing procedures and practices will be undertaken to ensure compliance and identify gaps. Where needed, the GRCA will engage with provincial, municipal and federal authorities and other relevant interest holders.

2. Consider watershed health and resilience when making land management decisions.

The GRCA owns many parcels of land with water management infrastructure as well as natural heritage and hazard features that provide valuable ecosystem functions and services. Conserving and managing natural assets (e.g., forests, wetlands, riparian areas) on the GRCA's lands can provide many benefits, including water storage, pollution control, and wildlife habitat and biodiversity. Restoring and enhancing ecosystem functions can help improve resiliency to climate change.

Outcomes

- Reduction of flood and erosion damages as a result of well-maintained and operated water management infrastructure.
- Maintained and improved hydrologic functions, such as infiltration of precipitation and groundwater recharge, groundwater storage and discharge, and capture of runoff of precipitation in landscape depressions.
- Improved natural cover in riparian, forest, wetland and grassland ecosystems on suitable lands.
- Conservation of ecologically sensitive lands and improved biodiversity.
- Increased resiliency to climate change impacts and other disturbances.

Future Direction

As communities continue to grow, climate changes, and competing pressures rise on lands and waters, the GRCA's landholdings and infrastructure will continue to make important contributions to water management and natural heritage. Considering ecosystem health and watershed science in land management decisions will help ensure the GRCA's lands are resilient to changing conditions and contribute to the health of the Grand River watershed. The GRCA will:

- Develop a restoration strategy that identifies priorities for natural heritage projects and resources.
- Consider climate change and other disturbances (e.g., invasive species) when developing future land management strategies.
- Implement the Natural Hazard Infrastructure Asset Management Plan to support the operation, maintenance, repair and decommissioning of water and erosion control infrastructure.
- Review and confirm land ownership for water control structures.

Page: 14

Author: scout Subject: Highlight Date: 2024-09-01 2:04:36 PM

Author: scout Subject: Highlight Date: 2024-10-01 12:54:06 PM
Improving the natural cover should include the removal of giant hogweed (due to its negative ecological affects) and the introduction of native species and also species that deter the populations of giant hogweed - such as Birch, and pine.

Page: 15

Author: scout Subject: Highlight Date: 2024-10-01 12:54:39 PM
all of the identified activities are negatively affected by the presence of giant hogweed.

Author: scout Subject: Highlight Date: 2024-10-01 12:55:05 PM
all of the identified activities are negatively affected by the presence of giant hogweed.

Author: scout Subject: Highlight Date: 2024-10-01 12:55:20 PM
all of the identified activities are negatively affected by the presence of giant hogweed.

Actions:

- Natural Heritage Restoration Strategy
- Maintenance & Management Plans - Including 5 Year Operating Plans for Existing Grassland, Wetland, Forest Restoration Projects
- Natural Hazard Infrastructure Asset Management Plan

3. Provide sustainable outdoor recreational and educational opportunities and connections with the natural environment.

The GRCA's Conservation Area, Outdoor Environmental Education, and Conservation Land programs offer a variety of outdoor recreational and nature-based activities throughout the Grand River watershed. Visitors are encouraged to connect with the environment and foster an appreciation for nature. Programs managed through conservation areas and outdoor environmental education are fee-for-use, and programs managed through conservation lands, such as passive recreation, are provided at no cost to the user.

The Canadian Heritage River designation recognizes the countless recreational activities that the Grand River watershed offers, many of which occur on or near the GRCA's properties, such as:

- Boating - canoeing, kayaking, motorized boating
- Angling - sport fishing, ice fishing
- Water sports - swimming, water skiing, stand-up paddleboarding
- Water associated activities - hiking, hunting, camping
- Winter activities – cross country skiing, snowshoeing
- Natural heritage appreciation - wildlife viewing, scenic views
- Human heritage appreciation - sporting events, visiting historic sites

Outcomes

- Access to greenspaces for watershed residents to enjoy a wide range of natural landscapes, celebrate the ecological diversity of the watershed, and experience the benefits of being outdoors.
- Comprehensive programs that prioritize both environmental sustainability and financial resilience.
- Access to outdoor programs in a safe, welcoming, and managed setting.
- A variety of outdoor recreational opportunities that resonate with visitors on a personal level (e.g., camping, hiking, hunting, swimming).
- Recognition and celebration of the heritage values of the Grand River and the GRCA's nature-based recreation programs and properties.

This page contains no comments

Future Direction

Providing memorable outdoor experiences and cultivating visitor relationships is core to the GRCA's outdoor recreational, educational and environmental programs. With an annual rise in visitation rates and an expanding customer base, it is important that program areas adapt to match the current user demands while ensuring sustainable environmental and financial resources. To do this the GRCA will:

- Develop an Asset Management Plan for conservation areas, conservation lands and outdoor environmental education to better document current and future assets needs.
- Identify opportunities to improve accessibility and reduce potential barriers where possible.
- Understand current usership and capacity pressures and refine visitor management strategies.
- Maintain environmental health within conservation areas and lands.
- Continue to evaluate all programs identified as Category 3, per *O. Reg. 686/21*, to ensure they have sustainable funding sources; and explore alternative revenue generation opportunities.
- Maintain a holistic operating approach and encourage departmental synergies.
- Review existing plans and projects related to management plans, operations, capital projects and policies, and ensure they are current and applicable.
- Maintain the designation of the Grand River as a Canadian Heritage River.

Actions:

- Trail Standards Strategy
- Signage Strategy
- Annual and decadal reporting to the Canadian Heritage River Secretariat
- GRCA Property Asset Management Plan
- Conservation Area Standard Operating Procedures

4. Enhance community partnerships on GRCA properties.

The GRCA partners with watershed municipalities, First Nations, and environmental organizations and others to support mutual benefits on GRCA-owned lands. Shared interest among partnerships includes river-related links and trails, conservation of appropriate lands, recreational, educational and economic opportunities, and areas that support municipal and community infrastructure.

Outcomes

- Increased access to outdoor spaces fosters community connections, public knowledge, environmental awareness and stewardship.

- Opportunities for tourism and economic development.
- Synergistic, collaborative and effective relationships with organizations who share aligned goals and priorities.
- Opportunities to share resources and fulfill service gaps.
- Opportunities for environmental conservation, research, and habitat management on ecologically valuable lands.
- Enhanced relationships with First Nations and increased understanding of how to better incorporate Indigenous values in land management decisions, where applicable.

Future Direction

Partnerships are key to the ongoing success of our land management programs, and many projects and services rely on these collaborative relationships. The GRCA will:

- Maintain positive and effective relationships with current partners.
- Where feasible, identify opportunities for new partnerships with organizations that have similar interests and values.
- Identify how properties benefit watershed municipalities and influence the local economic landscape.
- Grow our relationships with Six Nations of the Grand River and Mississaugas of the Credit First Nation through engagement and collaboration.
- Maintain and improve public access to recreational opportunities, where suitable, through maintenance agreements with local municipalities.

Actions:

- Agreement Standards
- Research Permit Process
- Engagement Guidelines

5. Manage GRCA landholdings in a strategic, fiscally responsible, and sustainable way.

The 1930s to 1980s was a rapid period of land acquisition to support a variety of initiatives and projects. Throughout the years, land management priorities and programs have evolved. Depending on the needs of the Authority, acquisitions, dispositions, maintenance agreements, easements, donations, land exchanges, or land transfers may be considered. Priorities for changes to the GRCA's landholdings are outlined in the GRCA's policies for acquisition and dispositions.

Page: 17

Author: scout Subject: Highlight Date: 2024-10-01 12:55:48 PM
Tourism and economic development are threatened by the increasing invasion of giant hogweed and exasperated by the rejection of acknowledging the problem by GRCA and provincial government.

This page contains no comments

Outcomes

- Fiscally responsible land ownership that aligns with GRCA's strategic priorities and mandatory programs and services.
- Land management programs aimed to reduce risk and liability, promote public safety, and ensure appropriate use of land.
- Support for municipal infrastructure through approval of sales, maintenance agreements, easements, and land exchanges.

Future Direction

Strategic and financially responsible management decisions are essential to maintain the GRCA's land portfolio and programs. As environmental and economic factors change, the GRCA must review program areas and permitted uses on GRCA lands. The GRCA will:

- Maintain the land inventory with up-to-date property ownership information.
- Establish criteria to prioritize updating and developing land management plans.
- Ensure effective strategies are in place for managing trespassing, encroachments, encampments, and prohibited activities including public education and enforcement.
- Consider new opportunities to generate revenue and help offset operating costs and capital needs.

Actions:

- Residential Tenancy Winddown
- Conservation Area Enforcement Manual
- Conservation Lands Strategy

Programs and Services

Table 1. Identification of Category 1 "mandatory", Category 2 "municipal" and Category 3 "other" programs and services provided on GRCA owned land and respective funding sources.

Category	Program	Funding source
1	Conservation Lands Management	• Municipal Apportionment • Reserves • Self-generated program revenue
1	Watershed Management (Some monitoring stations are located on GRCA-owned lands)	• Municipal Apportionment • Self-generated program revenue • Reserves

1	Flood Forecasting & Warning (FFW) (Some dams and stream flow gauges are located on GRCA-owned lands)	• Municipal Apportionment • Provincial/ Federal / Other Municipal • Reserves
1	Water Control Structures-Flood Control, Small Dams & Ice Management (Some flood control structures are located on GRCA-owned lands)	• Municipal Apportionment • Provincial/ Federal / Other Municipal • Reserves
2	Watershed Services (Some continuous water quality stations are located on GRCA owned lands)	• Municipal MOU Apportionment • Provincial/ Federal / Other Municipal
3	Burford Tree Nursery Operations and Planting Operations	• Self-generated program revenue
3	Environmental Education	• Self-generated program revenue
3	Property Rentals	• Self-generated program revenue
3	Conservation Areas	• Self-generated program revenue • Reserves
3	Hydro Production	• Self-generated program revenue

For more information on Category 1, 2, and 3 programs, refer to GRCA's *Inventory of Programs and Services – Final Version.*

Page: 19

Author: scout Subject: Highlight Date: 2024-09-08 4:58:10 PM
Environmental education regarding giant hogweed should be moved/elevated to the catagory 1 level of Mandatory.

Looking Forward

The Grand River Watershed is a dynamic and interconnected network that supports natural environments, local communities, and economic prosperity. As stewards of the land and water, it is important that the GRCA continues to work collaboratively and innovatively with all levels of government, watershed municipalities, and other stakeholders to maintain a healthy, vibrant, and resilient watershed for future generations. Implementation of this Conservation Areas Strategy forges a cohesive pathway to meet objectives, manage landholdings sustainably, conserve the natural environment, and offer programs and services in alignment with the GRCA's mission, values, and strategic priorities.

Updates to the Strategy

The Strategy will be reviewed every five years and updated as needed. Oversight of revisions will be coordinated by the Manager of Conservation Area Operations and the Manager of Conservation Lands. Changes to the Strategy are approved by the GRCA. The most current version of the Strategy will be published on the GRCA website.

This page contains no comments

Consultation

Consultation will be conducted in a transparent, accessible, inclusive, respectful, and timely manner using consultation best practices. Prior to publication of any updates to the Strategy, the Mississaugas of the Credit First Nation and Six Nations of the Grand River band councils, as well as public interest holders, will be consulted in a manner that is appropriate at the time of the update.

October 4, 2024

Submitted online and via email to mkitchen@grandriver.ca

Megan Kitchen
Land Management Analyst
Grand River Conservation Authority
400 Clyde Road, PO Box 729
Cambridge, ON N1R 5W6

RE: City of Guelph submission on the draft Conservation Areas Strategy

Dear Ms. Kitchen,

The City of Guelph ("City") appreciates the opportunity to provide comments on the Grand River Conservation Authority (GRCA) draft Conservation Areas Strategy that has been circulated for consultation. City comments have been provided based on input received from various departments, and staff would be happy to discuss further or provide any clarification that may be warranted. The attached comments have been submitted through the online survey, and they are appended here, along with additional commentary for City-specific context, for information purposes.

Sincerely,

Krista Walkey, MCIP, RPP
General Manager, Planning and Building Services
Infrastructure, Development and Environment
City of Guelph
519-822-1260 extension 2395
TTY 519-826-9771
krista.walkey@guelph.ca

City Hall
1 Carden St
Guelph, ON
Canada
N1H 3A1

T 519-822-1260
TTY 519-826-9771

guelph.ca

Re: City of Guelph submission on GRCA draft Conservation Areas Strategy

1. What best described you? (choose all that apply)

I am a Grand River watershed resident

(The City of Guelph is one of GRCA's area municipalities)

2. Do you have a Grand River Conservation Areas Membership?

No

3. How often to you visit GRCA properties?

Daily to a couple times each week

(City staff visit GRCA properties on an as-needed basis to complete City work or to manage GRCA-owned lands per management agreements)

4. What type of GRCA properties do you visit?

Grand River Conservation Areas

(City staff also visit other GRCA-owned properties that are not officially Conservation Areas)

5. What are the three sites that you visit the most?

Preservation Park / Hanlon Creek Conservation Area

Niska Lands / Crane Park

GRCA-owned lands along Speed River at Victoria Road

6. The GRCA's Conservation Areas Strategy has identified 5 objectives to guide management of GRCA lands. To what extent do you support the objectives?

	Strongly agree	Agree	Disagree	Strongly disagree	Neutral
Manage GRCA landholdings in compliance with relevant Federal, Provincial and Municipal regulations, policies, and guidelines.	X				
Consider watershed health and resilience when making land management decisions.	X				
Provide sustainable outdoor recreational and educational opportunities and connections with the natural environment.	X				

Enhance community partnerships on GRCA properties.	X				
Manage GRCA landholdings in a strategic, fiscally responsible, and sustainable way.	X				

7. Out of the 5 objectives, what is the most important in your opinion?

Consider watershed health and resilience when making land management decisions.

Enhance community partnerships on GRCA properties.

Manage GRCA landholdings in compliance with relevant Federal, Provincial and Municipal regulations, policies, and guidelines.

Manage GRCA landholdings in a strategic, fiscally responsible, and sustainable way.

Provide sustainable outdoor recreational and educational opportunities and connections with the natural environment.

(In the opinion of City staff, "Consider watershed health and resilience when making land management decisions" and "Enhance community partnerships on GRCA properties" are the most important and of equal importance.)

8. Do you have any additional comments on the Strategy objectives?

No

9. Do you have any additional comments related to the Conservation Areas Strategy?

The City of Guelph is very supportive of the draft Conservation Areas Strategy and notes the alignment of the draft strategy with the City's Strategic Plan, Official Plan and Natural Heritage Action Plan. Many of the draft strategy's listed "Outcomes", "Future Direction" and "Actions" align with:

- the "Environment" theme of Guelph's Strategic Plan,
- the "watershed planning to manage growth and infrastructure", "natural heritage and biodiversity conservation", "resilience and restoration planning", and "fostering community support, raising awareness and engagement" actions identified in the City's Natural Heritage Action Plan, and
- the strategic goals, objectives and policies of Guelph's Official Plan.

From:	Hugh R Whiteley
To:	Megan Kitchen
Subject:	Comments on GRCA Draft Conservation Areas Strategy
Date:	October 4, 2024 4:03:25 PM
Attachments:	COMMENTS ON GRCA DRAFT CONSERVATION AREAS STRATEGY.docx 1970 Guelph Valley Land Project Agreement.pdf Table 7.1 Hanlon Creek Conservation Area Master Plan.pdf 1978 Master Plan for Niska Lands (pages 88-90.pdf 1979 CITY COUNCIL APPROVAL OF MASTER PLAN.pdf 1986 LETTER TO MNR ON HCCA MASTER PLAN.pdf

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Greetings:

I attach my comments on the Draft Conservation Areas Strategy

To supplement my comment that the absence of a commitment to complete the establishment of the Hanlon Creek Conservation Area is a major defect in the Strategy I also attach te following documents that identify past commitments regarding the HCCA.

1. The 1970 Agreement of the City of Guelph and GRCA to establish the HCCA.
2. Table 7.1 of the HCCA Master Plan that lists the two purchases forming the Niska Lands as part of the HCCA
3. The section of the HCCA Master Plan that specifies the future use of the Niska Lands and specifically identifies the upland cultivated fields as part of the future zoological park.
4. The anouncement of the adoption of the HCCA Master Plan by the GRCA and the City of Guelph with a twenty year completion target.
5. A 1986 letter confirming continued interest by GRCA and City of Guelph in the HCCA.

If any of the information I provide is judged by the GRCA to be inaccurate or incomplete I would like to know which information is disputed and what is the reason for the dispute.

Best regards

Hugh Whiteley

Appendix E

Guelph
ONTARIO · CANADA

City Hall · Telephone 822-1260

January 20, 1970.

Mr. G. M. Coutts,
General Manager,
Grand River Conservation Authority,
P. O. Box 729,
Galt, Ontario.

Dear Sir:

At a meeting of the Guelph City Council held last evening, the following resolution was passed:-

"THAT the Grand River Conservation Authority be requested to undertake a conservation project for the Hanlon Creek Watershed with particular consideration to be given to the following objectives:

a) THAT the conservation zone comprise approximately 845 acres, of which 770 acres are located in the City of Guelph and 75 acres in the Township of Puslinch as generally set out in the preliminary report made to the Authority by Kilborn Engineering, Limited, in February of 1968.

b) THAT provision be made to receive all major flows of storm water into sedimentation ponds strategically designed and located so that maximum recharge of the ground water aquifer results and so that fluctuation of run-off from the watershed is minimized in so far as is possible.

c) THAT consideration be given to the development of ponds and small lakes through spot mining of gravel as a method of making such excavations economically feasible.

d) THAT, in addition to giving full consideration to conservation objectives, consideration also be given to utilization of a proportion of the existing open space for area park and recreation needs.

e) THAT the location of the Ontario Waterfowl Research Foundation premises at the lower end of the Watershed be recognized and that the water requirements of this use be considered in the plans made for water conservation.

f) THAT the conservation project be so designed that land acquisitions and construction of facilities can readily be planned and staged in conjunction with related urban land development of the surrounding area, but without prohibiting earlier acquisition of lands which may become available anywhere in the Watershed, at realistic prices.

g) THAT there be consultation with the Technical Advisory Committee for the Hanlon Expressway with regard to the pedestrian underpass now planned at Hanlon Creek and with regard to the drainage from the Expressway which will occur both during and after construction, in order that any problem relating to the proposed project may be recognized in advance of specific design and construction.

h) THAT the direct City of Guelph share of the cost not exceed forty per cent of the total cost with the City to receive the benefit of such more favourable proportioning of cost as may be established from year to year.

Yours truly,

W. G. Hall

W. G. Hall,
City Clerk.

TABLE 7.1

LAND ACQUISITIONS

DATE PURCHASED	VENDOR	ACREAGE	LOCATION	COST
1971	Estate of Henry H. Hanlon	42.44	Parts of Lots 14, 15, Con. 6, City of Guelph, Wellington County	$120,000.00
1972	Guelph Woodlands Limited	92.96	Lots, 15, 16,17, 18, 19, 20, 21, 22 Plan 74, Con. 7 City of Guelph and part of lot 9, Con 7, City of Guelph, Wellington County	$219,923.25
1973	Estate of Margaret Ann McCurdy	98.15	Part of N.E. Part of Lot 6, City of Guelph Wellington County	$245,382.50
1973	Grant B. Howitt et .al	104.28	Front or S.W. part of Lot 5, Con 7, City of Guelph Wellington County	$281,550.60
1974	Quinten Van de Vrie	25.80	Part of Lot 8, Con 7, City of Guelph, Wellington County	$ 64,510.00
1976	University Village (Guelph) Ltd.	10.00	Block B, Reg. Plan 657, City of Guelph, Wellington County	$ 36,000.00
1976	Hanlon Park Development Ltd.	65.22	Part of S.W. or Front Parts of Lots 3 & 4 Part of S.E. or Front Part of Lot 4, Con 7, City of Guelph, Wellington County	$195,669.00
1977	Ontario Waterfowl Research Foundation	116.	Parts of Lots, 1, 3, 4, 5, 6, 7, 9, 10, & 11, Plan 61R1483 City of Guelph and Puslinch Township Wellington County	$300,000.00
1977	Major Holdings & Developments Limited	68.67	Part of the front or S.W. part of lots 6 and 7, Con 7 designated as part of Ref. Plan 61-R-1644, City of Guelph Wellington County	$206,028.00
1977	Major Holdings & Developments Limited	2.48	Part of the front or S.W. part of Lot 8, Con 7 City of Guelph designated as part 2 Reg. Plan 61-R-1644, Wellington County	$ 7,434.00
1980	George & Sam Galineas	9.84	Part of front or S.W. part of Lot 2, Con. 7, City of Guelph	$ 25,000.00
	TOTAL ACCUMULATED ACREAGE	635.90	TOTAL	$1,701,497.35

be simple and maintenance free. (i.e.) vault-toilets, picnic tables, firepits and simple shelters of indigenous materials.

The future of Kortright Waterfowl Park is of a major concern to the Conservation Authority at this time. Located at the confluence of Hanlon Creek and the Speed River its function is very important with regard to other activities planned for the watershed.

The objectives of Kortright Park and the research facilities located there are admirable in their own right, however, the actual physical facilities as well as the current financial situation of the waterfowl foundation leave something to be desired. There is no question as to the value of such a facility to the municipality in terms of both education and recreation.

Except for the water resources in the area it cannot be stated that it is an ideal habitat for waterfowl propagation. In terms of ideal habitats, the area is poor or fair at best. Recognizing these facts, it is proposed that the area come under a new concept for its use and management. The concept envisioned is one of a zoological park. The natural features in the area range from

cedar swamps to cultivated upland fields. Due to this variety in landscape and vegetation, it is quite conceivable to establish and maintain an area that would function with a greater variety of species than now exists.

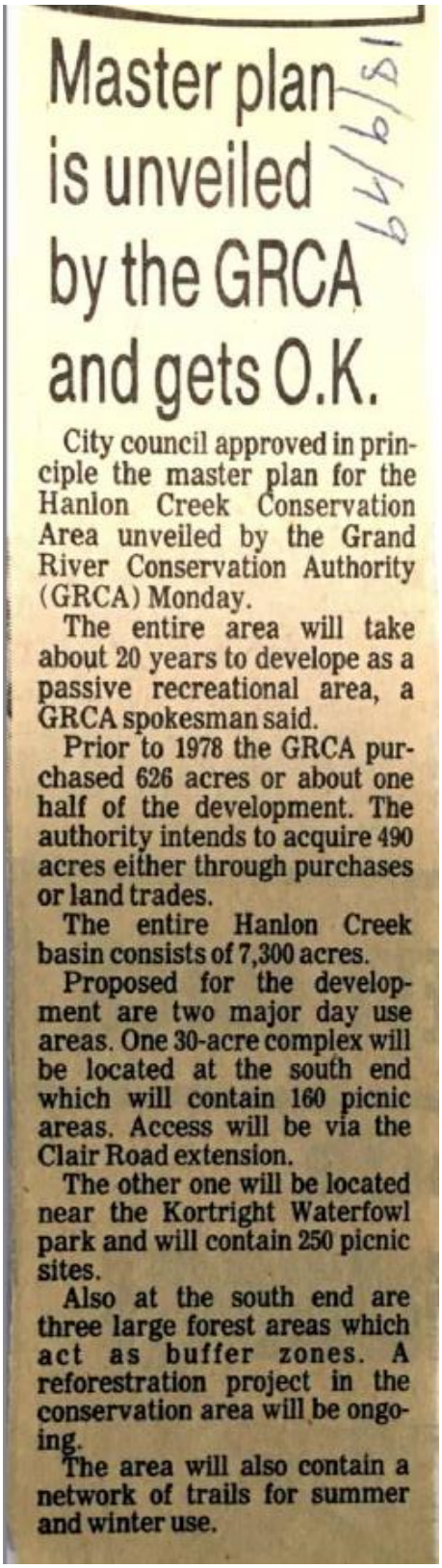
The City of Guelph may or may not see a zoo as part of their recreational and cultural activities, however, if the proposal is adopted in principle, the "Zoological park" idea should be maintained and limited to species that are relatively native to Ontario.

Furthermore, such a facility should be designed to ensure a "naturalistics" setting for both wildlife and prople. Many of the features embodied in the Metro Toronto Zoo could be applied on a mini-scale to this site.

As stated previously, waterfowl propogation is an admirable endeavour, however, the provision of adequate habitat is much closer to the natural scheme of things. Given this, an area has been designated as waterfowl habitat in the open marshy area east of the central woodlands. The area is envisioned only as a migratory stopover point which would be used by waterfowl to feed and rest in the spring and fall. At least 2 ponds exist in

the area now and others could be dug which would not be part of the Hanlon Creek system. In addition, adjacent areas can be planted in lure crops each year and this would be the extent of any management programs.

The area north of Kortright Road which includes the golf-course lands, and the esker and kettle formations has been designated as municipal parkland. This area provides a logical transition zone between the existing built-up areas and the university lands and the conservation area. Its existing semi-manicured state will allow for easy development as parkland and in addition, the glacial formations in the area, if properly used, can be a tremendous visual asset. At the northern end of this section there is a natural amphitheatre formed by the eskers in that area. This feature could be taken advantage of with the creation of an outdoor theatre for various cultural events including films, live theatre, and concerts. This type of activity, along with activities designed especially for young people falls into the "unmet needs" category as a result of the 1971 survey. In addition, portions of this area are suitable for use by greater numbers of people than much of the conservation zone.



Master plan is unveiled by the GRCA and gets O.K.

City council approved in principle the master plan for the Hanlon Creek Conservation Area unveiled by the Grand River Conservation Authority (GRCA) Monday.

The entire area will take about 20 years to develope as a passive recreational area, a GRCA spokesman said.

Prior to 1978 the GRCA purchased 626 acres or about one half of the development. The authority intends to acquire 490 acres either through purchases or land trades.

The entire Hanlon Creek basin consists of 7,300 acres.

Proposed for the development are two major day use areas. One 30-acre complex will be located at the south end which will contain 160 picnic areas. Access will be via the Clair Road extension.

The other one will be located near the Kortright Waterfowl park and will contain 250 picnic sites.

Also at the south end are three large forest areas which act as buffer zones. A reforestration project in the conservation area will be ongoing.

The area will also contain a network of trails for summer and winter use.

Appendix E

Grand River Conservation Authority

Administration Office:
400 Clyde Road
Box 729 Cambridge Ontario
N1R 5W6
Telephone 621-2761
Area Code 519

January 6, 1986.

Mr. J. J. McFadden,
Regional Conservation Authorities Programme Co-ordinator,
Ministry of Natural Resources,
Central Region,
10670 Yonge Street North,
RICHMOND HILL, Ontario. L4C 3C9

Ministry of Natural Resources
RECEIVED
JAN 9 1986
CENTRAL REGION

Dear Jack:

Re: Hanlon's Creek Master Plan

Thank you very much for your letter of December 20, 1985 concerning the above matter, which just arrived today.

In view of this project having a long-standing high priority with the City of Guelph, and that there is still land to be purchased as it comes on the market, we are most anxious to have you proceed with obtaining a Master Plan approval.

I would hereby authorize you to make a reduction in the amount of approval requested for land acquisition. In the intervening years since this plan was prepared, we have purchased one major property at a cost of some $250,000.00. The revised breakdown of costs should now be:

Capital Development	$ 350,600	Recreation
Land Acquisition	335,400	Water — can this be justified?
	686,000	

Cost Sharing Arrangement

Province of Ontario 50% Grant	175,300
Province of Ontario 55% Grant	184,470
	359,770
Grand River Conservation Authority	326,230
	686,000

Please find enclosed a revised Map 9.1, which indicates the property that has been purchased since our original application.

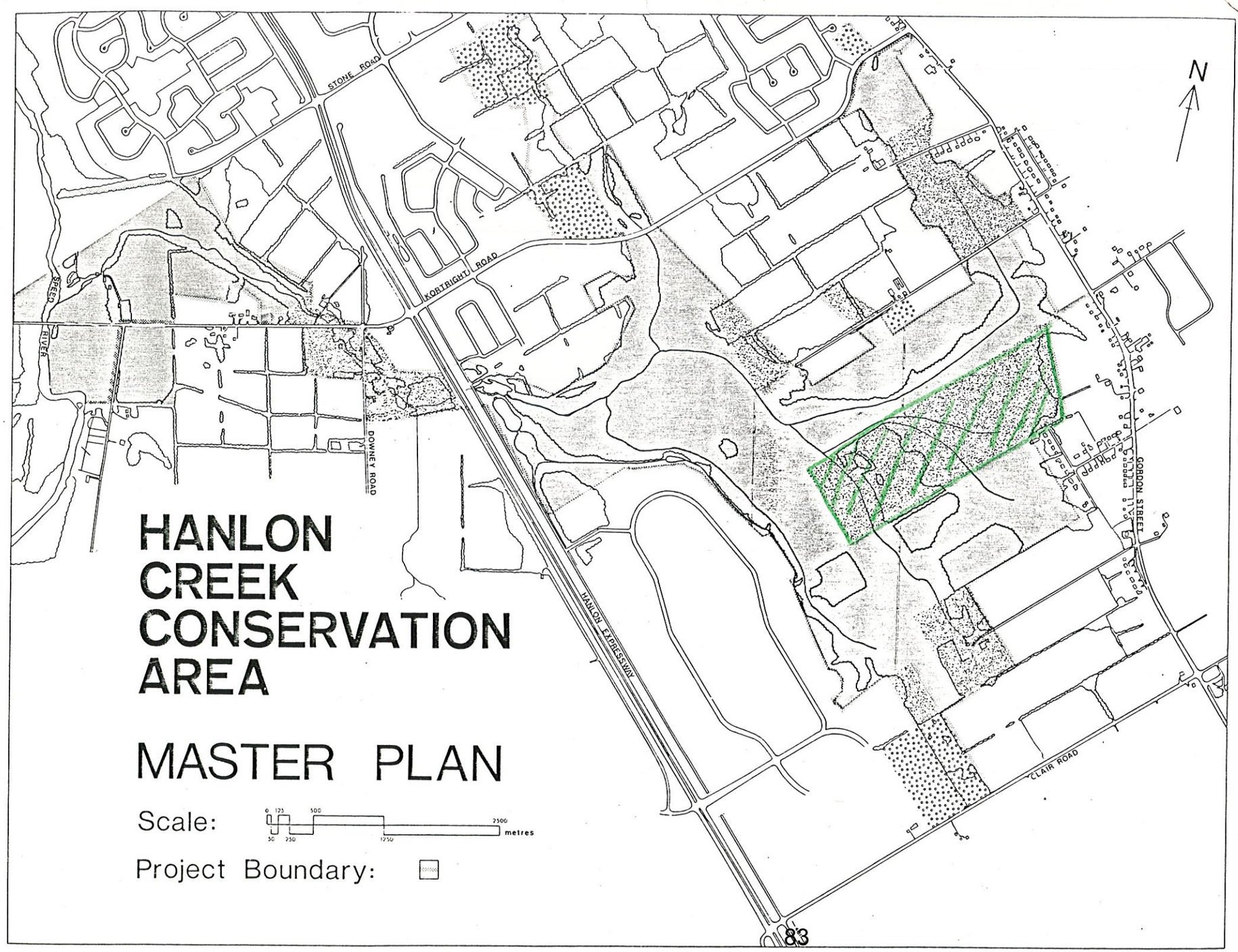
Thank you very much for your kind attention.

Yours very truly,

Ronald D. Fox,
Secretary-Treasurer,
Grand River Conservation Authority.

Enclosure

RDF/ph



Proposed land acquisition

- To be acquired
- G.R.C.A. property
- City property

In a program of wetland and open space acquisition, the unprotected lands necessary to the project, totalling 79 ha, will be purchased or obtained through land exchanges and open space dedications associated with urban development. The estimated cost of land acquisition is $585,390.

COMMENTS ON GRCA DRAFT CONSERVATION AREAS STRATEGY

Hugh Whiteley October 4 2024

Importance of conservation lands in providing access to nature

One of the Mandatory Programs and Services that the GRCA is required to conduct is to provide the public with locations for nature-based recreation.

The importance of contact with nature to the physical, mental and spiritual health of individuals and communities is increasingly recognized on the international, national, provincial and municipal scale.

Internationally the World Health Organization has published a study on the beneficial impact of easy access to green and blue spaces on mental health (Green and Blue Spaces and Mental Health – WMO 2021).

The December 2022 Montreal Conference of Parties to the Convention of Biological Diversity agreed on the Kunming-Montreal Global biodiversity framework which includes, in Target 12, the objective "improving human health and well-being and connection to nature" through "Significant increase (in) the area and quality and connectivity of, access to, and benefits from green and blue spaces in urban and densely-populated areas".

Nationally, Parks Canada has plans for eleven new urban parks "to conserve and restore nature in cities, help protect cities from the impacts of climate change, provide access to nature close to where people live, conserve and share cultural heritage, and advance reconciliation with Indigenous peoples."

In Ontario the provinces' first provincial urban nature park was opened July 1 2024. The Minister of Environment Conservation and Parks stated that "With 83 per cent of Ontario's growing population located in urban centres, it is imperative that we build more provincial parks closer to home….. I look forward to working with our partners to protect and expand green spaces for future generations to enjoy"

Defects in Draft Conservation Areas Strategy

The current draft has three large defects. First it fails to emphasize the current consensus among all levels of government of the need for expanding the area and

accessibility of green and blue areas in or near urban municipalities. Secondly it fails to mention how the GRCA will co-ordinate its conservation lands strategy with similar efforts at the municipal provincial and federal level. (It is noteworthy that while ten other Conservation Authorities benefitted from provincial grants under the $31 million provincial Wetlands Conservation Partner Program the GRCA did not participate).

Thirdly the Draft Strategy fails to mention the status of the multi million dollar Hanlon Creek Conservation Area – a joint GRCA-City of Guelph project that was intended to provide access to nature over 845 acres of river valleyland and is, instead, currently abandoned by both the City and the GRCA.

<u>Corrections needed in Draft Conservation Areas Strategy</u>

(1) The strategy should emphasize more clearly the importance of contact with nature as the health giving basis of outdoor recreation. Several places inthe draft there is mention of "outdoor recreation". This phrase should not appear by itself but always be accompanied by "in natural settings".
(2) The Strategy must include a commitment of the GRCA to organize a watershed-wide consultation process to set targets for the provision of lands giving access to nature and to allocate responsibility for meeting these targets among all stakeholders. The model for this form of target setting is the process used to establish the management
(3) plan for protecting water quality in the Grand River Waters.
(4) The Strategy should clearly state that the criteria for identifying land suitable for nature-based recreation is different from the criteria used to identify land units for Natural Heritage designation. The suitability of land for nature-based recreation is determined largely by its attractiveness, a criterion that is not considered in determining Natural Heritage designation. Natural Heritage Designation depends on the presence of undisturbed natural features and appearance is not considered. People access nature through beauty and find beauty in many more settings than qualify for Natural Heritage Designation.
(5) The Strategy must include a commitment to complete the establishment of the Hanlon Creek Conservation Area as a joint City of Guelph-GRCA project

with the Niska Lands restored as the core property of the HCCA as set out in the adopted Master Plan for the HCCA.

Grand River Conservation Authority

Human Heritage Policy

Approved by the Grand River Conservation Authority
Planning and Operations Committee
March 22, 2005
General Membership
April 1, 2005

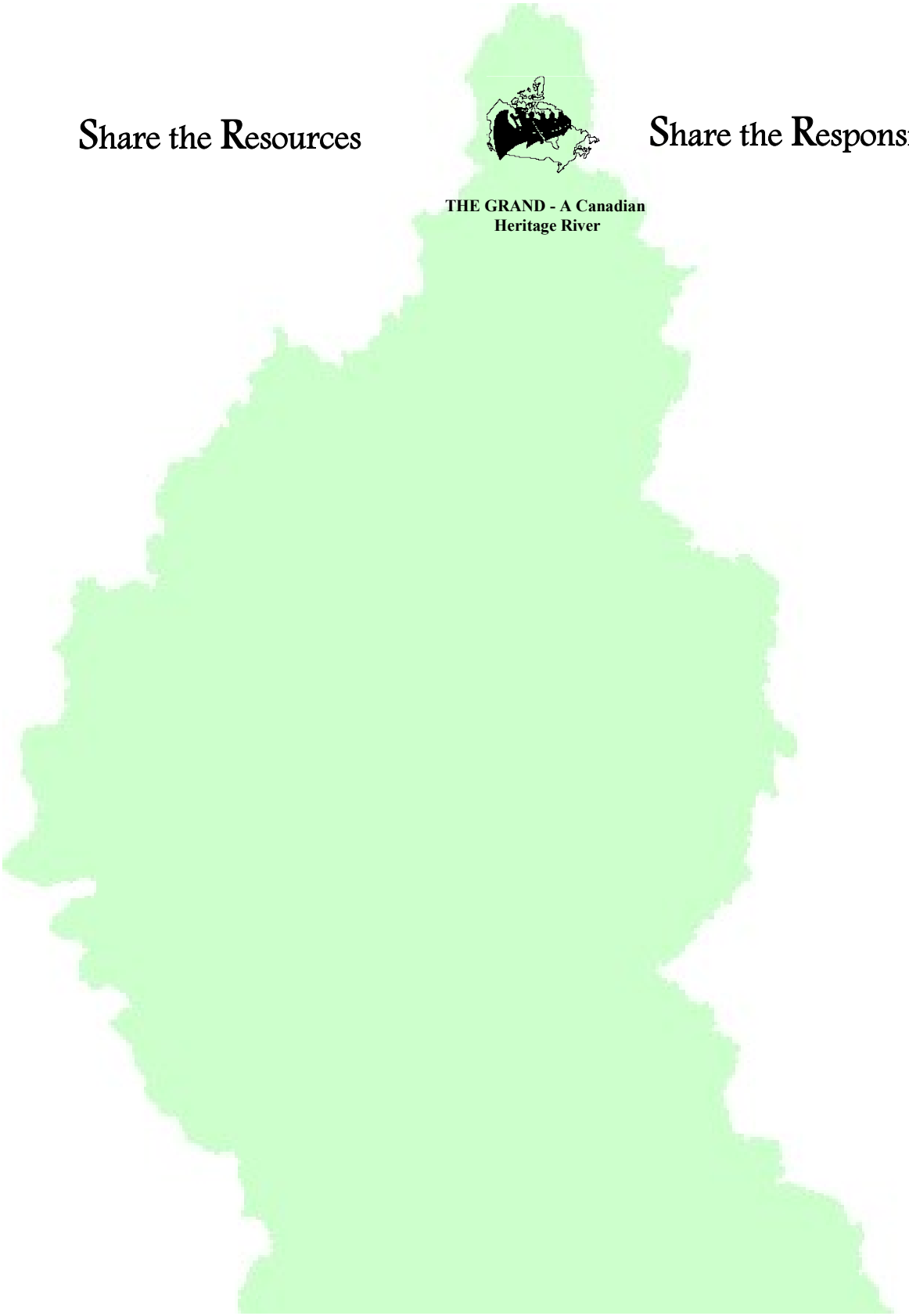
400 Clyde Road
P.O. Box 729
Cambridge, Ontario
N1R 5W6

www.grandriver.ca

Share the Resources

Share the Responsibility

THE GRAND - A Canadian Heritage River



Grand River Conservation Authority
Human Heritage Policy

1 Introduction

The Grand River provides the common thread that links natural and cultural features and landscapes throughout the watershed**.** Settlers were attracted to the Grand River valley because the river offered transportation, power and water supply. This rich history is evidenced by the many human heritage features/values that remain intact today.

Human Heritage is defined as:

"tangible and intangible elements of society including artifacts; historical and archaeological structures and sites; architecture; transportation and settlement patterns; works of art; recorded folk tales; festivals; customs; traditions and values; and landscapes – components in the living context, which provide people with a sense of place, continuity and community." (From A Decade in the Canadian Heritage Rivers System: A Review of The Grand Strategy 1994-2004, p. 4).

The Grand River Conservation Authority's involvement in human heritage resources within the Grand River watershed is two-fold:

- as custodian of the Canadian Heritage River designation for the Grand River and its major tributaries, the Speed, Eramosa, Nith and Conestogo Rivers.
- as a property owner of numerous human heritage features/values.

Canadian Heritage River Designation

In 1987, the Grand River Conservation Authority, on behalf of its member municipalities, spearheaded a participatory process to have the Grand River and its major tributaries declared a Canadian Heritage River. This status was achieved in 1994, based on outstanding river-related human heritage and recreational values of national significance. The management plan tabled with the Canadian Heritage Rivers Board as part of the requirement for designation was called *The Grand Strategy*.

The Grand Strategy embodied a new approach for managing watershed resources based on community involvement, cooperation, consensus and commitment. Conceived as a living, dynamic process, it was founded on beliefs, values and principles that provide a framework for on-going actions that strengthen the knowledge, stewardship and enjoyment of the watershed's resources.

The Canadian Heritage River designation carries no regulatory or legal restrictions. In order to maintain the heritage river status, a summary report outlining changes to the status of significant human heritage resources to the Canadian Heritage Rivers Board must be submitted annually. A full monitoring report is required every ten years. If those human heritage features/values for which the river is designated a Canadian Heritage River are degraded or lost, the river can be de-designated from the Canadian Heritage Rivers System. The loss of one feature/value does not in itself warrant loss of

the heritage river status. It is the cumulative effect of the loss of many which would cause the Canadian Heritage Rivers Board to re-evaluate the status of the river.

In 2000, the Canadian Heritage Rivers Board produced *"A Cultural Framework for Canadian Heritage Rivers"*. This framework provides a common vocabulary and approach to the identification of important human heritage features/values associated with existing and potential Canadian Heritage Rivers. The Heritage River Inventory for the Grand River was re-categorized and updated according to this framework in 2003 as part of the preparatory work required for the 10-year review.

The first 10-Year Monitoring Report for the Grand River as a Canadian Heritage River was completed in 2004. In addition to providing an assessment of the features/values for which the Grand River was declared a Canadian Heritage River, participants revisited and reaffirmed the vision, values, principles, goals and objectives of *The Grand Strategy*. A revised set of primary actions was developed to provide a relevant framework within which future collective or individual actions can be taken.

Role of the GRCA in the Canadian Heritage River Designation

The Grand River Conservation Authority, in spearheading the Canadian Heritage River designation process, is responsible for reporting to the Canadian Heritage Rivers Board through the province of Ontario on the status of the Grand River as a Canadian Heritage River.

Role of the Grand River Conservation Authority as Property Owner

The Grand River Conservation Authority (GRCA) owns and manages approximately 19,000 hectares of land comprising 2.8% of the area located within the Grand River watershed. These lands have been acquired for the following purposes:

Water Management:	lands for dams/water management reservoirs, erosion control projects and dykes
Natural Heritage:	lands that are environmentally sensitive (e.g. Provincially Significant Wetlands, Areas of Natural and Scientific Interest)
Forested Lands:	managed forests, Carolinian Canada forests
Natural Hazards:	lands that are unsafe for development (e.g. steep slopes, floodplains)
Recreational Lands:	lands that are used for recreation (e.g. conservation areas, rail-trails)

In addition, some of the lands owned by the Grand River Conservation Authority are leased for agricultural and/or residential use. The Conservation Authority also has cottage lots, which were developed in the 1960s at Belwood and Conestogo Lakes.

In total, the Conservation Authority rents over 60 residential properties, 2,000 ha of agricultural land and 735 cottage lots. The Grand River Conservation Authority also owns historic mills including Everton and Apps' Mill and the mill ruins at Rockwood (Harris Woollen Mills) and Guelph (Goldie Mill). The GRCA also owns 32 water control structures along the Grand River system.

As the custodian of the Canadian Heritage River designation and as a property owner, the Grand River Conservation Authority supports the purpose of the Canadian Heritage Rivers System *"to recognize, protect and manage, in a sustainable manner, Canada's important rivers and their natural, human & cultural/historical heritage and recreational values"* (from the CHRS, Charter, 1997).

To date, the human heritage features/values associated with Grand River Conservation Authority properties have been dealt with on a case-by-case basis.

2 Policy Intent

This policy provides guidance to assist the Grand River Conservation Authority in fulfilling its role as custodian of the Heritage River designation for the Grand River and its major tributaries and making decisions about human heritage features/values associated with GRCA-owned properties in a more proactive and comprehensive manner.

3 Goals

With respect to the Canadian Heritage River designation, the Grand River Conservation Authority has the following goals:

- To increase awareness of special status of the Grand River as a Canadian Heritage River.
- To report on the status of the Grand River as a Canadian Heritage River as required by the Canadian Heritage Rivers Board.
- To encourage member municipalities and other owners of human heritage features/values included in the Heritage River Inventory to protect and interpret human heritage features/values.

Through its programs and operations, the Grand River Conservation Authority has the following management goals for human heritage features/values **associated with its properties.**

- To identify, interpret, and monitor human heritage features/values.
- To maintain and protect human heritage features/values, to the extent possible.
- To restore significant human heritage features/values, wherever possible.
- To document and commemorate human heritage features/values where environmental, economic and or social considerations (e.g. public safety) override human heritage benefits.
- To promote stewardship for human heritage features/values on properties offered for sale.

4 GRCA Human Heritage Policies

4.1 The GRCA will prominently display the Canadian Heritage River logo on all of its publications and on its website.

4.2 The GRCA will promote heritage appreciation and celebration of the Grand River as a Canadian Heritage River through its participation in the annual Heritage Day Workshops and other educational and celebratory events.

4.3 The GRCA will update annually the Heritage River Inventory according to the Cultural Framework approved by the Canadian Heritage Rivers Board as new information becomes available from member municipalities, heritage organizations and heritage studies.

4.4 The GRCA will report annually to the Canadian Heritage Rivers Board on the status of human heritage features/values contained in the Heritage River Inventory.

4.5 The GRCA will provide administrative and some financial support to the Heritage Working Group of *The Grand Strategy.* (Appendix)

4.6 The GRCA will encourage watershed municipalities, through the Authority's plan review or permit review process, to recognize and protect heritage features/values that are contained in the Heritage River Inventory to the extent possible and advise them that the cumulative loss of important features may cause the Canadian Heritage Rivers Board to re-evaluate the national status of the Grand River and its major tributaries.

4.7 The GRCA will investigate potential funding sources, seek partnerships and develop options for implementing a long-term plan that establishes priorities for protecting, maintaining, restoring, monitoring, and interpreting human heritage features/values on GRCA properties.

4.8 Where a property is offered for sale, the GRCA will take appropriate steps to ensure that the subsequent landowners recognize and manage any human heritage features/values associated with the property in a manner which supports the Canadian Heritage River designation, such as a heritage easement, designation under the Ontario Heritage Act or commemorative plaque.

4.9 Where it is not economically feasible to maintain a heritage feature/value and where all efforts to secure the needed resources are tried, the GRCA may offer the property for sale in accordance with policy 4.8.

4.10 Where, after careful consideration, the environmental and/or social benefits of removing a feature or value or the economic liabilities associated with a feature or value outweigh the benefits of retaining the feature or value, the GRCA will document it, save as many remnants and/or artifacts as possible and donate them to an appropriate institution, if appropriate, and commemorate it with an interpretive plaque or other commemorative feature.

5 Implementation

5.1 The GRCA will carry out an inventory of human heritage features/values on Grand River Conservation Authority properties and add any found that are significant

within the context of the Cultural Framework approved by the Canadian Heritage Rivers Board to the Heritage River Inventory. In order to assess significance, heritage criteria will be developed.

5.2 Where properties have not yet been inventoried, the GRCA will undertake a study of human heritage features/ values and assess their significance early in any decision-making process related to land disposition, land use change or demolition in accordance with policy 5.1.

5.3 The GRCA will develop a GIS data base to house the Heritage River Inventory, including those human heritage features /values of significance on GRCA properties and will make this inventory accessible to the GRCA staff and general public through the GRCA website.

5.4 The GRCA will develop a long-term plan that establishes priorities for protecting, maintaining, restoring, monitoring, and interpreting human heritage features/values on GRCA properties.

5.5 The GRCA will review this Policy at five-year intervals, except where changes in provincial legislation, regulation or guidelines require otherwise.

Goldie Mill - Guelph

Apps' Mill - Brant

Harris Woolen Mill - Rockwood

Hortop's (Everton's Mill)

Grand River Conservation Authority
Human Heritage Policy

Appendix

Heritage Working Group

As a direct result of *The Grand Strategy*, the Heritage Working Group was formed in 1995 to act as a catalyst for increasing community involvement and commitment in greater appreciation, protection, enhancement, promotion, coordination, celebration and management of the human heritage resources in the Grand River watershed. The membership of the Heritage Working Group is drawn from all areas of the Grand River Watershed and includes representation from government agencies, universities, heritage groups, national historic sites, museums, Grand River Conservation Authority and others.

During the past 10 years the Heritage Working Group has achieved a number of notable results. Each year since 1998, it has hosted a Heritage Day Workshop and Celebration in partnership with various watershed municipalities and heritage organizations and the Grand River Conservation Authority. In 2004, it guided a watershed inventory of heritage bridges and a 10-year review for the Grand River as a Canadian Heritage River.

The Heritage Working Group's mission is:

> *To increase the involvement and commitment of government/non-government agencies, businesses/corporations, property owners, schools and universities, media and citizens resulting for greater appreciation, protection, enhancement, promotion, coordination, celebration and management of the* ***human heritage*** *resources in the Grand River watershed and thereby maintaining the river's national designation under the Canadian Heritage Rivers System. We achieve this annually by:*
>
> - *facilitating opportunities for networking, educating, partnering, and working collaboratively;*
> - *encouraging other like-minded organizations to initiate and develop projects;*
> - *disseminating information to our target audiences;*
> - *monitoring the status of heritage values and features;*
> - *evaluating the effectiveness of achieving our strategic goals*

Roles of the Heritage Working Group:

- acts as an advisory group and resource to the Grand River Conservation Authority in support of the Canadian Heritage River designation.
- members come together to share information with one another and with communities throughout the watershed.
- builds community capacity for the conservation and sustainable use of Grand River heritage resources/values.
- promotes the Grand as a Canadian Heritage River and disseminates information to key stakeholders that have responsibility for conserving, managing and promoting

the human heritage of the Grand River Watershed (including engagement of First Nations).

- helps monitor the status of significant heritage values and features.

Year	Workshop Theme	Location	Sponsors	Attendance
1998	What Works: How to Build Your Community's Ability to Plan, Manage and Make Decisions about Heritage	Grand River Conservation Authority	GRCA	135
1999	Help Build Your Community's Capacity to Plan and Manage Heritage Resources	Sanderson Centre, Brantford	City of Brantford/GRCA	125
2000	River Towns: Building on our Grand Heritage	Cambridge Arts Theatre	City of Cambridge/GRCA	115
2001	Heritage Makes $ense: Discover Why	Walper Terrace Hotel, Kitchener	City of Kitchener/Waterloo Regional Heritage Foundation/GRCA	175
2002	Passport to the Grand South	Kinsmen Centre, Cayuga	Haldimand County/Ministry of Culture/GRCA	300
2003	Grand Renewals: Adaptive Reuse and the Cultural Landscape	Guelph Youth Music Centre	City of Guelph/GRCA	180
2004	Grand Legacies: Boom, Bust and Beyond	Paris Fairgrounds	County of Brant/City of Brantford/GRCA	225
2005	Bridging Time	Fergus Legion	Township of Centre Wellington/GRCA	235

Grand River Conservation Authority

Report number: GM-10-24-86

Date: October 25, 2024

To: Members of the Grand River Conservation Authority

Subject: Permits Issued under Ontario Regulation 41/24

Recommendation:

THAT Report Number GM-10-24-86 – Permits Issued under Ontario Regulation 41/24 be received as information.

Summary:

To provide the General Membership of the Grand River Conservation Authority with a quarterly summary of permits approved and issued by staff that conform to current Grand River Conservation Authority policies for the Administration of the Prohibited Activities, Exemptions and Permits Regulation 41/24.

Report:

April, May and June 2024 total number of permits approved and issued: **136**

City of Brantford:	6	Township of Centre Wellington:	9
City of Cambridge:	10	Township of East Garafraxa:	1
City of Guelph:	4	Township of East Zorra-Tavistock:	0
City of Hamilton:	5	Township of Guelph/Eramosa:	4
City of Kitchener:	8	Township of Mapleton:	6
City of Waterloo:	6	Township of Melancthon:	2
County of Brant:	9	Township of North Dumfries:	2
Haldimand County:	15	Township of Norwich:	2
Norfolk County	0	Township of Perth East	1
Town of Erin:	0	Township of Puslinch:	5
Town of Grand Valley:	2	Township of Southgate:	2
Town of Milton:	4	Township of Wellesley:	9
Township of Amaranth:	0	Township of Wellington North:	0
Township of Blandford-Blenheim:	3	Township of Wilmot:	7
		Township of Woolwich:	14

Financial Implications:

Not Applicable.

Other Department Considerations:

Not Applicable.

Prepared by:

Melissa Larion
Supervisor of Planning and Regulations

Approved by:

Samantha Lawson
Chief Administrative Officer

Grand River Conservation Authority

Report number: GM-10-24-96

Date: October 25, 2024

To: Members of the Grand River Conservation Authority

Subject: Water Control Structures Asset Management Plan

Recommendation:

THAT Report Number GM-10-24-96 – Water Control Structures Asset Management Plan be received as information.

AND THAT the Water Control Structures Asset Management Plan be approved and implemented.

Summary:

The GRCA owns and operates 28 dams. Eight of the dams are used to manage flows within the watershed and are classified as multi-purpose dams. The multi-purpose dams serve two key functions: managing floods and supplying water to the river during periods of low flow (flow augmentation) .

Under *Ontario Regulation 686/21*- Mandatory Programs and Services, the Grand River Conservation Authority (GRCA) is required to complete an asset management plan to support the mandatory programs and services for flood control, low flow augmentation and erosion control infrastructure.

Report:

As the owner of water control infrastructure, GRCA is accountable for its safe operation and maintenance. An asset management plan has been prepared for eight (8) flood control and/ or flow augmentation dams, and six dike and floodwall systems. This includes completing condition assessments and providing recommendations for major maintenance and replacement of components for the eight (8) dams. This work was completed by engineering consultant Hatch Ltd., approved by the GRCA as outlined in report GM-09-23-65 with input from GRCA staff.

The plan provides clear documentation and support for the decision-making process for prioritizing maintenance and managing the water control infrastructure assets. The plan will assist the GRCA in deciding when and how much will be required to invest in existing water control infrastructure assets to maintain the required level of service to provide flood control and low flow supply functions. Auxiliary benefits such as hydro-production and recreation are not prioritized in this asset management planning process.

The project to complete this Asset Management Plan included the following:

- Describes the required levels of service for each water control structure.
- Documents the GRCA asset management and dam safety management strategy.
- Updates the existing inventory of dam and dike asset components (e.g., electrical, mechanical, and structural components).
- Completes condition assessments for eight (8) dams (7 large dams and 1 flow augmentation dam) , including the expected service life and estimated remaining life of

electrical and mechanical components, replacement value of electrical and mechanical components, and major maintenance costs for structural components.
- Develops a template to monitor the asset management plan for future modifications and improvement, particularly as engineering inspections or dam and dike safety assessments identify new priorities.
- Provides the anticipated 20-year capital expenditures for maintaining GRCA's water control structures to provide the required levels of service.

This Asset Management Plan will be a living document and will be updated as new information and priorities arise following engineering inspections, conditions assessment and updates to dam safety assessments. The Water Control Structures 5 Year Capital Forecasts will continue to be presented to the Members of the Grand River Conservation Authority annually, and adjustments in priorities will be reflected in the 5 Year Capital Forecasts and Annual Budget.

This Asset Management Plan does not include the remaining 20 small dams which are typically run-of-the-river or structures associated with historic mill ponds and are important community features. GRCA will continue to include these small dams in regular capital budgeting and dam safety management processes to address maintenance, refurbishment and replacement as required to safely maintain and operate these structures.

Financial Implications:

The budget to complete the Asset Management Plan as approved by the board was $216,964 and was funded from the Land Sale Reserve. The Water Control Structures Asset Management Plan will be implemented to inform the GRCA Dam Safety Management program and associated capital budgeting process.

Other Department Considerations:

Staff from Conservation Area Operations, Accounting and Information Systems have provided support to the Hatch Team and Water Infrastructure Department in completing this plan.

Prepared by:

Katelyn Lynch
Manager of Water Infrastructure

Approved by:

Samantha Lawson
Chief Administrative Officer

Grand River Conservation Authority
Cambridge, Ontario

GRCA Water Control Infrastructure Asset Management Plan

H372538-0000-200-230-0003
Rev. 0
October 16, 2024

Grand River Conservation Authority
Cambridge, Ontario

GRCA Water Control Infrastructure Asset Management Plan

H372538-0000-200-230-0003
Rev. 0
October 16, 2024

Report

GRCA Water Control Infrastructure Asset Management Plan

H372538-0000-200-230-0003

			Skinner, Robin		
2024-10-16	**0**	**Approved for Use**	**R. Skinner**	**K. Tuskes**	**J. Westermann**
DATE	**REV.**	**STATUS**	**PREPARED BY**	**CHECKED BY**	**APPROVED BY**
				Discipline Lead	**Functional Manager**

Important Notice to Reader

This report was prepared by Hatch Ltd. ("**Hatch**") for the sole and exclusive use of Grand River Conservation Authority (the "**Owner**") for the sole purpose of assisting the management of the Owner to make decisions with respect to the use and maintenance of their water and erosion control infrastructure as described in this report (the "**Structure(s)**"), and must not be used for any other purpose, or provided to, relied upon or used by any other person. Any use of or reliance upon this report by another person is done at their sole risk and Hatch does not accept any responsibility or liability in connection with that person's use or reliance.

This report contains the opinion of Hatch using its professional judgment and reasonable care based upon observations of the condition of the Structures made at the time of preparation of this report, and information made available to Hatch by the Owner (the "**Owner Information**").

The use of or reliance upon this report by the Owner is subject to the following:

1. this report is to be read in the context of and subject to the terms of the relevant services agreement between Hatch and the Owner (the "**Agreement**"), including any methodologies, procedures, techniques, assumptions and other relevant terms or conditions specified in the Agreement;
2. this report is meant to be read as a whole, and sections or parts of the report must not be read or relied upon out of context;
3. unless expressly stated otherwise in this report, Hatch has not verified the accuracy, completeness or validity of the Owner Information, makes no representation regarding the accuracy of such information and does not accept any responsibility or liability in connection with the Owner Information; and
4. the condition, stability and safety of the Structures may change over time (or may have already changed) due to natural forces or human intervention, and Hatch does not accept any responsibility for the impact that such changes may have on the accuracy or validity of the opinions, conclusions and recommendations set out in this report.

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Executive Summary

The Conservation Authority Act requires Asset Management Plans for certain types of infrastructure to be implemented by December 31, 2024 (Ontario Reg. 686/21). The Act identifies water and erosion control infrastructure to be addressed specifically to "mitigate risks to life and damage to property resulting from flooding or to assist in flow augmentation."

Hatch Ltd. (Hatch) has prepared an Asset Management Plan (AMP, or Plan) for the Grand River Conservation Authority (GRCA) which identifies recommended spending over the next 20 years to maintain the water and erosion control assets in a state of readiness to maintain public safety, manage floods and provide minimum water flows. Unless used for water regulation purposes, spending on power generation assets or on recreational features is not included in the AMP.

Over the next 20 years, capital spending of approximately $31 million is recommended in the AMP. This is on top of GRCA's spending on routine operations covering staff, utilities, insurance, taxes and day-to-day maintenance (approximately $1.5 million per year for multi-purpose dam sites alone). As a test of the AMP, Hatch compared spending amounts (capital and operating) with spending at similar facilities in Hatch's database and found the spending levels to be appropriate, or even somewhat higher than the benchmarks. Life cycle spending on water control assets tends to increase with age after about 40 years and GRCA's water and erosion control assets are generally 40 to 80 years at the start of the current 20-yr plan.

This AMP highlights the next 5 years in detail, during which approximately $17 million in spending is planned for projects addressing previously identified needs. The primary projects include concrete repairs at the Conestogo Dam and embankment repairs on the Bridgeport dike, as well as undertaking dam and dike safety reviews for all sites in which the prior review is either not available or is outdated. Additional spending for up to 70 individual smaller projects at 14 facilities over the next 5 years is also forecasted in the plan.

The AMP also includes budget allowances for future uncertainties, which may result from dam safety study recommendations or normal wear and tear on facilities as they are exposed to weather events. Asset management planning is a continuous task, and planning for future condition (and risk) assessments is essential. This is typically done in the form of ongoing inspections, dam safety reviews, flood mapping and all other related activities required to manage and operate water control facilities with the highest degree of public safety and property preservation possible. The AMP must be considered a "living document" that is updated on a regular basis to consider the environment and its impact on the structures, normal aging, emerging degradation, as well as other unforeseen influences or changes in standards/codes.

1. Introduction

This document presents the Asset Management Strategy and Asset Management Plan (AMP, or Plan) for the Grand River Conservation Authority's (GRCA's) flood control infrastructure. This document is meant to form the basis for GRCA to manage these assets in accordance with GRCA's mission and in support of the communities which they serve.

This document is not intended to rigidly dictate the management of the water control infrastructure assets but rather to present a decision support framework for that management.

Hatch Ltd. (Hatch) was retained in September 2023 to carry out specific asset management tasks for GRCA. Hatch's scope included:

- condition assessments of eight dam sites, which provide flood control or flow augmentation functions (the primary dam/reservoir assets within GRCA's portfolio)
- potential failure mode analysis (PFMA) of the same eight dam sites
- a review of prior assessments and documentation on GRCA's key dike assets
- preparation of an AMP for all GRCA's water and erosion control infrastructure based on the conditions found plus input from GRCA's engineering and operations departments.

The Condition Assessment, PFMA studies, and the review of dike assets are separate documents (2024).[1,2,3]

Key understandings necessary for the creation of the Plan included:

- overview of GRCA water and erosion control infrastructure
- asset management definitions and concepts
- core services delivered by GRCA flood[4] control assets
- recent spending on flood control assets
- summary of condition for the various assets
- Plan development and methodology.

Near-term (5-yr) spending is provided in detail, along with establishment of the estimated spending expected over the next 20 years. The primary difference between near-term and longer-term project lists are the level of certainty for a budget and level of repair required for a selected site. The nature of asset management for water control facilities is that day-to-day

1 "Condition Assessment Report," Hatch Ltd., H372538-0000-230-0001, 2024.
2 "Potential Failure Mode Analysis Report," Hatch Ltd., H372538-0000-230-0002, 2024.
3 "Dikes and Floodwalls Within GRCA Report," Hatch Ltd., H372538-0000-2A0-066-0001, 2024.
4 "Flood" control, "water" control, and "water and erosion" control are used interchangeably in this report.

wear from normal weathering and use is expected; however, all facilities must be maintained in a state of readiness to handle extreme weather events of unknown severity and location.

The Plan does not include decommissioning costs over the next 20 years since no assets are intended to be decommissioned, nor does the Plan review replacement costs (in the accounting sense), since the assets are in reasonably good operational condition, with no foreseen need for outright replacement.

Finally, the Plan includes closing remarks on follow-on tasks and recommendations to be included in GRCA's ongoing needs assessments and planning activities.

2. Overview of GRCA Water and Erosion Control Infrastructure

The following list of dams and dikes are the principal water and erosion control facilities managed by GRCA (Table 2-1).

Multi-purpose dams and their reservoirs serve many purposes such as flood control, recreation, power generation and water storage for low-flow augmentation. Small dams are local amenities that provide water for storage, recreation, or even fire suppression to nearby communities. Dikes are typically linear features which serve the main purpose of flood protection by retaining and/or redirecting water which is often associated with high-flow events.

In total, there are 14 facilities included in the AMP (the multi-purpose dams, dikes, and Damascus). Twenty sites counted as “Small Dams” in GRCA’s accounting are not included in the AMP on the basis that they do not provide flood control or flow augmentation service.

Table 2-1: List of Dams and Dikes[1]

Multi-Purpose Dams	Dikes	Small Dams
Conestogo[2]	Bridgeport	Damascus[2]
Shand[2]	Brantford	Balance of Small Dams (20 sites)[3]
Guelph Lake[2]	New Hamburg	
Luther[2]	Cambridge	
Shade’s Mills[2]	Caledonia	
Woolwich[2]	Drayton	
Laurel Creek[2]		

Notes:
1. Source: grwatershedmap2020final.pdf (grandriver.ca), and GRCA.
2. Site inspected by Hatch engineering team for the development of this AMP.
3. Excluded from the AMP.

3. Definitions, Concepts and Principals

Guiding the development of the AMP are certain concepts and principals presented in this section.

3.1 Definitions and Concepts

The AMP developed for GRCA lists prospective spending, necessary to maintain the assets for their principal function of flood control and flow augmentation. Operational expenditure (OPEX) spending is a necessary part of asset management too and is reviewed later in this report.

Asset Management Plan (AMP): A tactical plan for managing and maintaining an organization's infrastructure to deliver an agreed standard of service.

Operational Expenditure (OPEX): Is day-to-day spending on staff, utilities, outsourced services, service vehicles, tools, training and typically small self-performed projects requiring few consumables. An example of an OPEX cost would be outsourced groundskeeping services.

Major Maintenance: Retains the asset through major renewal work with a cost exceeding the established corporate limits of unassigned spending allowances in OPEX budgets and requires additional management approvals. The renewal work may consist of replacing a major part of an existing asset (asset within an asset, like cables on a wire rope hoist), in which case the asset's age is a blend of old and new, and its reset age is taken into consideration. GRCA uses the term "Betterment" which is understood to be the same as Major Maintenance.

Capital Expenditure (CAPEX): Spending on outright replacement of assets; investments which could be depreciated from a financing/tax perspective. CAPEX budgets generally include for the costs of professional services for design and specifications, plus construction management. Due to the brownfield nature of the work, this could be upwards of 30% of the cost; design and construction management may also be self-performed by GRCA personnel.

For purposes of reporting, CAPEX and Major Maintenance (or Betterment) are both types of major, non-operations spending and are collectively known as CAPEX here on.

Condition Assessment: An inspection of structures, mechanical and other components of the dam to assess their current condition and documents it. It includes inspection by experienced engineers and discussions with operators to understand how the components are functioning.

Potential Failure Mode Analysis (PFMA): A documented process which brings together stakeholders from different backgrounds (operators, water managers, engineers) to identify components or operations of a dam which may result in failure. The process is intended to

enhance dam safety by identifying critical areas of concern and identifying shortcomings in data/information about a dam or dike. A failure under this assessment would be an uncontrolled release of water or an inability to release or provide flows for flow augmentation.

3.2 Core Services

This AMP focuses on water control infrastructure only. This includes dam and dike facilities and their sub-facilities that regulate minimum water flows and impound/release floodwater flows. This aligns with the Conservation Authority Act mandate and GRCA's mission (below).

> "*We will work with local communities to reduce flood damage, provide access to outdoor spaces, share information about the natural environment, and make the watershed more resilient to climate change*."

The AMP does not plan spending for power generation or recreational purposes, except for power generation assets that serve as flow regulation features. Improvements to or expansion on power generation assets requires a business case factoring potential revenues and costs and are treated separately in GRCA's planning.

4. Summary of Recent Spending

Recent CAPEX spending (2019 to 2023) on GRCA's assets included in this Plan is presented below. Spending during this period (4 years) was approximately $5 million. Project spending on any one component or asset rarely exceeds $1 million, and most projects executed by GRCA are typically $100,000 or less. Figure 4-1 shows that spending is dominated by civil/structural repairs. WECI-funded[5] spending, which is what Figure 4-1 shows, is the majority funding source, amounting to approximately $4 million of the total spent during the period.

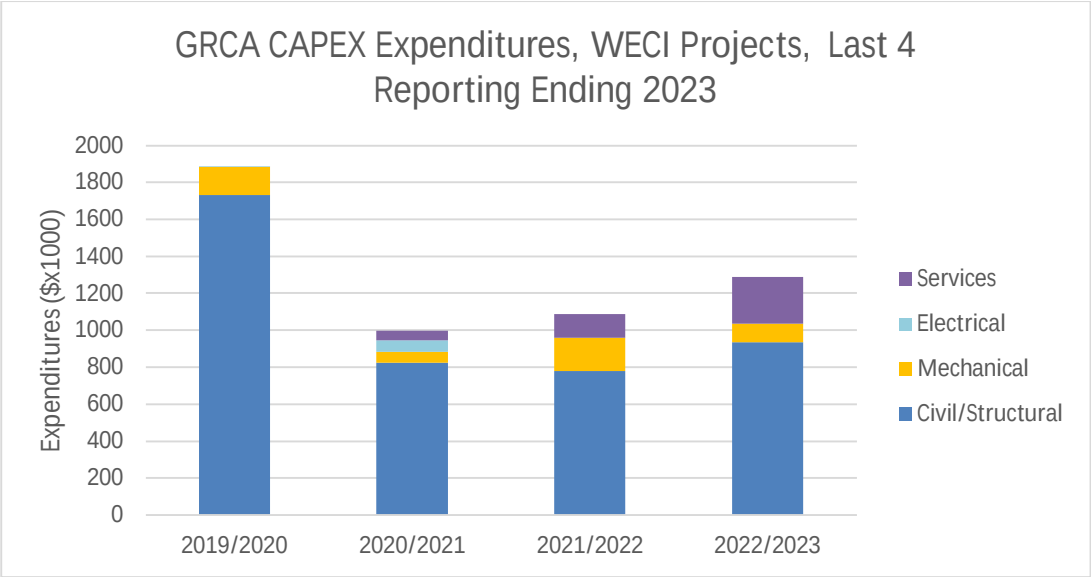

Figure 4-1: GRCA CAPEX Spent, WECI Projects, 2019/2020 to 2022/2023

In 2024 (which is not charted and is incomplete at the time of writing), the most notable spending was on the Conestogo Dam's 2024 concrete repair project, which upon completion is expected to total around $1.5 million.

5 WECI is Ontario Ministry of Natural Resources - Water and Erosion Control Infrastructure Fund; this fund supports the majority of GRCA's CAPEX spending.

5. Method for Creating the Asset Management Plan

Procedures used to create the AMP are presented in this section. Asset management is an ongoing process; the steps outlined here can and should be reviewed and adjusted in the future. Furthermore, Hatch's scope of condition assessment did not encompass all of GRCA's assets, and similar condition assessments of these other assets will be required within the Plan.

5.1 Standard of Service

The purpose of GRCA's water and erosion control infrastructure is to provide *flood control and low-flow augmentation*. This is referred to as "Standard of Service" in this Plan.

Standard of Service is captured in the Plan via the following:

- dam and dike safety reviews
- design adequacy assessments (stability, flood handling)
- component condition (assessment, reliability review, benchmarking)
- dam and reservoir risk assessments (PFMA)
- replacement and repair project planning and implementation
- performance improvement project planning and implementation.

5.2 Condition Assessment

5.2.1 Multi-Purpose Dams Plus Damascus

For the seven multi-purpose dams (principal GRCA facilities), plus Damascus, a condition assessment was undertaken by Hatch in November of 2023 and expressions of condition were logged. The adopted rating system is noted in Table 5-1.

Table 5-1: Rating System for Component Condition

Rating	Condition Description	Details
1	Excellent (E)	No noticeable defects. Some aging or wear may be visible.
2	Very Good (VG)	Only minor deterioration or defects are evident.
3	Good (G)	Some deterioration or defects are evident but function is not significantly affected.
4	Fair (F)	Moderate deterioration. Function is still adequate.
5	Poor (P)	Serious deterioration in at least some portions of the structure. Function is inadequate.
6	Very Poor (VP)	Extensive deterioration. Barely functional.
7	Failed (FD)	No longer functions. General failure or complete failure of a major structural component.

A summary of the condition assessments is presented in Appendix A and detailed in the associated Condition Assessment report. Most of the dam assets which Hatch reviewed are in “Good” condition, with some “Fair” or “Poor,” and some “Very Good” or “Excellent.” There were no assets deemed “Very Poor” or “Failed.” All sites are in good working order and are designed, operated, and maintained to meet their required service.

5.2.2 Dikes

Hatch reviewed reports and information on four of six dikes for which information was available. Hatch did not visit the dike sites.

A separate report summarizing the condition of the dikes was prepared by Hatch[6]. The dikes reviewed are generally in fair/good condition (as reported by other consultants) but require investment to maintain their Standard of Service.

5.2.3 Balance of Small Dams

GRCA-owned small dams do not provide any flood control or flow augmentation services and, as such, are out of scope of this AMP.

5.3 Prioritization

Replacement and repair projects are forecast so that the Standard of Service may be sustained. Timing of the projects are based on component age and condition. For example, a component which has not reached its end of life but is troublesome and unreliable may receive a fair or poor condition rating. This would lead to an adjustment of the remaining service life and, therefore, impact the recommended schedule for project implementation. (In other words, a component that may last 50 years with 20 years remaining life may be brought forward for replacement before its remaining 20 years of life is up because of its poorer condition.) However, the opposite is also true – assets that are in very good condition do not need immediate prioritization because of their favorable state.

5.4 CAPEX Estimates

The AMP is a spending program that lists prospective projects and associated spending year by year over the next 20 years. The Plan lists mechanical and electrical assets whose adjusted remaining life falls below 20 years and, therefore, are candidates for CAPEX spending. The asset may be in “good condition” presently, but over the next 20 years is expected to experience natural deterioration and potential scarcity of parts.

Added to the Plan is spending on assets or components deemed to be in “fair” or “poor” condition (regardless of expected remaining life). This includes assets in fair or poor condition but with very long asset life (like dikes and structural assets), since they would be expected to need major maintenance.

6 “Dikes and Floodwalls Within GRCA Report,” Hatch Ltd., H372538-0000-2A0-066-0001, 2024.

Also added to the Plan are costs for inspection work and professional services necessary for regulatory approvals, which are outside normal operating costs.

The Plan has its spending allocated by site and trade, and considers the priorities identified in the PFMA study and functional mandates of GRCA.

The AMP also recognizes OPEX spending, which must maintain the asset's day-to-day functional requirements. The condition assessment and PFMA studies have shown those functional requirements are currently being maintained. GRCA may choose to increase OPEX by self-performing some of projects (those with relatively small budgets), thereby shifting a project from major maintenance to OPEX.

The method and assumptions for CAPEX spending estimates are follows:

- Costs derived from Hatch and GRCA recent experience – budgetary quotes were not obtained from the market.
- Structural assets would be subject to major maintenance, not replacement.
- Plan does not include decommissioning costs.
- Professional services, such as design, specifications and construction management, are included in the replacement costs.

Professional services for ongoing dam and dike safety reviews, additional condition assessments, flood mapping, and like services also form part of the AMP. Dam safety reviews and engineering assessments performed as part of the Plan may identify significant projects to address dam safety or regulatory compliance that has not been necessarily accounted for in the 20-yr CAPEX.

5.5 GRCA Staff Input and Workshop

Hatch and GRCA held a workshop on the initial draft of the Plan on October 3, 2024. Input from that workshop, and follow-up input from GRCA staff, has been incorporated into this AMP.

6. Asset Management Plan Highlights

As stated in the prior section, this AMP is a prospective spending program developed via condition assessments and experienced judgement to maintain the Standard of Service required of the assets. The details of the spending program, by site, project and year, are in provided in Appendix B.

Overall, there are 131 identified Projects in the Plan**.** A Project is defined as spending at the component level, at a particular site, in a particular calendar year; while a component may be a gate, or a spillway, or an embankment feature. Extensive refurbishments that are “multi-year” in nature are counted as multiple single-year projects to analyze yearly spending amounts. Some owners refer to multi-year projects as a “program.”

6.1 Near-Term CAPEX Spending Plan (Years 1 to 5) - $17 Million

Near-term spending (in the initial 5-yr period of the plan) is identified as $17 million spread over 15 sites and 76 projects (in year 2024 dollars). The principal projects in the near term are concrete repairs at Conestogo Dam, embankment repairs on Bridgeport dike, and professional services for dam safety reviews. Hatch notes that the upcoming spending contained in this Plan in the near-term averages around $4 million per year, which is considerably more than the average of spending in years 2019 to 2023 (which averaged a little more than $1 million per year). Deferment or advancement of projects in the near term may be considered by GRCA, guided by asset condition, Standard of Service, economies of scale, and cost leveling. Some of the large expenditures for construction (Bridgeport and Brantford dikes) are estimates based on high level assessment of alternatives in the environmental assessment process and will be refined at detailed design stages and through the construction tendering process.

Summary of near-term spending follows in Figure 6-1, Figure 6-2 and Figure 6-3.

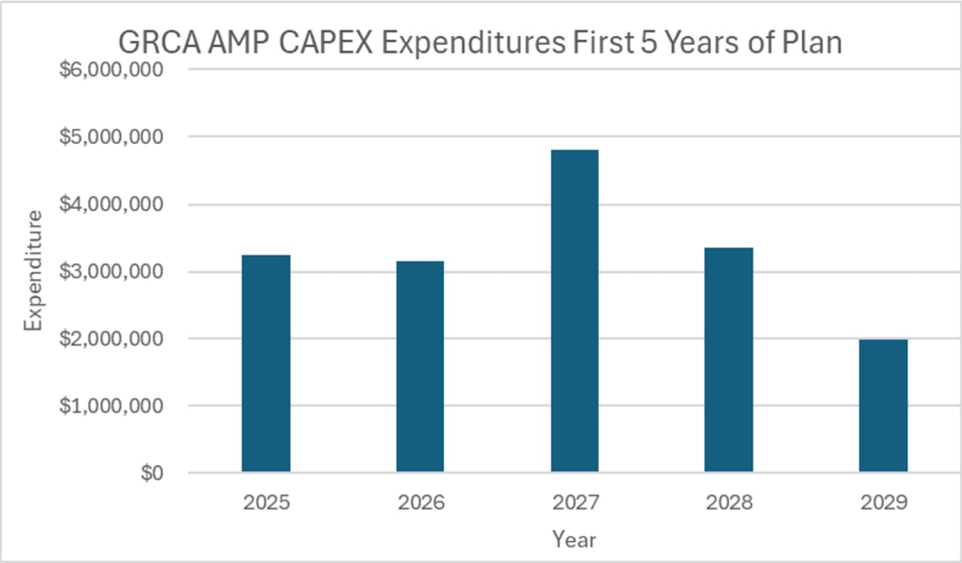

Figure 6-1: Asset Management Plan CAPEX Expenditures - First 5 Years of Plan

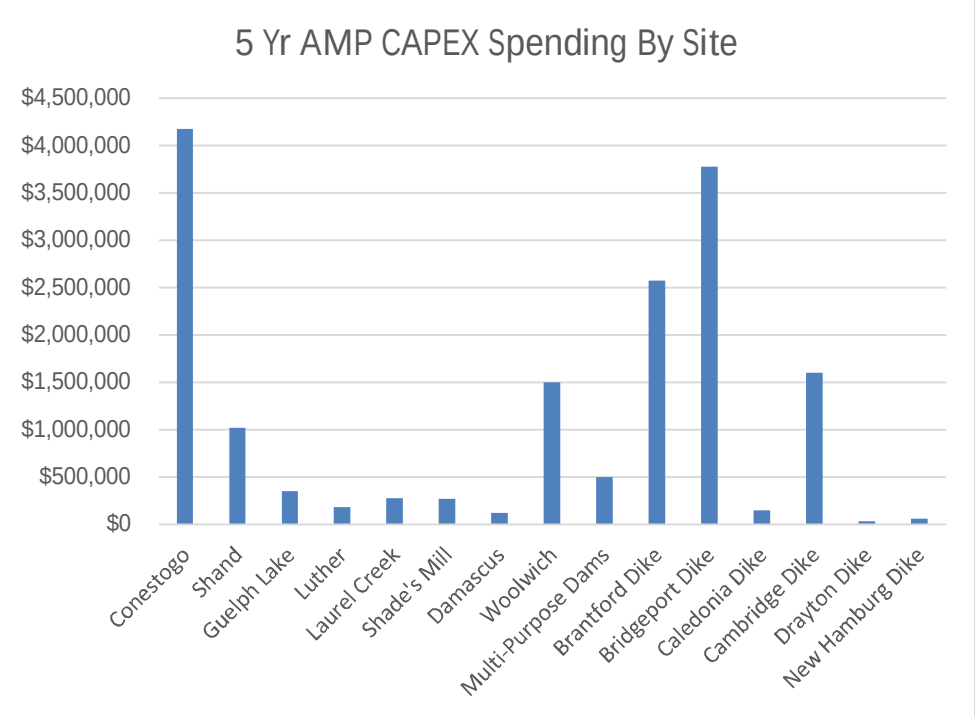

Figure 6-2: 5-Yr Asset Management Plan CAPEX Spending By Site

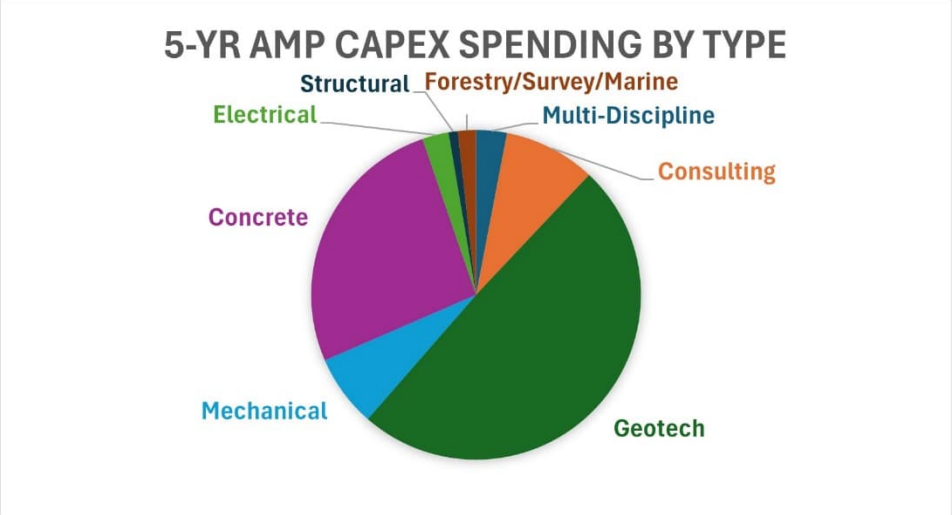

Figure 6-3: 5-Yr Asset Management Plan CAPEX Spending By Type

6.2 Longer-Term Budget Requirements (Years 6 to 20) - $14 Million

In the longer term, spending is less per year than near-term spending at a little less than $1 million per year. This is comparable to the 2019 to 2023 spending period. The total expected spending from years 6 to 20 is approximately $14 million, making the total expenditures for the 20-yr plan approximately $31 million.

The longer-term plan covers all sites, including small dam sites. Spending will be informed by dam and dike safety reviews plus ongoing condition assessments. However, there are unknown factors that may impact spending, such as “new” regulatory requirements and the evolving understanding of climate change impacts (which could lead to enhanced impacts from flooding or drought).

The spread of spending over the entire 20-yr time frame for this AMP is presented in Figure 6-4 below.

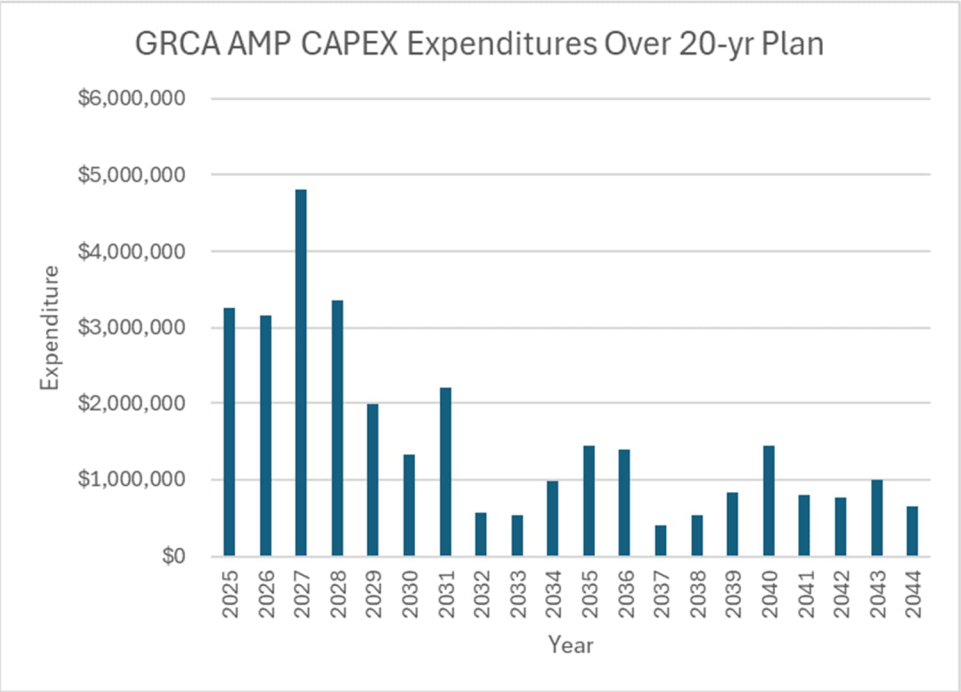

Figure 6-4: Asset Management Plan CAPEX Expenditures Over 20-Yr Plan

7. CAPEX and OPEX

7.1 OPEX Comparison to Similar Facilities

For the primary multi-purpose dams (seven sites), Hatch was provided operating costs which total approximately $1.5 million, or roughly $220,000 per site.

Operating costs in Hatch's database of dams comparable to GRCA's multi-purpose dams is about $250,000 per each site. However, sites in Hatch's database tend to be more remote in nature and larger in size, which can significantly impact operating costs.

Overall, given the condition found, the spending by GRCA on OPEX meets Hatch's expectations.

7.2 CAPEX Comparison to Similar Facilities

Hatch has analyzed public domain data on hydro facility spending (primarily from the Federal Energy Regulatory Commission in the United States) and plotted proposed spending for the seven GRCA multi-purpose dam sites assessed by Hatch against the overall dataset. The AMP forecasts approximately $900,000 per year for the seven multi-purpose dam sites, while the publicly available data (benchmark) suggests around $500,000 per year over the next 20 years[7].

The public domain data is only a guide and is dominated by sites much larger than GRCA's (where economies of scale are more favorable). Nonetheless, the benchmark exercise was a reasonableness check of the spending program in this AMP, and Hatch concludes that the spending amounts envisaged are reasonable and appropriate.

7.3 CAPEX and OPEX Combined Spending

For the seven multi-purpose dams, and assuming OPEX spending is maintained at current levels (in year 2024 dollars), the following is estimated spending as part of this AMP over the next 20 years:

- OPEX: approximately $30.0 million
- CAPEX: approximately $16.5 million.

OPEX is essential to asset management and is the dominant spending factor that has taken place historically. Amongst other things, operations staff are the first witnesses to maintenance requirements (or component breakage) at the sites. OPEX spending levels must be sustained to maintain the required Standard of Service.

[7] The database is in terms of dollars per megawatt per year, escalated to year 2024 dollars. For dam sites without power generation, Hatch assigned proxy values of generation to compare to the database. These proxy values were 0.05 MW for Luther, Laurel Creek and Shade's Mills; and 0.1 MW for Woolwich.

8. GRCA's Asset Renewal Procurement Strategy

This AMP does not speak to methods of funding for CAPEX. This report is intended to act as a technical report establishing the reasons for funding.

In general, funds for future spending will come from GRCA's historical sources such as revenue from power generation, levies, and grants from provincial agencies and municipal partners. Funding itself is beyond the scope of this report.

GRCA in the past outsourced the larger value CAPEX projects, including the definition phase studies. Minor works may be self-performed depending on availability of GRCA resources (staff, expertise and equipment).

From an execution point of view, projects go through a series of definition steps, and the exact definition of projects and their associated budgets may take several years to refine and finalize. Projects involving in-water work have higher levels of risk associated with them and must be planned accordingly. The definition is not just technical scope, but execution methods as well. Standard of Service must be maintained through construction and timing of projects is also a factor. There are seasonal productivity differences to consider plus restrictions due to crucial fish spawning periods. There is also planning around, and planning for, coincident floods which are not only in the spring, but can take place in summer (thunderstorms), fall (hurricane remnants), and mid-winter melts (meltwater runoff).

9. Recommendations

Recommendations for future AMPs, and facility renewal in general, have emerged during the preparation of this Plan, plus the Condition Assessment, PFMA study, and review of dikes reports:

- The hazard potential classifications of the multi-purpose dams are out of date and some pre-date the Ministry of Natural Resources and Forestry criteria established in the 2011 Lakes and Rivers Improvement Act Administrative Guide. Bringing this body of information up to date would be part of dam safety reviews, which is included in the Plan.
- Relatively little information was available on the condition of Drayton and Caledonia dikes, and this needs to be improved. Future budgeting for improvements to these dikes was made based on historical norms.
- The Plan itself, and in particular the project list, needs to be regularly updated and expanded as new information emerges, down to the component level (such as gates and embankment features) where possible to support planning and budgeting.
- With respect to the power generation feature of three multi-purpose dam sites (Conestogo, Shand and Guelph Lake), refurbishments to power generation components are not part of this AMP if these components do not provide water and erosion control functions. However, they provide revenues that may be considered part of GRCA's funding strategy, and to count on those revenues, their power generation service needs to be maintained. Individual cost/benefit analysis on the power generation assets will need to be made as part of future versions of the AMP.

Appendix A
Summary of Condition

Table A-1: GRCA - Matrix of Hatch-Reviewed Dam Assets - Structural/Geotechnical

Site	Left Embankment (Facing Downstream)	Right Embankment (Facing Downstream)	Other Embankment (Earth)	Spillway Single Sluice	Spillway Dual Sluices/ Outlets	Spillway - Multiple Sluices (Piers/ Walls)	Spillway Tunnel	Emergency Spillway/ Other Spillway	Powerhouse Structure	Gatehouse/ Generator House	Platforms/ Stairs/ Railings/ Deck
Conestogo	G	VG				P			VG	[G]	[G]
Shand	VG	VG				G			G		G
Guelph Lake	G	G	[G]			G		[G]	VG		G
Luther	VG	VG		G						G	G
Laurel Creek	G	G			G			VG		G	[G]
Shade's Mills	G	G			G		NR	G			VG
Damascus	G	G		VG			NR	G			VG
Woolwich	F	F				G				G	G

Legend: G = Good, VG = Very Good, F = Fair, P = Poor, E = Excellent.
[G] = described in Condition Assessment but grade not given, no concerns raised.
NR = not reported (but also no concerns raised).

Notes:
Laurel Creek - other spillway refers to flashboards.
Conestogo - Upstream poor, downstream good (upstream repairs is work in progress).
Budget set aside in Asset Management Plan.
Budget for Professional Services (Studies) set aside in Asset Management Plan.

Table A-2: GRCA - Matrix of Hatch-Reviewed Dam Assets - Mechanical

Site	Spillway Gates	Spillway Gate/Logs Overhead Hoist(s)	Spillway Logs	Service Logs/ Bulkheads and Lifting	Intake Gate	Intake Gate Hoist	Turbine	Turbine Inlet Valve	Turbine Governor	Outlet Valve(s)/ Gate	Emergency Diesel (Stationary)	Portable Diesel Generator	Sump/ Dewatering System	Balance-of-Plant Mechanical
Conestogo	G	G		F	G	VG	G	VG	G	P	G		F	VG
Shand	G			VP	VG		G	G	F	F	VG	VG	F	VG
Guelph Lake	G	G/F					F	G		F	VG		F	G
Luther		E	VG	F						F/VG	G			
Laurel Creek	F/E									G	G			
Shade's Mills	G									G	E			
Damascus		[G]	G							F				
Woolwich	VG	G		G						G	VG			

Legend: G = Good, VG = Very Good, VP = Very Poor, F = Fair, P = Poor, E = Excellent.
[G] = described in Condition Assessment but grade not given, no concerns raised.

Notes:
Guelph Lake - spillway + overflow gates.
Woolwich - regulating gates + discharge valve.
Conestogo - gates include bubbler (part of mechanical balance of plant).
Spillway Hoists (Conestogo, Guelph Lake), overhead wires on 7-yr replacement cycle at present.
Shand - gate side roller (refurbishment) in 2017, otherwise original.
Guelph Lake - generator is AC motor in reverse, frequent trips, belt issue.
Guelph Lake - glycol system part of mechanical balance of plant (used for gate guide and sill heating).
Luther/Shade's Mills - outdoor generator (no mechanical balance of plant associated as a result).
Luther regulating gate - fair, actuator - very good.
Laurel Creek - gate actuator is excellent (screw-stem lifting system, part of the gate which is fair for gate, and good for stem).
HVAC for diesel generator is included in mechanical balance of plant, along with heating services, and distribution of utilities, and service lifts (elevator).
Budget set aside in Asset Management Plan.
Budget for Professional Services (Studies) set aside in Asset Management Plan.

Table A-3: GRCA - Matrix of Hatch-Reviewed Dam Assets - Electrical

Site	Generator	Transformer/Switchgear/ Motor Control Center	Generator Protection and Control	AC Station Service and Distribution	Instrumentation/ Communications	Balance-of-Plant Electrical
Conestogo	G	G	E	[G]	[G]	[G]
Shand	G	G	E	[G]	[G]	[G]
Guelph Lake	G	G	E	[G]	[G]	[G]
Luther				NR	NR	NR
Laurel Creek				NR	NR	NR
Shade's Mills				G	G	G
Damascus						
Woolwich				G	G	G

Legend: G = Good, E = Excellent.
[G] = described in Condition Assessment but grade not given, no concerns raised.
NR = not reported in Condition Assessment, no concerns raised by review team.

Notes:
Shand has gate guide heaters, included in balance of plant.
Governors are reported in mechanical.
Budget set aside in Asset Management Plan.

Appendix B
Asset Management Plan Projects List

GRCA Asset Management Plan Project List

Version October 15, 2024

Plant	Trade	Asset	Project	Source (PFMA, CA, DSR, GRCA)	Calender Age (Years)	Present Condition	Expected Life (Years)	Remaining Life Unadjusted for Condition (Years)	Invest by (Maximum 2044)	Spend ($2024)	Source/Comment	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044
Conestogo	Consulting	Plant	Dam Safety Review	PFMA	69	na	na	na	2026	$150,000	internal services estimate	-	$150,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Conestogo	Geotech	Dam	Seepage Assess't (part of DSR)	PFMA	69	na	na	na	2026	$20,000	internal estimate	-	$20,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Conestogo	Consulting	Plant	Update Existing Drawings	PFMA	69	na	na	na	2028	$50,000	allowance, requires quanity review	-	-	-	$50,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Conestogo	Mechanical	Spillway Gates	Major Refurbishment	CA	69	Good	60	-9	2030	$400,000	allowance, mainly painting/repairs (recent work done)	-	-	-	-	-	$400,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Conestogo	Mechanical	Bubbler	Replace Air Blower	CA	na	Good	15	na	2030	$10,000	reflects small prime mover equipment scope	-	-	-	-	-	$10,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Conestogo	Mechanical	Spillway Hoist Cables	Replace (Maj Mtc)	CA	0	Good	7	7	2032	$25,000	general experience with similar scopes, including GRCA	-	-	-	-	-	-	-	$25,000	-	-	-	-	-	-	-	-	-	-	-	-
Conestogo	Mechanical	Spillway Hoist	Replace or Major Refurb	CA	69	Good	50	-19	2039	$150,000	GRCA and Hatch data similar projects	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$150,000	-	-	-	-	-
Conestogo	Mechanical	Intake Gate	Refurbishment	CA	69	Good	60	-9	2035	$80,000	cost varies based on ability to isolate gate for refurb.	-	-	-	-	-	-	-	-	-	-	$80,000	-	-	-	-	-	-	-	-	-
Conestogo	Mechanical	Stationary Diesel	Replace	CA	69	Good	40	-29	2030	$75,000	100kW, at 750/kW (general power experience)	-	-	-	-	-	$75,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Conestogo	Mechanical	Stop Logs	Major Refurbishment	CA	54	Fair	50	-4	2030	$120,000	Offsite blast/paint/refurb, ~$20/ft2 + truck/lifting	-	-	-	-	-	$120,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Conestogo	Mechanical	Draft Tube Valve	Refurbish	CA	18	Poor	50	32	2028	$50,000	Allowance, requires quick install because of service	-	-	-	$50,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Conestogo	Mechanical	Sump Pumps	Replace	CA	69	Fair	60	-9	2028	$100,000	Pumps and new mounting, sump maintenance, electrics	-	-	-	$100,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Conestogo	Concrete	Spillway (Upstream)	Concrete Repairs	CA	69	Poor	100	na	2025	$1,700,000	Next phase work (Phase 1 done for < $1.8M)	$1,700,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Conestogo	Concrete	Spillway (Upstream)	Concrete Repairs	CA	69	Poor	100	na	2026	$100,000	Next phase work (Phase 1 done for < $1.8M)	-	$100,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Conestogo	Concrete	Spillway (Downstream)	Concrete Repairs	CA	69	Poor	100	na	2026	$1,000,000	GRCA/Consultant Estimate	-	$1,000,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Conestogo	Concrete	Spillway (Downstream)	Concrete Repairs	CA	69	Poor	100	na	2027	$1,000,000	GRCA/Consultant Estimate	-	-	$1,000,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Conestogo	Electrical	Balance of Plant	Replace as Needed	CA	varies	Good	na	na	2034	$30,000	Follows general electrical spend, GRCA data	-	-	-	-	-	-	-	-	-	$30,000	-	-	-	-	-	-	-	-	-	-
Shand	Consulting	Plant	Dam Safety Review	PFMA	84	na	na	na	2025	$150,000	internal services estimate	$150,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shand	Mechanical	Spillway Gates	Gate Travel Testing	PFMA	na	na	na	na	2025	$40,000	internal services estimate	$40,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shand	Concrete	Stop Logs Slots	Gain Repairs	CA	varies	na	na	na	2025	$150,000	Allowance (in water work), currently out for tender	$150,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shand	Electrical	Plant	Warning Lights	CA	new	na	na	na	2027	$30,000	Packaged lighting product, small electrial addition	-	-	$30,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shand	Mechanical	Discharge Valves	Major Refurbishment	CA	varies	Good	na	na	2028	$150,000	Allowance, requires quick install because of service	-	-	-	$150,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shand	Mechanical	Sump Pumps	Replace	CA	na	Fair	60	na	2028	$100,000	Pumps and new mounting, sump maintenance, electrics	-	-	-	$100,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shand	Concrete	Spillway Pier Nose	Repair	CA	84	Fair	100	na	2028	$300,000	Allowance, work over water adds to cost	-	-	-	$300,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shand	Concrete	Spillway Misc. Maintenance	Repair	CA	84	Good	100	na	2035	$500,000	Allowance, upstream work requires water controls	-	-	-	-	-	-	-	-	-	-	$500,000	-	-	-	-	-	-	-	-	-
Shand	Electrical	Balance of Plant	Replace as Needed	CA	varies	Good	na	na	2033	$30,000	Follows general electrical spend, GRCA data	-	-	-	-	-	-	-	-	$30,000	-	-	-	-	-	-	-	-	-	-	-
Shand	Concrete	Wing Wall Repairs	Repair	CA	84	Fair	na	na	2028	$100,000	Allowance, work over water adds to cost	-	-	-	$100,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Guelph Lake	Consulting	Plant	Dam Safety Review	PFMA	49	na	na	na	2028	$150,000	internal services estimate	-	-	-	$150,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Guelph Lake	Marine	Spillway	Underwater Inspections	PFMA	49	na	na	na	2029	$30,000	Estimate for dive service, inspection videos	-	-	-	-	$30,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Guelph Lake	Forestry	Emergency Spillway	Brushing	CA	49	na	na	na	2027	$40,000	Cost based on extensive brushing done, another site	-	-	$40,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Guelph Lake	Concrete	Spillway	Major Maintenance	CA	49	Good	100	51	2040	$400,000	Allowance, upstream work requires water controls	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$400,000	-	-	-	-
Guelph Lake	Mechanical	Spillway Hoist Wire	Replace (Maj Mtc)	CA	0	Good	7	7	2032	$25,000	general experience with similar scopes, including GRCA	-	-	-	-	-	-	-	$25,000	-	-	-	-	-	-	-	-	-	-	-	-
Guelph Lake	Mechanical	Spillway Hoist	Replace	CA	49	Good	50	1	2039	$150,000	GRCA and Hatch data similar projects	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$150,000	-	-	-	-	-
Guelph Lake	Mechanical	Overflow Gate Hoist	Replace	CA	32	Fair	50	18	2039	$80,000	Allowance, based on capacity and similar projects	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$80,000	-	-	-	-	-
Guelph Lake	Mechanical	Sump Pumps	Replace	CA	49	Fair	60	11	2028	$100,000	Pumps and new mounting, sump maintenance, electrics	-	-	-	$100,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Guelph Lake	Electrical	Balance of Plant	Replace as Needed	CA	varies	na	na	na	2035	$30,000	Follows general electrical spend, GRCA data	-	-	-	-	-	-	-	-	-	-	$30,000	-	-	-	-	-	-	-	-	-
Guelph Lake	Mechanical	Draft Tube Valve	Replace	CA	43	Fair	50	7	2026	$30,000	Small valve in tight location, brownfield inefficiencies	-	$30,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Guelph Lake	Mechanical	Turbine Generator	Major Refurbishment	CA	42	Fair	60	18	2042	$100,000	"Micro" hydro in size, budget at 50% of new ($2500/kW)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$100,000	-	-
Guelph Lake	Mechanical	Domestic Water	Major Refurbishment	CA	49	Good	60	11	2030	$20,000	Allowance, relatively small equipment collection	-	-	-	-	-	$20,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Guelph Lake	Mechanical	HVAC Upgrades	Major Refurbishment	CA	49	Good	50	1	2030	$20,000	Allowance, relatively small equipment collection	-	-	-	-	-	$20,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Luther	Consulting	Plant	Dam Safety Review	PFMA	na	na	na	na	2028	$80,000	internal services estimate	-	-	-	$80,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Luther	Marine	Reservoir	Add Debris/Safety Boom	PFMA	new	na	na	na	2027	$100,000	allowance, extensive marine work	-	-	$100,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Luther	Survey	Major Structures	Survey	PFMA	na	na	na	na	2027	$5,000	land surveyor crew, 1-2 days	-	-	$5,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Luther	Mechanical	Regulating Gate	Major Refurbishment	CA	33	Fair	60	27	2038	$40,000	Small gate but submerged. Fair rating inpacts timing	-	-	-	-	-	-	-	-	-	-	-	-	$40,000	-	-	-	-	-	-	-
Luther	Mechanical	Service Stop Logs	Partial Replacement	CA	33	Fair	50	17	2034	$40,000	Collection of wooden timbers (cut/trim/transport)	-	-	-	-	-	-	-	-	-	$40,000	-	-	-	-	-	-	-	-	-	-
Luther	Electrical	Balance of Plant	Replace as Needed	CA	varies	Good	na	na	2035	$15,000	Follows general electrical spend, GRCA data	-	-	-	-	-	-	-	-	-	-	$15,000	-	-	-	-	-	-	-	-	-
Laurel Creek	Consulting	Plant	Dam Safety Review	PFMA	na	na	na	na	2025	$80,000	internal services estimate	$80,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Laurel Creek	Structural	Plant	Improve Access to Disch Valve	CA	new	na	na	na	2029	$50,000	Civil/structual scope mainly, layout constrained	-	-	-	-	$50,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Laurel Creek	Mechanical	Discharge Valve	Replace	CA	57	Fair	50	-7	2029	$30,000	Allowance, requires quick install because of service	-	-	-	-	$30,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Laurel Creek	Mechanical	Spillway Gates	Refurbish	CA	57	Fair	60	3	2029	$120,000	Painting and minor repairs	-	-	-	-	$120,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Laurel Creek	Electrical	Balance of Plant	Replace as Needed	CA	varies	Good	na	na	2035	$15,000	Follows general electrical spend, GRCA data	-	-	-	-	-	-	-	-	-	-	$15,000	-	-	-	-	-	-	-	-	-
Shade's Mill	Consulting	Plant	Dam Safety Review	PFMA	na	na	na	na	2026	$80,000	internal services estimate	-	$80,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shade's Mill	Marine	Reservoir	Reservoir Gauges	PFMA	new	na	na	na	2027	$40,000	Gauges and communications package	-	-	$40,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shade's Mill	Concrete	Spillway and Culvert	Misc Maintenance	CA	56	Good	100	44	2040	$150,000	General concrete repairs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$150,000	-	-	-	-
Shade's Mill	Mechanical	Spillway Gates / Actuator	Refurbish	CA	56	Good	60	4	2029	$50,000	Painting and minor repairs (similar scope as Laurel Cr)	-	-	-	-	$50,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shade's Mill	Mechanical	Discharge Valve	Refurbish	CA	56	Good	50	-6	2030	$20,000	Allowance	-	-	-	-	-	$20,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shade's Mill	Electrical	Balance of Plant	Replace as Needed	CA	varies	Good	na	na	2034	$15,000	Follows general electrical spend, GRCA data	-	-	-	-	-	-	-	-	-	$15,000	-	-	-	-	-	-	-	-	-	-
Shade's Mill	Structural	Concrete Guard Rails	Repair	CA	56	Fair	na	na	2029	$100,000	Patch Repair	-	-	-	-	$100,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Damascus	Consulting	Plant	Dam Safety Review	PFMA	na	na	na	na	2028	$80,000	internal services estimate	-	-	-	$80,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Damascus	Mechanical	Plant	Log Sizing Study	PFMA	na	na	na	na	2025	$10,000	internal services estimate, part of broader scope	$10,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Damascus	Mechanical	Discharge Valve	Replace or Refurbish	CA	44	Fair	50	6	2029	$30,000	Allowance, requires quick install because of service	-	-	-	-	$30,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Damascus	Mechanical	Discharge Structure	Maintenance (Paint)	CA	44	na	na	na	2030	$30,000	Allowance, $$ influenced by work over/in water.	-	-	-	-	-	$30,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Damascus	Geotech	Embankments	Piezometers	PFMA	new	na	na	na	2030	$50,000	Allowance	-	-	-	-	-	$50,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Damascus	Electrical	Reservoir	Remote Monitoring	PFMA	new	na	na	na	2030	$40,000	Communications package with power supply	-	-	-	-	-	$40,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Woolwich	Consulting	Plant	Dam Safety Review	PFMA	na	na	na	na	2027	$150,000	internal services estimate	-	-	$150,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Woolwich	Geotech	Dam	Settlement Assessment (Update)	PFMA	na	na	na	na	2027	$20,000	internal services estimate, part of broader scope	-	-	$20,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Woolwich	Geotech	Dam	Cleaning Dam Drainage	PFMA	na	na	na	na	2027	$50,000	Allowance	-	-	$50,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Woolwich	Electrical	Plant	Update Automatic Response	PFMA	varies	na	na	na	2025	$100,000	Broad package of instruments and PLC, electrics	$100,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Woolwich	Mechanical	Spillway Gate Hoist Wire	Replace (Maj Mtc)	CA	0	Good	7	7	2032	$25,000	general experience with similar scopes, including GRCA	-	-	-	-	-	-	-	$25,000	-	-	-	-	-	-	-	-	-	-	-	-
Woolwich	Mechanical	Spillway Gate Hoists	Refurbish	CA	52	Good	50	-2	2042	$160,000	GRCA and Hatch data similar projects	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$160,000	-	-
Woolwich	Mechanical	Spillway Gates	Major Maintenance	CA	52	V. Good	60	8	2040	$200,000	Painting and repairs similar to recent work done	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$200,000	-	-	-	-
Woolwich	Mechanical	Stop Logs	Replace	CA	unknwn	Good	na	na	2034	$15,000	Timber logs	-	-	-	-	-	-	-	-	-	$15,000	-	-	-	-	-	-	-	-	-	-
Woolwich	Mechanical	Regulating Gate	Refurbish	CA	52	Good	60	8	2027	$80,000	Allowance, requires quick install because of service	-	-	$80,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Woolwich	Electrical	Balance of Plant	Replace as Needed	CA	varies	Good	na	na	2034	$30,000	Follows general electrical spend, GRCA data	-	-	-	-	-	-	-	-	-	$30,000	-	-	-	-	-	-	-	-	-	-
Woolwich	Concrete	Downstream Spillway	Major Maintenance	CA	52	Good	na	na	2030	$300,000	Allowance for concrete work and minor water control	-	-	-	-	-	$300,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Woolwich	Electrical	Plant	New Electrical Feed (OH to UG)	CA	new	na	na	na	2025	$300,000	linework package, GRCA estimate	$300,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Woolwich	Geotech	Embankments	Major Maintenance	CA	52	Fair	na	na	2028	$800,000	Cost allowance from similar embankment work	-	-	-	$800,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Multi-Purpose Dams	All	All	Upgrades	DSR	na	na	100	na	2029	$500,000	Allowance for DSR Findings High Criticality	-	-	-	-	$500,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Multi-Purpose Dams	All	All	Upgrades	DSR	na	na	100	na	2031	$800,000	Allowance for DSR Findings High Criticality	-	-	-	-	-	-	$800,000	-	-	-	-	-	-	-	-	-	-	-	-	-
Multi-Purpose Dams	All	All	Upgrades	DSR	na	na	100	na	2033	$500,000	Allowance for DSR Findings Medium Criticality	-	-	-	-	-	-	-	-	$500,000	-	-	-	-	-	-	-	-	-	-	-
Multi-Purpose Dams	All	All	Upgrades	DSR	na	na	100	na	2039	$300,000	Allowance for DSR Findings Low Criticality	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$300,000	-	-	-	-	-
Multi-Purpose Dams	Concrete	Spillways/Dams	Major Maintenance	CA	na	na	100	na	2031	$800,000	Concrete Repairs (Dams and Spillways)	-	-	-	-	-	-	$800,000	-	-	-	-	-	-	-	-	-	-	-	-	-

GRCA Asset Management Plan Project List

Version October 15, 2024

Plant	Trade	Asset	Project	Source (PFMA, CA, DSR, GRCA)	Calender Age (Years)	Present Condition	Expected Life (Years)	Remaining Life Unadjusted for Condition (Years)	Invest by (Maximum 2044)	Spend ($2024)	Source/Comment	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044
Multi-Purpose Dams	Concrete	Spillways/Dams	Major Maintenance	CA	na	na	100	na	2035	$800,000	Concrete Repairs (Dams and Spillways)	-	-	-	-	-	-	-	-	-	-	$800,000	-	-	-	-	-	-	-	-	-
Multi-Purpose Dams	Concrete	Spillways/Dams	Major Maintenance	CA	na	na	100	na	2041	$800,000	Concrete Repairs (Dams and Spillways)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$800,000	-	-	-
Multi-Purpose Dams	Concrete	Spillways/Dams	Major Maintenance	CA	na	na	100	na	2043	$800,000	Concrete Repairs (Dams and Spillways)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$800,000	-
Multi-Purpose Dams	Geotech	Spillways/Dams	Major Maintenance	CA	na	na	100	na	2036	$300,000	Repairs Allowance (Erosion from Ice/Storm Events)	-	-	-	-	-	-	-	-	-	-	-	$300,000	-	-	-	-	-	-	-	-
Multi-Purpose Dams	Mechanical	Gates, Valves, Stoplogs	Major Maintenance	CA	na	na	100	na	2034	$200,000	Gate replacements and major repairs, hoists	-	-	-	-	-	-	-	-	-	$200,000	-	-	-	-	-	-	-	-	-	-
Multi-Purpose Dams	Mechanical	Gates, Valves, Stoplogs	Major Maintenance	CA	na	na	100	na	2037	$200,000	Gate replacements and major repairs, hoists	-	-	-	-	-	-	-	-	-	-	-	-	$200,000	-	-	-	-	-	-	-
Multi-Purpose Dams	Mechanical	Gates, Valves, Stoplogs	Major Maintenance	CA	na	na	100	na	2040	$200,000	Gate replacements and major repairs, hoists	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$200,000	-	-	-	-
Multi-Purpose Dams	Mechanical	Gates, Valves, Stoplogs	Major Maintenance	CA	na	na	100	na	2043	$200,000	Gate replacements and major repairs, hoists	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$200,000	-
Multi-Purpose Dams	Electrical	All	Major Maintenance	CA	na	na	100	na	2034	$150,000	Improvements to power supplies and controls	-	-	-	-	-	-	-	-	-	$150,000	-	-	-	-	-	-	-	-	-	-
Multi-Purpose Dams	Electrical	All	Major Maintenance	CA	na	na	100	na	2039	$150,000	Improvements to power supplies and controls	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$150,000	-	-	-	-	-
Multi-Purpose Dams	Electrical	All	Major Maintenance	CA	na	na	100	na	2044	$150,000	Improvements to power supplies and controls	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$150,000
Multi-Purpose Dams	All	All	Major Maintenance	CA	na	na	100	na	2037	$200,000	Balance of Plant Misc Repairs (All Trades)	-	-	-	-	-	-	-	-	-	-	-	-	$200,000	-	-	-	-	-	-	-
Brantford Dike	Consulting	Dike Structure	Dike Safety Study	GRCA	40	Fair	100	na	2025	$150,000	GRCA Estimate	$150,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brantford Dike	Consulting	Dike Structure	Dike Safety Study	GRCA	40	Fair	100	na	2026	$100,000	GRCA Estimate	-	$100,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brantford Dike	Geotech	Dike Structure	Embankment Repairs	GRCA	40	Fair	100	na	2026	$500,000	GRCA Estimate	-	$500,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brantford Dike	Geotech	Dike Structure	Embankment Repairs	GRCA	40	Fair	100	na	2027	$1,000,000	GRCA Estimate	-	-	$1,000,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brantford Dike	Geotech	Dike Structure	Embankment Repairs	GRCA	40	Fair	100	na	2028	$250,000	GRCA Estimate	-	-	-	$250,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brantford Dike	Forestry	Dike Structure	Brushing	GRCA	40	Fair	100	na	2025	$20,000	GRCA Estimate	$20,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brantford Dike	Geotech	Birkett Triangle Landfill	Major Maintenance	GRCA	40	Fair	100	na	2026	$50,000	GRCA Estimate	-	$50,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brantford Dike	Geotech	Birkett Triangle Landfill	Major Maintenance	GRCA	40	Fair	100	na	2027	$300,000	GRCA Estimate	-	-	$300,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brantford Dike	Geotech	Birkett Triangle Landfill	Major Maintenance	GRCA	40	Fair	100	na	2028	$200,000	GRCA Estimate	-	-	-	$200,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bridgeport Dike	Consulting	Dike Structure	Dike Safety Study	GRCA	44	Fair	100	na	2025	$175,000	GRCA Estimate	$175,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bridgeport Dike	Geotech	Dike Structure	Embankment Repairs	GRCA	44	Fair	100	na	2025	$100,000	GRCA Estimate	$100,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bridgeport Dike	Geotech	Dike Structure	Embankment Repairs	GRCA	44	Fair	100	na	2026	$1,000,000	GRCA Estimate	-	$1,000,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bridgeport Dike	Geotech	Dike Structure	Embankment Repairs	GRCA	44	Fair	100	na	2027	$2,000,000	GRCA Estimate	-	-	$2,000,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bridgeport Dike	Geotech	Dike Structure	Embankment Repairs	GRCA	44	Fair	100	na	2028	$500,000	GRCA Estimate	-	-	-	$500,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Caledonia Dike	Geotech	Dike Structure	Erosion Repairs	GRCA	na	na	100	na	2028	$150,000	GRCA Estimate	-	-	-	$150,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cambridge Dike	Consulting	Dike Mechanicals	Pump Room/Bridge Closures	GRCA	45	Good-Fair	100	na	2029	$30,000	GRCA Estimate	-	-	-	-	$30,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cambridge Dike	Geotech	Dike Structure	Repair Floodwall (West)	GRCA	45	Good-Fair	100	na	2025	$250,000	GRCA Estimate	$250,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cambridge Dike	Mechanical	Dike Mechanicals	Pump Room/Bridge Closures	GRCA	45	Good-Fair	100	na	2029	$250,000	GRCA Estimate	-	-	-	-	$250,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cambridge Dike	Mechanical	Dike Mechanicals	Pump Room/Bridge Closures	GRCA	45	Good-Fair	100	na	2030	$250,000	GRCA Estimate	-	-	-	-	-	$250,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cambridge Dike	Consulting	Dike Structure	East Bank Floodwall (Design)	GRCA	45	Good-Fair	100	na	2026	$70,000	GRCA Estimate	-	$70,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cambridge Dike	Geotech	Dike Structure	East Bank Floodwall (Implem't)	GRCA	45	Good-Fair	100	na	2029	$800,000	GRCA Estimate	-	-	-	-	$800,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cambridge Dike	Geotech	Dike Structure	East Bank Floodwall (Implem't)	GRCA	45	Good-Fair	100	na	2028	$200,000	GRCA Estimate	-	-	-	$200,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Drayton Dike	Mechanical	Dike Mechanicals	Rubber Backflow Check V/V's	GRCA	na	na	100	na	2026	$35,000	GRCA Estimate	-	$35,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Drayton Dike	Geotech	Dike Structure	Embankment/Floodwall Repair	CA	na	na	100	na	2036	$600,000	Repairs Allowance (Erosion from Ice/Storm Events)	-	-	-	-	-	-	-	-	-	-	-	$600,000	-	-	-	-	-	-	-	-
New Hamburg Dike	Forestry	Dike Structure	Brushing	GRCA	54	Fair	100	na	2025	$30,000	GRCA Estimate	$30,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Hamburg Dike	Forestry	Dike Structure	Brushing	GRCA	54	Fair	100	na	2026	$30,000	GRCA Estimate	-	$30,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Hamburg Dike	Geotech	Dike Structure	Slope Improvement	CA	54	Fair	100	na	2031	$600,000	Repairs Allowance (Erosion from Ice/Storm Events)	-	-	-	-	-	-	$600,000	-	-	-	-	-	-	-	-	-	-	-	-	-
Dikes (General)	All	All	Upgrades	DSR	na	na	100	na	2032	$500,000	Allowance for Misc Repairs and Performance Upgrades	-	-	-	-	-	-	-	$500,000	-	-	-	-	-	-	-	-	-	-	-	-
Dikes (General)	All	All	Upgrades	DSR	na	na	100	na	2034	$500,000	Allowance for Misc Repairs and Performance Upgrades	-	-	-	-	-	-	-	-	-	$500,000	-	-	-	-	-	-	-	-	-	-
Dikes (General)	All	All	Upgrades	DSR	na	na	100	na	2036	$500,000	Allowance for Misc Repairs and Performance Upgrades	-	-	-	-	-	-	-	-	-	-	-	$500,000	-	-	-	-	-	-	-	-
Dikes (General)	All	All	Upgrades	DSR	na	na	100	na	2038	$500,000	Allowance for Misc Repairs and Performance Upgrades	-	-	-	-	-	-	-	-	-	-	-	-	-	$500,000	-	-	-	-	-	-
Dikes (General)	All	All	Upgrades	DSR	na	na	100	na	2040	$500,000	Allowance for Misc Repairs and Performance Upgrades	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$500,000	-	-	-	-
Dikes (General)	All	All	Upgrades	DSR	na	na	100	na	2042	$500,000	Allowance for Misc Repairs and Performance Upgrades	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$500,000	-	-
Dikes (General)	All	All	Upgrades	DSR	na	na	100	na	2044	$500,000	Allowance for Misc Repairs and Performance Upgrades	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$500,000
											Total by Year -->	$3,255,000	$3,165,000	$4,815,000	$3,360,000	$1,990,000	$1,335,000	$2,200,000	$575,000	$530,000	$980,000	$1,440,000	$1,400,000	$400,000	$540,000	$830,000	$1,450,000	$800,000	$760,000	$1,000,000	$650,000

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Grand River Conservation Authority

Report number: GM- 10- 24- 95

Date: October 25, 2024

To: Members of the Grand River Conservation Authority

Subject: Shand Dam Spillway Stoplog Gains Refurbishment – Tender Award

Recommendation:

THAT the Grand River Conservation Authority award the contract for the Shand Dam Spillway Stoplog Gains Refurbishment to BGL Contractors Corp for the amount of $555,860.00 dollars (excluding HST);

AND THAT a contingency of 10 percent be included in the overall project budget for a total project budget of $611,446.00 (excluding HST).

Summary:

A public Tender for the Shand Dam Spillway Stoplog Gains Refurbishment was posted publicly on Biddingo on Monday September 16, 2024. The GRCA received three (3) tender packages prior to the bid closing on Wednesday October 9, 2024, and recommends award of the tender to B G L Contractors Corp. The B G L Contractors Corp. tender package met all the submission requirements.

Report:

The G R C A manages a large portfolio of water control structures. Annual inspections are performed at the structures and repair work is identified, then planned and prioritized as part of the 5 year budget forecasts. Inspections have identified the need for upcoming remedial work on the gates at Shand Dam. Hatch Limited has carried out design and specifications for refurbishment of the isolation stoplog gains on behalf of the G R C A. This project will carry out fabrication and supply of the stoplogs. The gate sluices were constructed with isolation stop log gains, however the stoplogs were never supplied with the original construction of Shand Dam. The existing isolation stoplog gains have been inspected by Hatch L t d. And determined to be in poor and inoperable condition. Refurbishment of the isolation stoplog gains is required in order to install the isolation stoplogs to perform future gate maintenance work. The operations regime for the reservoir has been changed over the years and the reservoir is no longer drained down to allow work on the gate components. The currently identified need for use of the isolation stoplogs include gate recoating and refurbishing of seized rollers and worn roller path on the gates. A previous project to fabricate one set of seven (7) metal stop logs to fully isolate one of the four (4) dam sluices will be completed in 2024. The logs will be transferrable to all bays and allow for isolation to partial height to allow for work on more than one bay at a time. A separate project will be carried out for the construction of a storage facility for the new isolation stoplogs.

A Public Tender for refurbishment of the existing isolation stoplog gains was posted publicly on Biddingo on Monday September 16, 2024. A total of 34 companies picked up the digital tender documents. Three bid packages were received and were opened following tender closing on Wednesday October 9, 2024, at 3:00 pm at the GRCA Administration Office. The Tender Opening Committee consisted of the Manager of Water Infrastructure, Manager of Corporate Services, Infrastructure Engineer, Water Structures Maintenance Supervisor and Project Engineering Consultant bracket (Hatch) bracket.

Table 1 – Tender Summary

Contractor	Amount (Excluding HST)
Bronte Construction	$774,400.00
BGL Contractors Corp	$555,860.00
HugoMB Contracting Inc.	$981,035.00

The tender documents were reviewed by G R C A and Hatch Limited and meet all submission requirements. The project schedule is constrained due to the requirement to complete the work with the reservoir water level lower than the gate sill, which is lower than the normal winter operating level. The proposed bid cost will be covered within the existing project budget, with 50 percent funding approved through the provincial Water and Erosion Control Infrastructure (W E C I) program. The award of the project is recommended to go to B G L Contractors Corp. as the lowest bid and as meeting all requirements, representing best value to G R C A.

Financial Implications:

The funding for this project has been included in the Water Control Structures maintenance budgets and 50 percent grant funding has been received under the provincial Water and Erosion Control Infrastructure (W E C I) program. The remaining 50 percent of the project cost will be funded from the Land Sale Reserves.

Other department considerations:

Not applicable.

Prepared by:

Katelyn Lynch, P.Eng
Manager of Water Infrastructure

Approved by:

Samantha Lawson
Chief Administrative Officer

Grand River Conservation Authority

Report number: GM–10-24-97

Date: October 25, 2024

To: Members of the Grand River Conservation Authority

Subject: Membership, Ticketing, and Equipment Rentals System – Request for Proposals

Recommendation:

THAT the Grand River Conservation Authority enter into an agreement for a Membership and Ticketing System Solution with ParkPass Inc. based in Toronto, Ontario for a term of three years with an option to extend the agreement up to three additional one-year terms;

AND THAT a total budget of $215,000 excluding HST be approved.

Summary:

The GRCA investigated systems that could process membership card sales and ticket sales. The current membership card sales system uses an in-house developed solution. A ticketing system is currently being using on a limited basis using in-house developed applications. Staff are recommending purchasing a system with increased functionality that would also facilitate less involvement by GRCA Information systems staff.

Report:

The Grand River Conservation Authority's Elora Gorge Conservation Area Tubing and Elora Quarry Conservation Area recreational activities currently require the purchase of an advanced entry ticket sold exclusively online. For the past several years these tickets have been sold through a Grand River Conservation Area (GRCA) branded Shopify store with inventory managed through the MyPOS Point-Of-Sale (POS) system. The GRCA's Memberships are currently sold both online and at Conservation Areas using a separate GRCA-branded Shopify store and through the Clover POS system. While these in-house solutions have been streamlined for the sale of tickets and Memberships and work well, they are disparate and require ongoing development and staffing resources to keep the system operational. In addition, there are limitations to allow for the expansion of additional ticketing options such as for canoe rentals, or advanced entry tickets at other Conservation Area locations, including automated gate entry access.

For Memberships, a new card and sticker is required each year, with no option for auto-renewal and reuse of the same physical card or the ability to use a digital Membership pass on a smartphone. This results in excessive staff time manually fulfilling orders, issuing and auditing stickers (which are considered financial instruments), and high courier costs incurred to get the Membership card to the customer in a timely manner.

With recent staff changes, there is a gap in the specialized in-house skills needed to further develop and maintain the current Membership and Ticketing systems in place. The onboarding or training of staff to maintain and manage the existing systems, or further develop and expand upon them, is not economically practical or feasible when compared to outsourcing these systems to an outside vendor. It has become clear that, while the current in-house tools have served the GRCA well, they have reached their limitation in meeting customer expectations, improving the customer experience, and managing capacity levels in the Conservation Areas during the busy summer season. This approach to outsource the Membership and Ticketing

solution is consistent with the approach taken to facilitate campsite reservations using another third-party vendor.

In 2023, work was done internally to identify the current and future requirements of a Membership and Ticketing system, and a Request for Pre-Qualification (RFPQ) for a Membership and Ticketing System Solution was posted to Biddingo on February 8, 2024. From the RFPQ Responses, four (4) candidates were identified to meet GRCA's requirements based on their submission, including a mandatory requirement to integrate with GRCA's Clover Payment System ecosphere. These four candidates were subsequently invited to respond to the Membership and Ticketing System Solution Request for Proposals (RFP) which was posted to Biddingo on July 30, 2024. All four candidates submitted Responses to this RFP prior to the closing date of August 24, 2024.

The RFPs were evaluated using the following criteria and related weighting:

- Vendor qualifications and ability to meet functional requirements – 25%
- Relevant company experience and reputation (including past GRCA experience with the proponent) – 10%
- References – 10%
- Quality and Completeness of RFP Submission – 5%
- Cost (weighted as a percentage of lowest fee proposal) – 50%

ParkPass scored the highest in the evaluation. Staff recommend that GRCA enter into an agreement with ParkPass to provide a membership and ticketing system. The contract will include the base license fee for the Membership, Ticketing, and Equipment Rental modules, fees for configuration and setup of the solution, relevant hardware integrations, training, custom reporting, and integration with a third-party online waiver solution.

Financial Implications:

The costs associated with the Membership and Ticketing solution have been included in the current Conservation Area Operations budget for 2025. Fees will be reevaluated in subsequent years to possibly establish a separate service fee per transaction, not unlike the reservation fee with the campsite reservation system which is used in part to pay the third-party vendor for their services.

Other Department Considerations:

Staff from Conservation Area Operations, Information Technology, and Corporate Services participated in the RFP process.

Prepared by:

Murray Lister
Manager of Digital Information & Innovation

Approved by:

Karen Armstrong
Deputy CAO/ Secretary Treasurer

Grand River Conservation Authority

Report number: GM-10-24-92

Date: October 25, 2024

To: Members of the Grand River Conservation Authority

Subject: Cash and Investment Status – September 2024

Recommendation:

THAT Report Number GM-10-24-92 – Cash and Investment Status – September 2024 be received as information.

Summary:

The cash position including Notes Receivable of the Grand River Conservation Authority as at Sep 30, 2024 was $66,254,471 with outstanding cheques written in the amount of $ 88,872.

Report:

See attached.

Financial Implications

Interest rates, etc. are shown on the report.

Other Department Considerations:

Not applicable.

Prepared by:

Racha Ibrahim
Senior Accountant

Sonja Radoja
Manager of Corporate Services

Approved by:

Karen Armstrong
Deputy CAO/Secretary Treasurer

Grand River Conservation Authority
Cash and Investments Status Report
Sep 30,2024

BANK ACCOUNTS	Location	Type	Amount	Interest Rate
	CIBC	Current Account	16,119,634	4.90%
	RBC	Current Account	364,236	nil
	Wood Gundy	Current Account	0	nil
	CIBC - SPP Holding	Current Account	376,432	4.90%
	TOTAL CASH - CURRENT ACCOUNT		**16,860,302**	

INVESTMENT	Date Invested	Location	Type	Amount	Face Value Interest Rate	Yield Rate	Date of Maturity	2024 Total Interest Earned/ Accrued
		CIBC Renaissance	High Interest Savings Account	7,976,300	4.55%	4.55%	not applicable	588,435
		CIBC High Interest	High Interest Savings Account	2,277,147	4.55%	4.55%	not applicable	226,046
		One Investment Savings	High Interest Savings Account	4,840,722	4.965%	4.965%	not applicable	410,180
	September 23, 2021	Province of Ontario	Bond	2,300,000	1.230%	1.23%	December 2, 2026	27,156
	September 23, 2021	ManuLife Financial	Bond	2,000,000	2.237%	1.34%	May 12, 2030, call date 2025	37,326
	December 14, 2022	CIBC	Bond	4,100,000	3.300%	4.36%	May 26, 2025	96,320
	December 7, 2023	National Bank	Non-Redeemable GIC	2,000,000	4.700%	4.70%	December 7,2026	94,000
	December 21,2023	CIBC Trust Corp	Non-Redeemable GIC	2,000,000	4.450%	4.45%	December 22, 2025	89,000
	March 6,2024	Laurenian Bank of Canada	GTD Investment Certificate	1,000,000	5.20%	5.20%	March 6,2025	51,572
	March 6,2024	National Bank of Canada	GTD Investment Certificate	1,000,000	5.00%	5.00%	March 6,2025	50,000
	March 6,2024	HSBC Bank of Canada	GTD Investment Certificate	1,000,000	4.80%	4.80%	March 6,2026	96,000
	March 6,2024	National Bank of Canada	GTD Investment Certificate	1,000,000	4.70%	4.70%	March 6,2026	94,000
	June 27,2024	CIBC	GTD Investment Certificate	4,000,000	4.80%	4.80%	June 30/2025	192,000
	June 27,2024	Laurenian Bank of Canada	GTD Investment Certificate	3,200,000	4.43%	4.43%	June 28/2027	425,280
	September 5,2024	Manulife Trust Co	GTD Investment Certificate	3,000,000	3.810%	3.81%	September 7, 2027	42,745
	September 5,2024	Manulife Trust Co	GTD Investment Certificate	3,500,000	3.810%	3.81%	September 7, 2027	36,638
	September 10,2024	National Trust Company	GTD Investment Certificate	2,100,000	3.750%	3.75%	September 11, 2026	25,243
	September 10,2024	Montreal Trust Company	GTD Investment Certificate	2,100,000	3.750%	3.75%	September 11, 2026	25,243
		TOTAL INVESTMENTS		**49,394,169**				$2,607,184

TOTAL CASH AND INVESTMENTS	**$66,254,471**
* Reserve Balance at December 31st, 2023	52,678,473

Investment By Institution

	% of Total Portfol
C.I.B.C.	41%
Montreal Tust Company	4%
Manulife Trust Co	13%
ManuLife Financial Bank	4%
One Investment Program	10%
Province of Ontario	5%
Laurenian Bank of Canada	9%
National Bank of Canada	8%
HSBC Bank of Canada	2%
National Trust Company	4%
	100%

* Reserve balances are reviewed annually by the Board in November.

Grand River Conservation Authority

Report number: GM-10-25-99

Date: October 25, 2024

To: Members of the Grand River Conservation Authority

Subject: Financial Summary for the Period Ending September 30, 2024

Recommendation:

THAT the Financial Summary for the period ending September 30, 2024 be approved.

Summary:

The Financial Statements include the 2024 *actual* year-to-date income and expenditures. The budget approved at the February 23, 2024 General Meeting is included in the *Budget* column. The *Current Forecast* column indicates an estimate of income and expenditures to the end of the current fiscal year. Currently, a net surplus of $352,500 at year-end is anticipated.

Report:

Forecast Adjustments for the period ending September 30, 2024 include the following:

A. Provincial Funding increased by $25,000
   - Conservation Services provincial funding increased to fund a Metrolinx compensation planting project.

B. Self-Generated Revenue increased by $1,191,000
   - Grand River Conservation Foundation funding related to the Outdoor Education Program increased by $416,000; $400,000 will fund the Guelph Lake Nature Centre building, utilizing the remainder of donations available from the Foundation to fund this project and $16,000 will fund maintenance work required at Apps' Mill Nature Centre.
   - Grand River Foundation funding related to Conservations Lands Management decreased by $25,000 as provincial funding has been approved to offset the costs of an Ecological Restoration special project.
   - Conservation Area revenue increased by $800,000 due to revised projection of annual fee revenue.

C. Operating Expenses increased by $102,000
   - Water Control Structure operating expenses increased by $145,000 for expenses related to the Water Control Structures Asset Management Plan (AMP). The AMP costs will be funded by the Land Sale Proceeds Reserve.
   - Conservation Lands Management compensation and benefits expenses decreased by $25,000 due to vacancy.
   - General Operating compensation and benefits expenses decreased by $25,000 due to the elimination of a position.
   - Watershed Services compensation and benefits expenses decreased by $74,000 due to vacancies.
   - Environmental Education major repairs expense increased by $16,000 for repairs at Apps' Mill Nature Centre.
   - Property Rentals operating expenses increased by $80,000 for road repairs, hazard tree management, and waste management costs in support of the cottage lot program.
   - Administrative Support – Category 3 compensation and benefits expenses decreased by $15,000 due to a vacancy.

D. Major Maintenance Expenses decreased by $33,000
   - Information Systems and Technology expenditures increased by $40,000 for additional IT hardware and storage purchases and compensation and benefits expenses decreased by $73,000 due to a vacancy and rate savings.

E. Special Project Expenses increased by $1,000,000
   - Environmental Education special project expenditures increased by $1,000,000 for costs related to building the new Guelph Lake Nature Centre. The total project cost is approximately $2 million and is expected to be completed before the end of 2024.

F. Net Funding to Reserves increased by $8,000
   - Funding from the Land Sale Reserve increased by $145,000 to fund the Water Control Structure Asset Management Plan.
   - Funding from the General Capital Reserve increased by $600,000 to fund the remaining expenses related to the Guelph Lake Nature Centre building. A letter has been issued to the Ministry requesting approval for use of the Land Sale Proceeds Reserve to fund the donation shortfall to complete this project. In the absence of a response, the General Capital Reserve will be used, and the GRCA will seek to repay the reserve with additional donations raised by the Grand River Conservation Foundation. Updates will be provided to the board if new information becomes available regarding approval to utilize the Land Sale Proceeds Reserve for this project.
   - Funding from the Cottage Lot Reserve increased by $80,000 to fund the increase in operational expenditures forecast.
   - Funding from the Conservation Area Reserve decreased by $17,000 and funding to the Conservation Area Reserve increased by $783,000 as a result of the increased revenue projection.
   - Funding from Information Systems and Technology reserve decreased by $33,000.

Financial Implications:

The forecast adjustments reported to date will result in a forecast surplus of $352,500 as at December 31, 2024.

Other Department Considerations:

Management and appropriate supervisory staff receive monthly financial reports and advise the finance department of applicable forecast adjustments.

Prepared by:

Kayleigh Keighan
Manager of Finance

Approved by:

Karen Armstrong
Deputy CAO/Secretary-Treasurer

GRAND RIVER CONSERVATION AUTHORITY

FINANCIAL SUMMARY - FORECAST

General Membership - October 25, 2024

FORECAST - AUGUST 31, 2024 - NET RESULT				**$213,500**
	CHANGES - September 2024			
P&S #3	Water Control Structures	($145,000)	Other Operating Expense Increase - Water Control Structures AMP	**$0**
		$145,000	Funding from Land Sale Proceeds Reserve Increase	
P&S #5	Conservation Lands Management	$25,000	Provincial Funding Increase - Metrolix Restoration Planting Project	**$25,000**
		($25,000)	Foundation Funding Decreased	
		$25,000	Compensation and Benefit Expense Decrease	
P&S #7	General Operating Expenses-Category 1	$25,000	Compensation and Benefit Expense Decrease	**$25,000**
P&S #8	Watershed Services-Category 2	$74,000	Compensation and Benefit Expense Decrease	**$74,000**
P&S #11	Outdoor Environmental Education	($1,000,000)	Special Project Expense Increase - Guelph Lake Nature Centre	**$0**
		($16,000)	Major Repairs Expense Increase	
		$416,000	Foundation Funding Increased	
		$600,000	Funding from General Capital Reserve Increase	
P&S #12	Property Rentals	($80,000)	Other Operating Expense Increase	**$0**
		$80,000	Funding from Cottage Operations Reserve Increase	
P&S #14	Conservation Areas	$800,000	Conservation Area Revenue Increase ($11.4M to $12.2M)	**$0**
		($17,000)	Transfer from Conservation Area Reserve Decrease	
		($783,000)	Transfer to Conservation Area Reserve Increase	
P&S #15	Admin Support Expenses-Category 3	$15,000	Compensation and Benefit Expense Decrease	**$15,000**
P&S #16	Motor Pool & Information Systems - Supplementary	$73,000	Compensation and Benefit Expense Decrease	**$0**
		($40,000)	Capital Expense Increase - IT hardware	
		($33,000)	Funding from IS Reserve Decrease	
FORECAST - SEPTEMBER 31, 2024 - NET RESULT				**$352,500**

GRAND RIVER CONSERVATION AUTHORITY
STATEMENT OF OPERATIONS
for the period Ending September 30, 2024

	Category		Budget 2023	Budget 2024	YTD Actual	Previous Forecast	Current Forecast	Forecast Change
REVENUE								
Municipal								
Municipal Apportionment	Category 1	various	11,976,000	12,275,000	12,275,000	12,275,000	12,275,000	-
Memorandums of Understanding Apportionment	Category 2	various	992,000	1,017,000	1,017,000	1,017,000	1,017,000	-
Other	Category 2 & 3	8	850,000	940,000	957,170	940,000	940,000	-
Total Municipal			**13,818,000**	**14,232,000**	**14,249,170**	**14,232,000**	**14,232,000**	**-**
Government Grants								
MNRF Transfer Payments	Category 1	various	449,688	449,688	449,688	449,688	449,688	-
Source Protection Program-Provincial	Category 1	6	640,000	834,000	615,869	862,000	862,000	-
Other Provincial	Category 1	various	737,500	737,500	833,899	1,737,500	1,762,500	25,000
Other Provincial	Category 2	8	-	130,000	151,788	130,000	130,000	-
Other Provincial	Category 3	10	30,000	100,000	71,409	65,000	65,000	-
Federal	Category 1,2,3	various	40,000	155,000	325,195	246,500	246,500	-
Total Government Grants			**1,897,188**	**2,406,188**	**2,447,848**	**3,490,688**	**3,515,688**	**25,000**
Self Generated								
User Fees and Sales								
Resource Planning	Category 1	4	1,144,000	994,000	731,249	914,000	914,000	-
Burford Operations & Planting Services	Category 3	9	580,000	680,000	760,662	820,000	820,000	-
Conservation Lands Income	Category 3	14	71,000	71,000	19,113	71,000	71,000	-
Conservation Lands Income	Category 1	5	15,000	15,000	158,750	160,000	160,000	-
Conservation Areas User Fees	Category 3	14	10,000,000	10,700,000	11,978,303	11,400,000	12,200,000	800,000
Environmental Education	Category 3	11	500,000	600,000	368,599	600,000	600,000	-
Property Rentals	Category 3	12	2,981,000	3,038,000	2,467,240	3,058,000	3,058,000	-
Hydro Generation	Category 3	13	580,000	580,000	475,546	580,000	580,000	-
Land Sales	Category 1	5	-	-	1,745,835	1,750,000	1,750,000	-
Grand River Conservation Foundation	Category 1,2,3	various	27,000	662,000	280,642	1,172,000	1,563,000	391,000
Donations	Category 1,2,3	various	-	-	55,558	35,000	35,000	-
Investment Income	General Operating	7	1,350,000	2,200,000	1,341,310	2,200,000	2,200,000	-
Miscellaneous Income	various	various	-	-	74,836	60,000	60,000	-
Total Self-Generated Revenue			**17,248,000**	**19,540,000**	**20,457,643**	**22,820,000**	**24,011,000**	**1,191,000**
TOTAL REVENUE			**32,963,188**	**36,178,188**	**37,154,661**	**40,542,688**	**41,758,688**	**1,216,000**

GRAND RIVER CONSERVATION AUTHORITY
STATEMENT OF OPERATIONS
for the period Ending September 30, 2024

	Category		Budget 2023	Budget 2024	YTD Actual	Previous Forecast	Current Forecast	Forecast Change
EXPENSES								
OPERATING								
Watershed Management	Category 1	1	1,276,000	1,146,100	662,557	985,100	985,100	-
Flood Forecasting and Warning	Category 1	2	895,000	911,000	731,086	1,011,000	1,011,000	-
Water Control Structures	Category 1	3	2,143,200	2,128,700	1,527,740	2,130,700	2,275,700	145,000
Resource Planning	Category 1	4	2,551,800	2,679,600	1,940,080	2,744,600	2,744,600	-
Conservation Lands Management	Category 1	5	2,954,600	2,871,900	1,877,220	2,826,900	2,801,900	(25,000)
Source Protection Program	Category 1	6	640,000	834,000	615,869	862,000	862,000	-
General Operating Expenses	General Operating	7	3,495,788	4,267,714	2,899,870	4,247,214	4,222,214	(25,000)
Watershed Services	Category 2	8	1,043,000	1,068,000	736,726	1,068,000	994,000	(74,000)
Burford Operations & Planting Services	Category 3	9	867,300	992,900	919,755	1,037,900	1,037,900	-
Conservation Services	Category 3	10	81,200	82,200	14,451	82,200	82,200	-
Environmental Education	Category 3	11	775,100	912,000	615,074	957,000	973,000	16,000
Property Rentals	Category 3	12	1,095,200	1,109,200	903,056	1,059,200	1,139,200	80,000
Hydro Production	Category 3	13	95,500	95,500	93,389	135,500	135,500	-
Conservation Areas	Category 3	14	9,037,000	9,782,000	8,376,897	10,082,000	10,082,000	-
Administrative Support	Category 3	15	1,198,000	1,217,400	873,556	1,148,400	1,133,400	(15,000)
Total Operating Expenses			**28,148,688**	**30,098,214**	**22,787,326**	**30,377,714**	**30,479,714**	**102,000**
MAJOR MAINTENANCE & EQUIPMENT								
Watershed Management	Category 1	1	110,000	110,000	20,901	110,000	110,000	-
Flood Forecasting and Warning	Category 1	2	190,000	190,000	75,728	190,000	190,000	-
Water Control Structures	Category 1	3	1,500,000	1,500,000	1,640,169	3,500,000	3,500,000	-
Conservation Areas	Category 3	14	2,000,000	2,000,000	1,455,779	2,000,000	2,000,000	-
Information Systems	General Operating	16	290,000	459,000	50,243	454,000	421,000	(33,000)
Motor Pool	General Operating	16	14,000	415,000	(75,462)	415,000	415,000	-
Total Major Maintenance & Equipment Expenses			**4,104,000**	**4,674,000**	**3,167,358**	**6,669,000**	**6,636,000**	**(33,000)**
SPECIAL PROJECTS								
Flood Forecasting and Warning	Category 1	2	-	250,000	97,292	250,000	250,000	-
Conservation Lands Management	Category 1	5	-	100,000	28,404	100,000	100,000	-
Watershed Services	Category 2	8	800,000	1,095,000	684,922	1,103,500	1,103,500	-
Conservation Services	Category 3	10	40,000	185,000	188,163	195,000	195,000	-
Environmental Education	Category 3	11	-	500,000	492,936	1,000,000	2,000,000	1,000,000
Total Special Project Expenses			**840,000**	**2,130,000**	**1,491,717**	**2,648,500**	**3,648,500**	**1,000,000**
TOTAL EXPENSES			**33,092,688**	**36,902,214**	**27,446,401**	**39,695,214**	**40,764,214**	**1,069,000**
Gross Surplus/(Deficit)			**(129,500)**	**(724,026)**	**9,708,260**	**847,474**	**994,474**	**147,000**
Prior Year Surplus Carryforward			**100,000**	**537,526**	**537,526**	**537,526**	**537,526**	**-**
Net Funding FROM/(TO) Reserves			**29,500**	**186,500**	**200,000**	**(1,171,500)**	**(1,179,500)**	**(8,000)**
NET SURPLUS			**-**	**-**	**10,445,786**	**213,500**	**352,500**	**139,000**

Grand River Conservation Authority

Report number: GM-10-24-87

Date: October 25, 2024

To: Members of the Grand River Conservation Authority

Subject: Budget 2025 – Draft #1

Recommendation:

THAT Report Number10-24-87 – Budget 2025 - Draft #1 be approved for consultation purposes, circulated to all participating municipalities, and posted to the GRCA website.

THAT staff be directed to forward correspondence regarding the Minister's direction to freeze planning and regulations user fees to the Minister of Natural Resources and Forestry.

Summary:

This report summarizes the first draft of the 2025 Budget. The final budget for 2025 will be presented for approval at the February 28, 2025 Annual General Meeting. See Budget 2025 Timetable (Appendix A) for additional details on budget timelines.

Budget 2025-Draft #1 reflects the continuation of programs and services delivered in 2024 and maintains breakeven results. Total draft expenditures for 2025 are $37,907,688 (2024: $36,902,214). Preliminary budget financial figures are outlined in Appendix G which includes the Statement of Operations and detailed Program and Services statements. The individual programs and services budgets have been categorized as Operating, Major Maintenance and Equipment, and Special projects.

Grand River Conservation Authority (GRCA) programs and services are funded by:

- Municipal Apportionment
- Municipal Funding as per Memorandum of Understandings (MOUs)
- Other Municipal Funding (by special agreements)
- Provincial and Federal Grants
- Self-Generated Revenue
- Funding from Reserves

Overall, the municipal funding request has been increased by 3.5% (or $465,000) to $13,757,000 in 2025. For a breakdown of municipal funding by Category 1, 2, and general operating expenses see Appendix C "Budget 2025 Municipal funding breakdown".
As required under *O.Reg.687/21 Transition Plans and Agreements for Programs and Services Under Section 21.2.2 of the Act,* the GRCA has developed an Inventory of Programs and Services based on the categories identified in the Regulation. These categories include: (1) Mandatory, (2) Municipally requested, (3) Other (Authority determines are advisable), and General Operating Expenses.

Appendix B "Programs & Services Inventory" outlines the expenditures and funding sources applicable to each category, along with the reallocation of program surplus between programs and services.

Appendix D "Summary of Municipal Apportionment" details the municipal apportionment and Memorandum of Understanding (MOU) funding requests by participating municipalities.

TABLE A -BUDGET 2025 EXPENDITURES

	2025	2024	Increase/(decrease)
EXPENDITURES			
Operating Expenses	$30,904,688	$30,098,214	$806,474
Capital Expenses	$6,053,000	$4,674,000	$1,379,000
Special Projects	$950,000	$2,130,000	($1,180,000)
TOTAL	**$37,907,688**	**$36,902,214**	**$1,005,474**

Note: Use of the term capital expenses for spending that is funded with municipal apportionment refers to major maintenance, water control structure studies, or water management equipment.

Report:

A. CONSERVATION AUTHORITIES ACT - NEW REGULATIONS Jan 1, 2024

The Conservation Authorities Act (CA Act) outlines three categories of programs and services: (1) Mandatory, (2) Municipally requested, and (3) Other (Authority determines are advisable).

O. Reg. 402/22 - Budget and Apportionment defines “general operating expense or capital cost” as an operating expense or capital cost that is not related to the provision of a program or service that an authority provides. The regulations require that these costs be identified separately, and municipal funding be apportioned using Modified Current Value Assessment (MCVA).

O. Reg. 402/22 requirements came into force for the 2024 budget process. See Appendix A – Budget 2025 Timetable for timeline details. This regulation outlines Four Phases to the budget process

- Phase 1: Categorizing revenue and expenses as per the categories listed above, and amounts of municipal apportionment
- Phase 2: Board approval of draft budget for consultation (vote required), distribution to participating municipalities, and posting on the GRCA’s Governance section on the website. Consultation with municipalities will occur as required.
- Phase 3: Board apportionment approval process (weighted vote required)
- Phase 4: Final budget approval process (vote required)

B. OPERATING BUDGET

In general, the 2025 budget assumes the same level of program and service delivery as provided in 2024. Any exceptions to specific program areas are included in the commentary below as applicable.

(a) Resource Planning

- Resource Planning fee revenue declined in 2024 and therefore this draft of the budget reduced revenue by $70,000.
- Compensation and benefits costs reduced by $70,000 to recognize vacancy, rate savings which have occurred historically.

(b) Residential Property Rental Program

- The Residential Property Rental Program is in the process of winding down. The budgeted 2025 revenue of $115,000 assumes no decrease in occupancy during 2025.
- The budgeted net result for this program is a $28,000 surplus.

(c) Outdoor Environmental Education

- Negotiations with school boards for 2024/25 contracts have been completed. The first draft of the budget assumes that 2024/25 school contracts will be extended for the 2025/26 school year. This draft does not include any community or day camp program delivery. Decisions regarding the future format and scope of the Outdoor Environmental Education program will be incorporated into future budget drafts as applicable.

(d) Conservation Areas

- Conservation Area 2025 budgeted revenue of $11,200,000 is approximately $1,000,000 less than projected revenue of $12,200,000 for 2024.
- Operating expenses have been increased by $500,000.
- Conservation Area program and services expenses have been expanded to include 100% of Manager of Conservation Area Operations, 50% of Luther Marsh operations, and 100% of hazard tree management in the Conservation Areas. The funding for these three additional components is being funded with surplus from other Category 3 programs. These expenses have been increased by $34,000 (from $510,000 to $544,000)
- The Conservation Areas budget excludes any allocation for corporate services overhead expenses.
- The revenue and cost assumptions will be revisited once actuals for the full 2024 season are available. Any adjustments to operating revenue or expenses will be the transfer to/from the Conservation Areas Reserve.

(e) Investment Income

- Income increased $100,000 due to higher interest being earned on cash balances.

(f) Section 39 Funding

- It is assumed that there will no cutbacks in the provincial Section 39 grant for the period April 1, 2025 to March 31, 2026 and therefore the Section 39 grant amount is anticipated to remain at $449,688.

(g) Municipal Apportionment Funding

- The 2025 Budget includes $12,705,000 of funding for Category 1 Mandatory Programs and General Operating Expenses along with $1,052,000 for Category 2 MOU Programs for a total of $13,757,000 which is a $465,000 (or 3.5%) increase over the 2024 Apportionment of $13,292,000.

(h) Surplus Assumption

- The draft budget assumes a $100,000 surplus carry forward from 2024. If additional surplus is applicable, staff will recommend that it be incorporated in the final budget and primarily used for non-recurring expense demands (i.e. consulting, professional development, and other administrative costs).

(i) Transition Reserve (created in 2021)

- The purpose of the reserve is to fund expenditures related to the transitioning of the GRCA to new provincial regulations requirements and/or fund costs related to managing expenses impacted by COVID-19 or revenue losses due to COVID-19. As at December 31, 2023, the reserve balance is approximately $2.6 million.
- The strategy for Budget 2025 draft #1 is to utilize the transition reserve to fund one staff position ($100,000) and to fund the Outdoor Environmental Education program deficit ($353,000).

(j) Compensation and Benefits and Staffing:
- The 2025 draft budget includes a 5% increase for compensation and benefits which allows for a general wage increase, grid steps within wage scales, market adjustments, and benefit cost increases. One finance position has been eliminated from the budget. One administrative position is being added to the budget.

(k) Source Protection Program
- The province has identified that this program is considered a Category 1 mandatory program that is required to be delivered by Conservation Authorities. The GRCA has a contract for the period April 1, 2024 to March 31, 2027 (3 years). The 2025 budget reflects spending requirements in accordance with the contract.

C. CAPITAL & MAJOR MAINTENANCE BUDGET

(a) Major Maintenance Spending Water Control Structures
- The budget is set at $3,000,000. Any increases in spending required can be funded with the Water Control Structures reserve and/or the Land Sale Proceeds reserve. Government funding included in budget 2025 relates to provincial Water and Erosion Control Infrastructure (WECI) funding which is subject to provincial approval of projects. Changes to this budget line will not impact the request for municipal funding. Any additional spending will be funded with WECI funding or reserves.

(b) Capital Spending Conservation Areas
- The budget is set at $2,000,000. This spending is budgeted to be funded with $1,500,000 of fee revenue and $500,000 from the conservation area reserve. Future budget drafts will be revised as capital projects are prioritized. Any increases in budgeted spending will be facilitated by either increased revenue or use of the conservation area reserve. Any decrease in budgeted expenses would be offset by a transfer to the conservation reserve.

(c) Water Monitoring Equipment and Flood Forecasting and Warning Expenses
- The budget is being held constant at $300,000. The gauge reserve will be used to fund $100,000 of total costs and the remaining costs will be funded with Category 1 Municipal Apportionment funding.

(d) Information Systems and Motor Pool
- Costs of $429,000 for Information Systems and $324,000 for Motor Pool represent the costs not funded through internal cost allocations to programs and services and are funded through the IS reserve and MP reserve respectively. See Appendix G ‘P&S #16 - Supplemental Information – IS and MP’ for detailed expense information.

D. SPECIAL PROJECTS

(a) Special projects do not rely on Municipal Apportionment funding.

(b) This draft of the budget only includes items that are known or highly likely to be undertaken and a cost can be estimated. At present, the budget includes $950,000 in spending. By the time the 2025 budget is finalized, special project spending, along with matching revenue, is expected to increase as projects are approved and carryover amounts are confirmed.

(c) The $950,000 in special projects included in this draft budget are:
- $800,000 Rural Water Quality Capital Grants
- $45,000 Brant/Brantford Children’s Water Festival
- $35,000 Mill Creek Rangers Project
- $70,000 Species at Risk

(d) New Guelph Lake Nature Centre Building

This project is anticipated to be completed by end of 2024. The final budget draft may incorporate costs if the project is not completed. Funding will be provided by donations and may potentially require the use of GRCA reserves.

E. RESERVES

For 2025, reserves are budgeted to decrease by $826,500. Significant budgeted drawdowns to reserves include: $750,000 for Water Control Major Maintenance projects, $500,000 for Conservation Area capital projects, $353,000 to fund the Environmental Education deficit, $270,000 to fund two staff positions, $429,000 for Information Systems, and $324,000 for Motor Pool. See Appendix E 'Summary of Reserves' for details of reserve movements budgeted for 2025. Interest income of $2,050,000 is expected to be transferred into reserves. The use of reserves is integral to GRCA operations. The GRCA sets aside certain funds to reserves (i.e. Land Sale Proceeds, Hydro Revenue, Interest Earned on Reserves) in order to be able to draw upon these reserves at a later date in accordance with either legislative mandates and/or board-approved use. The Programs & Services Inventory expenditures includes $66,500 in transfer of Hydro revenue to the capital reserve (Appendix B).

Reserves can be viewed as:

- Planned savings set aside for future capital projects (facilitates smoothing of funding requests)
- Surpluses set aside for future operating or capital needs (i.e. Conservation Area revenue in excess of budget)
- Contingency funds for unplanned expenditures
- Legislated amounts to be used in accordance with regulations (i.e. land sale proceeds

A detailed report on reserves will be presented at the November 22, 2024 meeting.

F. CATEGORY 2 – WATERSHED SERVICES

The programs and services included under watershed services are:

- Subwatershed Studies
- Conservation Services
- Water Quality
- Water Quality - Wastewater Optimization Program
- Water Quality - Groundwater Resources
- Watershed Sciences and Collaborative Planning

See Appendix F 'Budget 2025 Category 2 - Watershed Services Program Breakdown'

All participating municipalities entered into a Memorandum of Agreement with the GRCA to provide the above listed services.

G. MUNICIPAL APPORTIONMENT

Where municipal funding is applicable, namely, Category 1, 2, and General Operating Expenses, the methodology of apportionment used is Modified Current Value Assessment (MCVA) on the basis that there is a watershed benefit for all participating municipalities from the programs and services. See Appendix D 'Budget 2025 Summary of Municipal Apportionment' for details.

The methodology for calculating the MCVA and distributing apportionment is outlined *in O. Reg. 402/22 Section (7).* Five-year agreements with participating municipalities for Category

2 programs and services outline that net costs be allocated same as Category 1, namely, the MCVA method.

OTHER MAJOR ASSUMPTIONS

(a) Cottage Lot Rental Program revenue increased by 2.0%.
(b) Total Insurance expense increased by 5% or $35,000 to reflect 2024 rate increases and projected 2025 rate increases.
(c) Total Property Tax expense increased 3% or $15,000.
(d) Administrative expense related to computer charge-out rates increased 7% or $100,000
(e) Other Operating expenses increased between 0% and 3% as applicable.
(f) Motor Pool charge-out rates held constant.

H. SIGNIFICANT OUTSTANDING BUDGET ITEMS

(a) Year 2024 Carry forward Adjustments
2024 Surplus carry forward - this draft of the 2025 Budget assumes a $100,000 surplus carryover from year 2024. The actual “2024 Net Surplus” will be incorporated into the 2025 budget.

(b) 2024 Special Projects carry forward
Any projects commenced in year 2024 and not completed by December 31, 2024 will be carried forward and added to Budget 2025 (i.e. both the funding and the expense will be added to Budget 2025 and therefore these adjustments will have no impact on the breakeven net result).

(c) Water Control Structures Major Maintenance Expenditures
A final determination of the amount of spending to be added to the Budget 2025 (i.e. unspent amounts from 2024, new projects) will be made, including use of reserves for 2025 projects. Any decisions to increase spending should not impact the general municipal apportionment request but would be funded with reserves, WECI funding, and/or new funding sources, as applicable.

(d) Conservation Area Revenue and Expenses
Final revenue, operating, and capital expense figures are to be determined following the year-end actuals review.

(e) Outdoor Environmental Education
Final revenue and operating expense figures are to be determined following further information on program delivery developments.

The following are attached:

Appendix A: Budget 2025 Timetable
Appendix B: Budget 2025 Program and Services Inventory
Appendix C: Budget 2025 Municipal Funding Breakdown
Appendix D: Budget 2025 Summary of Municipal Apportionment
Appendix E: Budget 2025 Summary of Reserves
Appendix F: Budget 2025 Category 2 - Watershed Services Program breakdown
Appendix G: Statement of Operations & Detailed Programs and Services Statements

Financial Implications:

Budgeted spending for 2025 is $37,857,688 (2024: $36,902,214) before transfer of $66,500 to reserves. This first draft of the budget includes a municipal apportionment (levy) increase of $465,000 (or 3.5%).

The main budgetary challenges faced by the GRCA are:

- Cost pressures created by the economic environment including inflation, supply chain issues, and labour force shortages.
- Conservation Area operating revenue is impacted by fluctuations in consumer demand and weather conditions which are difficult to predict.
- Aging infrastructure in the Conservation Areas and Nature Centre facilities.
- Increased demands on managing passive lands (i.e. land use decisions, hazard tree management, trespassing, infrastructure).
- Keeping pace with digital innovation and technological advancements.

Other Department Considerations:

None

Prepared by:

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Manager of Corporate Services

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Approved by:

Samantha Lawson
Chief Administrative Officer

Budget 2025 Timetable

Appendix A

September 27, 2024:	Timelines and Preliminary Considerations
October 25, 2024:	Draft Budget #1 to General Meeting and Board approval of the draft budget for consultation purposes
November 2024:	Distribute Draft Budget #1 to Participating Municipalities and post it on the GRCA website in the Governance section
Nov & Dec 2024:	Consultation with Participating Municipalities as requested
December 13, 2024:	Board Motion to send 30 days' notice to Participating Municipalities of Municipal Apportionment Vote at January 26, 2024 General Meeting
December 20, 2024:	Send Notice to Participating Municipalities of Municipal Apportionment Vote and include apportionment amounts and most recent draft Budget
Jan 24, 2025:	Draft Budget #2 to General Meeting and Municipal Apportionment Vote – weighted majority and recorded. Once approved, distribute to Participating Municipalities.
Feb 28, 2025:	Final 2025 Budget Vote – weighted majority (as per by-law) and recorded. Once approved, distribute to Participating Municipalities, post on the GRCA website, and send to MNRF

Grand River Conservation Authority

PROGRAMS AND SERVICES INVENTORY

BUDGET 2025

	Programs & Services Inventory	TOTAL EXPENDITURES (includes transfers to reserves)	MUNICIPAL APPORTIONMENT/ Cat 2-MOA FUNDING	MUNICIPAL-0THER	SELF-GENERATED REVENUE	PROVINCIAL & FEDERAL GRANTS	Funding from RESERVES	Programs& Services SURPLUS allocation	TOTAL REVENUE (after P&S surplus allocation)	NET RESULT
CATEGORY 1	Watershed Management	**1,028,100**	915,600			37,500	75,000		**1,028,100**	-
	FFW & Flood Plain Mapping	**1,291,000**	1,101,662			164,338	25,000		**1,291,000**	-
	Water Control Structures	**5,490,700**	2,785,350			1,735,350	970,000		**5,490,700**	-
	Resource Planning	**2,747,600**	1,823,600		924,000				**2,747,600**	0
	Conservation Lands Management	**2,981,900**	2,739,900		42,000		200,000		**2,981,900**	0
	Source Protection Planning	**780,000**	-			780,000			**780,000**	-
	Total Category 1	**14,319,300**	**9,366,112**		**966,000**	**2,717,188**	**1,270,000**	**-**	**14,319,300**	**0**
			65%	*0%*	*7%*	*19%*	*9%*	*0%*	*100%*	
General Operating	**General Operating Expenses (note 5)**	**4,668,688**	**3,338,888**		**350,000**		**818,000**	**161,800**	**4,668,688**	-
			72%	*0%*	*7%*	*0%*	*18%*	*3%*	*100%*	
CATEGORY 2	**CATEGORY 2 Watershed Services**	**1,973,000**	**1,052,000**	**850,000**	**-**	**70,000**	**1,000**		**1,973,000**	-
			53%	*43%*	*0%*	*4%*	*0%*	*0%*	*100%*	
CATEGORY 3	Burford Tree Nursery & Planting Services	**1,012,400**			680,000			332,400	**1,012,400**	-
	Conservation Services (Special Projects)	**166,200**		10,000	35,000	65,000		56,200	**166,200**	-
	Outdoor Environmental Education	**953,000**			600,000		353,000	-	**953,000**	-
	Property Rentals	**1,109,700**			3,130,000			(2,020,300)	**1,109,700**	-
	Hydro Production	**162,000**			530,000			(368,000)	**162,000**	-
	Conservation Areas	**12,316,000**			11,271,000		501,000	544,000	**12,316,000**	-
	Administrative Support (note 6)	**1,293,900**						1,293,900	**1,293,900**	-
	Total Category 3	**17,013,200**	**-**	**10,000**	**16,246,000**	**65,000**	**854,000**	**(161,800)**	**17,013,200**	**-**
			0%	*0%*	*95%*	*0%*	*5%*	*-1%*	*100%*	
	TOTAL Programs & Services	**37,974,188**	**13,757,000**	**860,000**	**17,562,000**	**2,852,188**	**2,943,000**	**-**	**37,974,188**	**0**
			36%	*2%*	*46%*	*8%*	*8%*	*0%*	*100%*	
			NOTE 1, NOTE 4		**NOTE 2**			**NOTE 3**		

COMMENTARY:

NOTE 1 Total Programs & Services expenditures (includes transfers to reserves) is funded 36% by the combined total of mandatory municipal apportionment and Category 2 MOA municipal funding.

NOTE 2 Almost 50% of total expenses is funded with self-generated revenue.

NOTE 3 Category 3 'Property Rentals' and 'Hydro Production' generate a surplus which is allocated to Category 3 programs and General Operating expenses to achieve breakeven results for each P&S.

NOTE 4 In 2024 Municipal funding totalled $13,292,000. Therefore Municipal funding is increasing by $465,000 (or 3.5%) to $13,757,000 in 2025 compared to 2024.

NOTE 5 **General Operating Expense**s include administrative expenses related to Office of the CAO, communications, capital support, finance, payroll, human resources, Health and Safety, head Office facility, and other administrative expenses that suport the provision of programs and services.

NOTE 6 **Administrative Support** includes administrative expenses related to finance, communications, capital support and other administrative expenses that support category 3 programs and services.

Grand River Conservation Authority

MUNICIPAL FUNDING BREAKDOWN (note 1)

BUDGET 2025

	2024 Municipal Apportionment	2025 Municipal Apportionment
CATEGORY 1 - Mandatory	8,964,112	9,366,112
General Operating Expenses	3,310,888	3,338,888
CATEGORY 2 - Municipally Requested MOU's	1,017,000	1,052,000
	13,292,000	**13,757,000**
	dollar Increase	*465,000*
	percentage Increase	*3.5%*

Note 1

Funding under special agreements with Municipalites is not included in above municipal funding breakdown (i.e. RWQP, Subwatershed studies)

Grand River Conservation Authority
Summary of Municipal Apportionment - 2025 Budget

DRAFT - October 25, 2024

	% CVA in Watershed	2024 CVA (Modified)	CVA in Watershed	CVA-Based Apportionment	2025 Budget General Operating Expenses*	2025 Budget Category 1 Operating Expenses*	2025 Budget Category 2 Operating Expenses*	2025 Budget Total Apportionment	2024 Actual Total Apportionment	% Change
Brant County	82.9%	7,956,819,370	6,596,203,258	3.03%	101,217	283,929	31,891	417,037	395,639	5.4%
Brantford C	100.0%	16,110,222,385	16,110,222,385	7.40%	247,206	693,453	77,888	1,018,547	987,407	3.2%
Amaranth Twp	82.0%	858,651,370	704,094,123	0.32%	10,804	30,307	3,404	44,515	42,773	4.1%
East Garafraxa Twp	80.0%	698,985,395	559,188,316	0.26%	8,581	24,070	2,704	35,355	32,895	7.5%
Town of Grand Valley	100.0%	637,941,807	637,941,807	0.29%	9,789	27,460	3,084	40,333	39,251	2.8%
Melancthon Twp	56.0%	636,708,237	356,556,612	0.16%	5,471	15,348	1,724	22,543	21,692	3.9%
Southgate Twp	6.0%	1,226,384,688	73,583,081	0.03%	1,129	3,167	356	4,652	4,386	6.1%
Haldimand County	41.0%	7,744,135,997	3,175,095,759	1.46%	48,721	136,670	15,351	200,742	192,819	4.1%
Norfolk County	5.0%	9,992,562,732	499,628,137	0.23%	7,667	21,506	2,416	31,589	30,988	1.9%
Halton Region	10.6%	50,597,805,213	5,374,240,578	2.47%	82,466	231,330	25,983	339,779	325,623	4.3%
Hamilton City	26.8%	99,914,929,873	26,727,243,741	12.28%	410,121	1,150,455	129,219	1,689,795	1,639,233	3.1%
Oxford County	35.9%	4,736,170,991	1,700,479,619	0.78%	26,093	73,196	8,221	107,510	105,841	1.6%
North Perth T	2.0%	2,555,744,512	51,114,890	0.02%	784	2,200	247	3,231	3,115	3.7%
Perth East Twp	40.0%	2,138,784,312	855,513,725	0.39%	13,128	36,825	4,136	54,089	52,608	2.8%
Region of Waterloo	100.0%	110,087,538,563	110,087,538,563	50.59%	1,689,258	4,738,637	532,243	6,960,138	6,710,728	3.7%
Centre Wellington Twp	100.0%	5,678,028,668	5,678,028,668	2.61%	87,128	244,407	27,452	358,987	344,247	4.3%
Erin T	49.0%	2,665,324,254	1,306,008,884	0.60%	20,040	56,216	6,314	82,570	80,462	2.6%
Guelph C	100.0%	29,061,812,848	29,061,812,848	13.36%	445,944	1,250,945	140,506	1,837,395	1,788,751	2.7%
Guelph Eramosa Twp	100.0%	3,023,807,383	3,023,807,383	1.39%	46,399	130,158	14,619	191,176	186,515	2.5%
Mapleton Twp	95.0%	1,950,508,544	1,852,983,117	0.85%	28,433	79,760	8,959	117,152	114,764	2.1%
Wellington North Twp	51.0%	1,881,548,776	959,589,876	0.44%	14,725	41,305	4,639	60,669	58,619	3.5%
Puslinch Twp	75.0%	2,935,530,680	2,201,648,010	1.01%	33,784	94,768	10,644	139,196	133,644	4.2%
Total		**363,089,946,596**	**217,592,523,382**	**100.00%**	**3,338,888**	**9,366,112**	**1,052,000**	**13,757,000**	**13,292,000**	**3.5%**

**Operating Expenses include maintenance of capital infrastructure, studies, and/or equipment.*

Grand River Conservation Authority

BUDGET 2025 - SUMMARY of RESERVES

General Meeting - October 25, 2024

	BUDGET 2024	"NET CHANGE" INCREASE/(DECREASE) 2024 VS 2025	DETAILS OF "NET CHANGE" BUDGET 2025				BUDGET 2025
			Transfer In (Interest Income)	Transfer In	Transfer Out	Description of Transfer	
Type A: GRCA Controlled							
Operating Reserves (designated)							
Property & Liability Insurance	291,417	**10,000**	10,000				301,417
Building & Mechanical Equipment	1,393,443	**50,000**	50,000				1,443,443
Small Office Equipment	0	**0**	0				0
Personnel	1,279,167	**(20,000)**	45,000		(65,000)	**OUT- Vacation Accrual, Wages**	1,259,167
Transition	2,320,308	**(353,000)**	100,000		(453,000)	**OUT-$100K Staff Position, $353,000 Environmental Education**	1,967,308
Forestry	1,586,205	**50,000**	50,000				1,636,205
Information Systems and Technology	976,899	(384,000)	45,000	1,532,000	(1,961,000)	**IN-Chargebacks; OUT-Operating/Capital costs**	592,899
Cottage Operations	1,321,831	**50,000**	50,000				1,371,831
Grand River Watershed Management Plan	123,589	**5,000**	5,000				128,589
Planning Enforcement	567,652	**20,000**	20,000				587,652
Property Rental Expenses	820,090	**35,000**	35,000				855,090
Watershed Restoration	345,225	**10,000**	10,000				355,225
Master Planning	462,298	**20,000**	20,000				482,298
Water Management Operating NEW-2022	1,078,942	**(130,000)**	40,000		(170,000)		948,942
Motor Pool Equipment	1,315,460	**(264,000)**	60,000	1,400,000	(1,724,000)	**IN-Chargebacks;OUT-Operating/Capital costs**	1,051,460
Motor Pool Insurance	99,821	**4,000**	4,000				103,821
Capital Reserves (designated)							
Water Control Structures	3,136,063	**80,000**	130,000		(50,000)	**OUT-Water Control Structures major repairs**	3,216,063
Cambridge Desiltation Pond	3,967	**(1,000)**	0		(1,000)	**OUT-Cambrige Desiltation Pond costs**	2,967
Completion of Capital Projects	162,000	**0**					162,000
Conservation Areas-Stabilization/Capital	8,291,029	**(180,000)**	320,000		(500,000)	**OUT-Cons Area Capital costs**	8,111,029
Gauges	950,910	**(60,000)**	40,000		(100,000)	**OUT-Gauge costs**	890,910
Capital Reserves (undesignated)							
General Capital Reserve	1,609,071	**116,500**	50,000	66,500		**IN-Hydro Generation Revenue**	1,725,571
Total Type A: GRCA Controlled	**28,135,387**	**(941,500)**	**1,084,000**	**2,998,500**	**(5,024,000)**		**27,193,887**
Type B: Reserves with Outside Control/Interest							
With MNRF Interest (Capital Reserves)							
Gravel	279,315	**9,000**	10,000		(1,000)	**OUT-Gravel Pit License**	288,315
Land Sale Proceeds Reserve	23,618,711	**90,000**	940,000		(850,000)	**OUT-$100K Demolition costs, $750K Water Control Structure Projects**	23,708,711
With School Board Interest (Operating Reserves)							
App's Nature Centre	79,501	**3,000**	3,000				82,501
Laurel Creek Nature Centre	121,762	**5,000**	5,000				126,762
Guelph Lake Nature Centre	149,181	**4,000**	4,000				153,181
Taquanyah Nature Centre	24,102	**1,000**	1,000				25,102
Shade's Mills Nature Centre	84,014	**3,000**	3,000				87,014
Total Type B: Outside Control/Interest	**24,356,586**	**115,000**	**966,000**	**0**	**(851,000)**		**24,471,586**
TOTAL	**$52,491,973**	**(826,500)**	**$2,050,000**	**$2,998,500**	**($5,875,000)**		**$51,665,473**

Grand River Conservation Authority

CATEGORY 2 - WATERSHED SERVICES PROGRAM BREAKDOWN

BUDGET 2025

Programs & Services		Cost		Offsetting Funding		NET COST	Description of Offsetting Funding
Sub-watershed Services	$	291,000	$	(50,000)	$	241,000	Municipal Funding
Conservation Services	$	1,435,000	$	(870,000)	$	565,000	Municipal & Federal Funding
Water Quality	$	151,000	$	(1,000)	$	150,000	Reserves
Water Quality - Waste Water Optimization Program	$	87,600	$	-	$	87,600	
Water Quality - Groundwater Resources	$	8,400	$	-	$	8,400	
Watershed Sciences & Collaborative Planning *							
TOTAL	**$**	**1,973,000**	**$**	**(921,000)**	**$**	**1,052,000**	

** Costs related to this activity integrated in the above listed programs and services.*

GRAND RIVER CONSERVATION AUTHORITY
STATEMENT OF OPERATIONS
BUDGET 2025

Appendix G

	New Regulations Category	P&S Ref #	NEW REGS Budget 2023 (draft Oct)	NEW REGS Budget 2024	NEW REGS Budget 2025
REVENUE					
Municipal					
Municipal Apportionment	Category 1	various	11,976,000	12,275,000	12,705,000
Memorandums of Understanding Apportionment	Category 2	various	992,000	1,017,000	1,052,000
Other	Category 2 & 3	8	850,000	940,000	860,000
			13,818,000	**14,232,000**	**14,617,000**
Government Grants					
MNRF Transfer Payments	Category 1	various	449,688	449,688	449,688
Source Protection Program-Provincial	Category 1	various	640,000	834,000	780,000
Other Provincial	Category 1	various	737,500	737,500	1,487,500
Other Provincial	Category 2	8	0	130,000	0
Other Provincial	Category 3	10	30,000	100,000	65,000
Federal	Category 1 & 2	various	40,000	155,000	70,000
			1,897,188	**2,406,188**	**2,852,188**
Self Generated					
User Fees and Sales					
Resource Planning	Category 1	4	1,144,000	994,000	924,000
Burford Operations & Planting Services	Category 3	9	580,000	680,000	680,000
Conservation Lands Income	Category 3	14	71,000	71,000	71,000
Conservation Lands Income	Category 1	5	15,000	15,000	15,000
Conservation Areas User Fees	Category 3	14	10,000,000	10,700,000	11,200,000
Environmental Education	Category 3	11	500,000	600,000	600,000
Property Rentals	Category 3	12	2,981,000	3,038,000	3,130,000
Hydro Generation	Category 3	13	580,000	580,000	530,000
Grand River Conservation Foundation	Category 1,2,3	various	27,000	662,000	62,000
Investment Income	General Operating	7	1,350,000	2,200,000	2,300,000
Total Self-Generated Revenue			**17,248,000**	**19,540,000**	**19,512,000**
TOTAL REVENUE			**32,963,188**	**36,178,188**	**36,981,188**

GRAND RIVER CONSERVATION AUTHORITY
STATEMENT OF OPERATIONS
BUDGET 2025

Appendix G

	New Regulations Category	P&S Ref #	NEW REGS Budget 2023 (draft Oct)	NEW REGS Budget 2024	NEW REGS Budget 2025
EXPENSES					
OPERATING					
Watershed Management	Category 1	1	1,276,000	1,146,100	918,100
Flood Forecasting and Warning	Category 1	2	895,000	911,000	1,101,000
Water Control Structures	Category 1	3	2,143,200	2,128,700	2,490,700
Resource Planning	Category 1	4	2,551,800	2,679,600	2,747,600
Conservation Lands Management	Category 1	5	2,954,600	2,871,900	2,981,900
Source Protection Program	Category 1	6	640,000	834,000	780,000
General Operating Expenses	General Operating	7	3,495,788	4,267,714	3,915,688
Watershed Services	Category 2	8	1,043,000	1,068,000	1,103,000
Burford Operations & Planting Services	Category 3	9	867,300	992,900	1,012,400
Conservation Services	Category 3	10	81,200	82,200	86,200
Environmental Education	Category 3	11	775,100	912,000	953,000
Property Rentals	Category 3	12	1,095,200	1,109,200	1,109,700
Hydro Production	Category 3	13	95,500	95,500	95,500
Conservation Areas	Category 3	14	9,037,000	9,782,000	10,316,000
Administrative Support	Category 3	15	1,198,000	1,217,400	1,293,900
Total OPERATING Expenses			**28,148,688**	**30,098,214**	**30,904,688**
MAJOR MAINTEANCE & EQUIPMENT Expenses					
Watershed Management	Category 1	1	110,000	110,000	110,000
Flood Forecasting and Warning	Category 1	2	190,000	190,000	190,000
Water Control Structures	Category 1	3	1,500,000	1,500,000	3,000,000
Conservation Areas	Category 3	13	2,000,000	2,000,000	2,000,000
Information Systems	General Operating	16	290,000	459,000	429,000
Motor Pool	General Operating	16	14,000	415,000	324,000
Total Capital Expenses			**4,104,000**	**4,674,000**	**6,053,000**
SPECIAL					
Flood Forecasting and Warning	Category 1	2	0	250,000	0
Resource Planning	Category 1	4	0	0	0
Conservation Lands	Category 1	5	0	100,000	0
Watershed Services	Category 2	8	800,000	1,095,000	870,000
Conservation Services	Category 3	10	40,000	185,000	80,000
Environmental Education	Category 3	11	0	500,000	0
Total SPECIAL PROJECTS Expenses			**840,000**	**2,130,000**	**950,000**
Total Expenses			**33,092,688**	**36,902,214**	**37,907,688**
Gross Surplus			**(129,500)**	**(724,026)**	**(926,500)**
Prior Year Surplus Carryforward			**100,000**	**537,526**	**100,000**
Net Funding FROM/(TO) Reserves			**29,500**	**186,500**	**826,500**
NET SURPLUS			**0**	**0**	**0**

GRAND RIVER CONSERVATION AUTHORITY

P&S #1 - Watershed Management

BUDGET 2025

	NEW REGS Budget 2023 (draft Oct version)	NEW REGS Budget 2024	NEW REGS Budget 2025	Budget Change
				INCR/(DECR)
How much does it cost, and who pays for it?				
Expenditures and Funding to Reserves				
Compensation and Benefits	1,013,900	884,000	688,000	(196,000)
Administration Expenses	197,000	197,000	165,000	(32,000)
Other Operating Expenses	65,100	65,100	65,100	-
Total OPERATING Expenditures	**1,276,000**	**1,146,100**	**918,100**	
Instrumentation	60,000	60,000	60,000	-
Water Quality Monitoring Equipment	50,000	50,000	50,000	-
Total CAPITAL Expenditures	**110,000**	**110,000**	**110,000**	
TOTAL EXPENDITURES AND FUNDING TO RESERVES	**1,386,000**	**1,256,100**	**1,028,100**	**(228,000)**
Funding				(INCR)/DECR
Municipal				
Municipal Apportionment (levy)	1,273,500	1,143,600	915,600	228,000
Government Grants				
Other Provincial	37,500	37,500	37,500	-
Funding From Reserves				
Gauges	75,000	75,000	75,000	-
TOTAL FUNDING	**1,386,000**	**1,256,100**	**1,028,100**	**228,000**
Net Surplus/(Deficit)	**0**	**0**	**0**	**0**

GRAND RIVER CONSERVATION AUTHORITY

P&S #2 - Flood Forecasting and Warning

BUDGET 2025

	NEW REGS Budget 2023 (draft Oct version)	NEW REGS Budget 2024	NEW REGS Budget 2025	Budget Change
How much does it cost, and who pays for it?				INCR/(DECR)
Expenditures and Funding to Reserves				
Compensation and Benefits	551,000	567,000	737,000	170,000
Administration Expenses	236,000	236,000	256,000	20,000
Other Operating Expenses	108,000	108,000	108,000	-
Total OPERATING Expenditures	**895,000**	**911,000**	**1,101,000**	
Hardware	88,000	88,000	88,000	-
Stream Gauges	102,000	102,000	102,000	-
Total CAPITAL Expenditures	**190,000**	**190,000**	**190,000**	
Floodplain Mapping Projects		250,000		(250,000)
Total SPECIAL PROJECT Expenditures	**0**	**250,000**	**0**	
TOTAL EXPENDITURES AND FUNDING TO RESERVES	**1,085,000**	**1,351,000**	**1,291,000**	**(60,000)**
Funding				(INCR)DECR
Municipal				
Municipal Apportionment (levy)	835,662	911,662	1,101,662	(190,000)
Government Grants				
MNRF Transfer Payments	164,338	164,338	164,338	0
Funding From Reserves				
Floodplain Mapping Projects & Gauges	25,000	275,000	25,000	250,000
Water Management Operating	60,000	0	0	0
TOTAL REVENUE	**1,085,000**	**1,351,000**	**1,291,000**	**60,000**
				-
Net Surplus/(Deficit)	**0**	**0**	**0**	**0**

GRAND RIVER CONSERVATION AUTHORITY

P&S #3 - Water Control Structures

BUDGET 2025

	NEW REGS Budget 2023	NEW REGS Budget 2024	NEW REGS Budget 2025	Budget Change
	(draft Oct version)			
How much does it cost, and who pays for it?				INCR/(DECR)
Expenditures and Funding to Reserves				
Compensation and Benefits	1,399,500	1,441,000	1,770,000	329,000
Administration Expenses	29,200	29,200	49,200	20,000
Insurance	199,000	143,000	151,000	8,000
Property Taxes	170,700	170,700	175,700	5,000
Other Operating Expenses	344,800	344,800	344,800	-
Total OPERATING Expenditures	**2,143,200**	**2,128,700**	**2,490,700**	
Total CAPITAL Expenditures	**1,500,000**	**1,500,000**	**3,000,000**	1,500,000
TOTAL EXPENDITURES AND FUNDING TO RESERVES	**3,643,200**	**3,628,700**	**5,490,700**	**1,862,000**
Funding				
				(INCR)/DECR
Municipal				
Municipal Apportionment (levy)	2,537,850	2,593,350	2,785,350	(192,000)
Government Grants				
MNRF Transfer Payments	285,350	285,350	285,350	0
Provincial	700,000	700,000	1,450,000	(750,000)
Funding From Reserves				
Water Control Structures/Water Mgmt Operating Reserve	120,000	50,000	970,000	(920,000)
TOTAL REVENUE AND FUNDING FROM RESERVES	**3,643,200**	**3,628,700**	**5,490,700**	**(1,862,000)**
Net Surplus/(Deficit)	**0**	**0**	**0**	**0**

GRAND RIVER CONSERVATION AUTHORITY

P&S #4 - Resource Planning

BUDGET 2025

	NEW REGS Budget 2023 (draft Oct version)	NEW REGS Budget 2024	NEW REGS Budget 2025	Budget Change
How much does it cost, and who pays for it?				INCR/(DECR)
Expenditures and Funding to Reserves				
Compensation and Benefits	2,275,200	2,403,000	2,435,000	32,000
Administration Expenses	221,900	221,900	257,900	36,000
Other Operating Expenses	54,700	54,700	54,700	-
Total OPERATING Expenditures	**2,551,800**	**2,679,600**	**2,747,600**	
TOTAL EXPENDITURES AND FUNDING TO RESERVES	**2,551,800**	**2,679,600**	**2,747,600**	**68,000**
Funding				(INCR)/DECR
Municipal				
Municipal Apportionment (levy)	1,362,800	1,685,600	1,823,600	(138,000)
Self Generated				
Solicitor Enquiry Fees	90,000	80,000	70,000	10,000
Permit Fees	500,000	470,000	410,000	60,000
Plan Review Fees	554,000	444,000	444,000	0
Funding from Reserves				
Water Management Operating Reserve	45,000	-	-	0
TOTAL REVENUE	**2,551,800**	**2,679,600**	**2,747,600**	**(68,000)**
Net Surplus/(Deficit)	**0**	**0**	**0**	**0**

GRAND RIVER CONSERVATION AUTHORITY

P&S #5 - Conservation Lands Management

BUDGET 2025

	NEW REGS Budget 2023 (draft Oct version)	NEW REGS Budget 2024	NEW REGS Budget 2025	Budget Change
How much does it cost, and who pays for it?				INCR/(DECR)
Expenditures and Funding to Reserves				
Compensation and Benefits	1,789,700	1,813,000	1,921,000	108,000
Administration Expenses	165,100	165,100	153,100	(12,000)
Insurance	201,000	60,000	65,000	5,000
Property Taxes	285,200	305,200	314,200	9,000
Other Operating Expenses	513,600	528,600	528,600	-
Total OPERATING Expenditures	**2,954,600**	**2,871,900**	**2,981,900**	
Total CAPITAL Expenditures				
Ecological Restoration		100,000		(100,000)
Total SPECIAL PROJECT Expenditures	**0**	**100,000**	**0**	
Forestry/Master Plans/Transition	0	0	0	
Land Sale Proceeds	0	0	0	
Total FUNDING to RESERVES	**0**	**0**	**0**	
TOTAL EXPENDITURES AND FUNDING TO RESERVES	**2,954,600**	**2,971,900**	**2,981,900**	**10,000**
Funding				(INCR)/DECR
Municipal				
Municipal Apportionment (levy)	2,712,600	2,629,900	2,739,900	(110,000)
Self Generated				
Timber Sales	15,000	15,000	15,000	0
Donations - Foundation	27,000	127,000	27,000	100,000
Funding From Reserves				
Land (Demolitions)	100,000	100,000	100,000	0
Transition Reserve (Staffing)	100,000	100,000	100,000	0
TOTAL REVENUE	**2,954,600**	**2,971,900**	**2,981,900**	**(10,000)**
Net Surplus/(Deficit)	**0**	**0**	**0**	**0**

GRAND RIVER CONSERVATION AUTHORITY

P&S #6 - Source Protection Program

BUDGET 2025

	NEW REGS Budget 2023	NEW REGS Budget 2024	NEW REGS Budget 2025	Budget Change
	(draft Oct version)			
How much does it cost, and who pays for it?				INCR/(DECR)
Expenditures				
Compensation and Benefits	490,000	490,000	615,000	125,000
Administration Expenses	50,000	50,000	45,000	(5,000)
Other Operating Expenses	90,000	90,000	50,000	(40,000)
Water Budget - Technical Studies	10,000	204,000	70,000	(134,000)
TOTAL EXPENDITURES	**640,000**	**834,000**	**780,000**	**(54,000)**
Funding				(INCR)/DECR
Government Grants				
Provincial	640,000	834,000	780,000	54,000
TOTAL FUNDING	**640,000**	**834,000**	**780,000**	**54,000**
Net Surplus/(Deficit)	**0**	**0**	**0**	**0**

GRAND RIVER CONSERVATION AUTHORITY

P&S #7 General Operating Expense

BUDGET 2025

	NEW REGS Budget 2023 (draft Oct version)	NEW REGS Budget 2024	NEW REGS Budget 2025	Budget Change
How much does it cost, and who pays for it?				INCR/(DECR)
Expenditures and Funding to Reserves				
Compensation and Benefits	2,327,500	2,441,000	2,490,000	49,000
Administration Expenses	370,000	460,000	393,000	(67,000)
Insurance	63,500	334,500	298,000	(36,500)
Other Operating Expenses	804,788	1,102,214	804,688	(297,526)
LESS: Recovery of Corporate Services Expenses	(70,000)	(70,000)	(70,000)	-
Total OPERATING Expenditures	**3,495,788**	**4,267,714**	**3,915,688**	
Interest Income	1,250,000	2,050,000	2,050,000	-
Total FUNDING to RESERVES	**1,250,000**	**2,050,000**	**2,050,000**	
TOTAL EXPENDITURES AND FUNDING TO RESERVES	**4,745,788**	**6,317,714**	**5,965,688**	**(352,026)**
Funding			**4,165,688**	(INCR)/DECR
Municipal				
Municipal Apportionment (levy)	3,253,588	3,310,888	3,338,888	(28,000)
Self Generated				
Investment Income	1,350,000	2,200,000	2,300,000	(100,000)
Personnel	65,000	65,000	65,000	0
TOTAL REVENUE	**4,668,588**	**5,575,888**	**5,703,888**	**(128,000)**
Net Surplus/(Deficit)	**(77,200)**	**(741,826)**	**(261,800)**	**(480,026)**

GRAND RIVER CONSERVATION AUTHORITY

P&S #8 - Watershed Services - CAT 2

BUDGET 2025

How much does it cost, and who pays for it?	NEW REGS Budget 2023 (draft Oct version)	NEW REGS Budget 2024	NEW REGS Budget 2025	Budget Change INCR/(DECR)
Expenditures and Funding to Reserves				
Compensation and Benefits	825,100	850,000	885,000	35,000
Administration Expenses	117,900	118,000	118,000	-
Other Operating Expenses	100,000	100,000	100,000	-
Total OPERATING Expenditures	**1,043,000**	**1,068,000**	**1,103,000**	
RWQP Grants	800,000	800,000	800,000	-
Waste Water Optimization Project		130,000		(130,000)
Species at Risk			70,000	
Nature Smart Climate Solutions		85,000		(85,000)
Upper Blair Subwatershed Study		80,000		(80,000)
Total SPECIAL PROJECT Expenditures	**800,000**	**1,095,000**	**870,000**	
TOTAL EXPENDITURES AND FUNDING TO RESERVES	**1,843,000**	**2,163,000**	**1,973,000**	**(260,000)**
Funding				(INCR)/DECR
Municipal				
Memorandums of Understanding Apportionment	992,000	1,017,000	1,052,000	(35,000)
Municipal Other	850,000	930,000	850,000	80,000
Government Grants				
Other Provincial	0	130,000	0	130,000
Federal	0	85,000	70,000	15,000
Funding From Reserves				
Cambridge Desiltation Pond	1,000	1,000	1,000	0
TOTAL REVENUE	**1,843,000**	**2,163,000**	**1,973,000**	**190,000**
Net Surplus/(Deficit)	**0**	**0**	**0**	**(70,000)**

GRAND RIVER CONSERVATION AUTHORITY

P&S #9 Burford Tree Nursery & Planting Services

BUDGET 2025

	NEW REGS Budget 2023 (draft Oct version)	NEW REGS Budget 2024	NEW REGS Budget 2025	Budget Change
How much does it cost, and who pays for it?				INCR/(DECR)
Expenditures and Funding to Reserves				
Compensation and Benefits	278,000	287,000	296,000	9,000
Administration Expenses	30,900	30,900	20,400	(10,500)
Other Operating Expenses	558,400	675,000	696,000	21,000
Total OPERATING Expenditures	**867,300**	**992,900**	**1,012,400**	
TOTAL EXPENDITURES AND FUNDING TO RESERVES	**867,300**	**992,900**	**1,012,400**	**19,500**
Funding				(INCR)/DECR
Self Generated				
Burford Nursery	400,000	450,000	450,000	-
Landowner Contributions (Tree Planting)	180,000	230,000	230,000	-
TOTAL REVENUE	580,000	680,000	680,000	0
Net Surplus/(Deficit)	(287,300)	(312,900)	(332,400)	19,500

GRAND RIVER CONSERVATION AUTHORITY

P&S #10 - Conservation Services

BUDGET 2025

How much does it cost, and who pays for it?	NEW REGS Budget 2023 (draft Oct version)	NEW REGS Budget 2024	NEW REGS Budget 2025	Budget Change INCR/(DECR)
Expenditures and Funding to Reserves				
Compensation and Benefits	26,000	27,000	28,000	1,000
Administration Expenses	33,200	33,200	36,200	3,000
Other Operating Expenses	22,000	22,000	22,000	-
Total OPERATING Expenditures	**81,200**	**82,200**	**86,200**	
Total CAPITAL Expenditures				
Mill Creek Rangers Program		35,000	35,000	-
Species at Risk	40,000	70,000	-	(70,000)
Brant/Brantford Water Festival		45,000	45,000	-
Profit Mapping	-	35,000		(35,000)
Total SPECIAL PROJECT Expenditures	**40,000**	**185,000**	**80,000**	
Transition	-	-	-	
Total FUNDING to RESERVES	**-**	**-**	**-**	
TOTAL EXPENDITURES AND FUNDING TO RESERVES	**121,200**	**267,200**	**166,200**	**(101,000)**
Funding				(INCR)/DECR
Municipal				
Municipal-Other		10,000	10,000	-
Government Grants				
Other Provincial	30,000	100,000	65,000	35,000
Federal	40,000	70,000	0	70,000
Self Generated				
Donations - Foundation		35,000	35,000	-
TOTAL REVENUE	**70,000**	**215,000**	**110,000**	**105,000**
Net Surplus/(Deficit)	**(51,200)**	**(52,200)**	**(56,200)**	**4,000**

GRAND RIVER CONSERVATION AUTHORITY

P&S #11 - Outdoor Environmental Education

BUDGET 2025

	NEW REGS Budget 2023 (draft Oct version)	NEW REGS Budget 2024	NEW REGS Budget 2025	Budget Change
How much does it cost, and who pays for it?				INCR/(DECR)
Expenditures and Funding to Reserves				
Compensation & Benefits	574,500	642,000	672,000	30,000
Administration Expenses	57,000	57,000	68,000	11,000
Other Operating Expenses	143,600	213,000	213,000	-
Total OPERATING Expenditures	**775,100**	**912,000**	**953,000**	
Guelph Lake Nature Centre		500,000		(500,000)
Total SPECIAL PROJECT Expenditures	**0**	**500,000**	**0**	
TOTAL EXPENDITURES AND FUNDING TO RESERVES	**775,100**	**1,412,000**	**953,000**	**(459,000)**
Funding				(INCR)/DECR
Self Generated				
Donations - Foundation		500,000	0	500,000
Nature Centre Revenue - Schools	500,000	600,000	600,000	0
Funding from Reserves				
Transition Reserve	275,100	312,000	353,000	(41,000)
TOTAL REVENUE	**775,100**	**1,412,000**	**953,000**	**459,000**
Net Surplus/(Deficit)	**0**	**0**	**0**	**0**

GRAND RIVER CONSERVATION AUTHORITY

P&S #12 - Property Rentals

BUDGET 2025

	NEW REGS Budget 2023 (draft Oct version)	NEW REGS Budget 2024	NEW REGS Budget 2025	Budget Change
How much does it cost, and who pays for it?				INCR/(DECR)
Expenditures and Funding to Reserves				
Compensation and Benefits	456,000	470,000	473,000	3,000
Administration Expenses	37,500	37,500	35,000	(2,500)
Other Operating Expenses	601,700	601,700	601,700	-
Total OPERATING Expenditures	**1,095,200**	**1,109,200**	**1,109,700**	
TOTAL EXPENDITURES AND FUNDING TO RESERVES	**1,095,200**	**1,109,200**	**1,109,700**	**500**
Funding				(INCR)/DECR
Self Generated				
Belwood	1,040,000	1,066,000	1,087,000	(21,000)
Conestogo	1,245,000	1,276,000	1,302,000	(26,000)
Agricultural	250,000	250,000	270,000	(20,000)
Residential	110,000	110,000	115,000	(5,000)
Miscellaneous	336,000	336,000	356,000	(20,000)
TOTAL REVENUE	**2,981,000**	**3,038,000**	**3,130,000**	**(92,000)**
Net Surplus/(Deficit)	**1,885,800**	**1,928,800**	**2,020,300**	**(91,500)**

GRAND RIVER CONSERVATION AUTHORITY

P&S #13 - Hydro Production

BUDGET 2025

	NEW REGS Budget 2023 (draft Oct version)	NEW REGS Budget 2024	NEW REGS Budget 2025	Budget Change
How much does it cost, and who pays for it?				INCR/(DECR)
Expenditures and Funding to Reserves				
Compensation and Benefits	70,000	70,000	70,000	
Other Operating Expenses	25,500	25,500	25,500	
Total OPERATING Expenditures	**95,500**	**95,500**	**95,500**	
General Capital/Land Sale Proceeds	116,500	116,500	66,500	
Total FUNDING to RESERVES	**116,500**	**116,500**	**66,500**	
TOTAL EXPENDITURES AND FUNDING TO RESERVES	**212,000**	**212,000**	**162,000**	**0**
Revenue				(INCR)/DECR
Government Grants				
Provincial	0	0	0	
Self Generated				
Hydro Production-Belwood	265,000	265,000	315,000	
Hydro Production-Conestogo	260,000	260,000	160,000	
Hydro Production-Guelph	40,000	40,000	40,000	
Hydro Production-Elora	15,000	15,000	15,000	
Miscellaneous Income	0	0	0	
Funding from Reserves				
Land Sale Proceeds	0	0	0	
TOTAL REVENUE	**580,000**	**580,000**	**530,000**	**0**
Net Surplus/(Deficit)	**368,000**	**368,000**	**368,000**	**0**

GRAND RIVER CONSERVATION AUTHORITY

P&S #14 - Conservation Areas

BUDGET 2025

	NEW REGS Budget 2023 (draft Oct version)	NEW REGS Budget 2024	NEW REGS Budget 2025	Budget Change
How much does it cost, and who pays for it?				INCR/(DECR)
Expenditures and Funding to Reserves				
Compensation and Benefits	5,033,000	5,774,000	6,017,000	243,000
Administration Expenses	215,000	220,000	253,000	33,000
Property Tax	65,000	65,000	65,000	-
Other Operating Expenses	3,724,000	3,723,000	3,981,000	258,000
Total OPERATING Expenditures	**9,037,000**	**9,782,000**	**10,316,000**	
Total CAPITAL Expenditures	**2,000,000**	**2,000,000**	**2,000,000**	-
TOTAL EXPENDITURES AND FUNDING TO RESERVES	**11,037,000**	**11,782,000**	**12,316,000**	**534,000**
Funding				(INCR)/DECR
Self Generated		**check**		
Brant	1,100,000	1,175,000	1,175,000	0
Byng Island	1,000,000	1,100,000	1,100,000	0
Belwood Lake	400,000	375,000	375,000	0
Conestogo Lake	550,000	600,000	600,000	0
Elora Gorge	2,000,000	2,300,000	2,800,000	(500,000)
Elora Quarry	450,000	450,000	450,000	0
Guelph Lake	1,300,000	1,400,000	1,400,000	0
Laurel Creek	650,000	650,000	650,000	0
Pinehurst Lake	850,000	900,000	900,000	0
Rockwood	1,250,000	1,300,000	1,300,000	0
Shade's Mills	450,000	450,000	450,000	0
Total Fee Revenue	10,000,000	10,700,000	11,200,000	(500,000)
Miscellaneous Income (Luther)	71,000	71,000	71,000	0
Funding From Reserves				
Gravel	1,000	1,000	1,000	0
Conservation Areas - Capital Projects	500,000	500,000	500,000	0
TOTAL REVENUE	**10,572,000**	**11,272,000**	**11,772,000**	**(500,000)**
Net Surplus/(Deficit)	**(465,000)**	**(510,000)**	**(544,000)**	**34,000**

GRAND RIVER CONSERVATION AUTHORITY

P&S #15 - Administrative Support - CATEGORY 3

BUDGET 2025

	NEW REGS Budget 2023 (draft Oct version)	NEW REGS Budget 2024	NEW REGS Budget 2025	Budget Change
How much does it cost, and who pays for it?				INCR/(DECR)
Expenditures and Funding to Reserves				
Compensation and Benefits	648,600	668,000	706,000	38,000
Administration Expenses	100,900	100,900	139,400	38,500
Insurance	208,500	208,500	208,500	-
Other Operating Expenses	240,000	240,000	240,000	-
LESS: Recovery of Corporate Services Expenses				
Total OPERATING Expenditures	**1,198,000**	**1,217,400**	**1,293,900**	
TOTAL EXPENDITURES AND FUNDING TO RESERVES	**1,198,000**	**1,217,400**	**1,293,900**	**76,500**
Funding				
TOTAL REVENUE	**0**	**0**	**0**	**0**
Net Surplus/(Deficit)	**(1,198,000)**	**(1,217,400)**	**(1,293,900)**	**76,500**

GRAND RIVER CONSERVATION AUTHORITY

Supplementary Information - Information Systems and Motor Pool

BUDGET 2025

	NEW REGS Budget 2023 (draft Oct version)	NEW REGS Budget 2024	NEW REGS Budget 2025	Budget Change
How much does it cost, and who pays for it?				INCR/(DECR)
Expenditures				
Information Systems				
Compensation and Benefits	1,290,000	1,329,000	1,394,000	65,000
Administrative Expenses	25,500	25,500	25,500	-
Software and Hardware Maintenance	187,500	187,500	187,500	-
Supplies and Services	54,000	54,000	54,000	-
Total OPERATING Expenditures	**1,557,000**	**1,596,000**	**1,661,000**	
Capital Expenses	**170,000**	**300,000**	**300,000**	-
LESS Internal Charges	**(1,437,000)**	**(1,437,000)**	**(1,532,000)**	(95,000)
NET Unallocated Expenses	**290,000**	**459,000**	**429,000**	**(30,000)**
Motor Pool				
Compensation and Benefits	312,000	321,000	330,000	9,000
Administrative Expenses	26,000	26,000	26,000	-
Insurance	50,600	63,000	63,000	-
Motor Pool Building and Grounds Maintenance	10,400	10,000	10,000	-
Equipment, Repairs and Supplies	286,000	336,000	336,000	-
Fuel	254,000	284,000	284,000	-
Total OPERATING Expenditures	**939,000**	**1,040,000**	**1,049,000**	
Capital Expenses	**375,000**	**675,000**	**675,000**	-
LESS Internal Charges	**(1,300,000)**	**(1,300,000)**	**(1,400,000)**	(100,000)
NET Unallocated Expenses	**14,000**	**415,000**	**324,000**	**(91,000)**
TOTAL EXPENDITURES	**304,000**	**874,000**	**753,000**	**(121,000)**
Funding				
TOTAL REVENUE	**0**	**0**	**0**	
Gross Surplus (Deficit)	(304,000)	(874,000)	(753,000)	
Funding From Reserves	3,041,000	3,611,000	3,685,000	
Funding to Reserves	(2,737,000)	(2,737,000)	(2,932,000)	
Net Surplus/(Deficit)	**0**	**0**	**0**	

Administration Centre: 400 Clyde Road, P.O. Box 729 Cambridge, ON N1R 5W6

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October 17, 2024

Honourable Graydon Smith, MPP
Ministry of Natural Resources and Forestry
Whitney Block, 99 Wellesley Street West
Toronto, Ontario M7A 1W3

By email: minister.mnrf@ontario.ca

Dear Minister Smith:

The General Membership of the Grand River Conservation Authority (GRCA) requests that the freeze to Conservation Authority fees associated with planning, development, and permitting be lifted as of December 31, 2024.

The inability of the GRCA to increase fees to partially offset program and delivery costs requires greater reliance on municipal apportionment. The GRCA undertook a Program Rates and User Fee Review completed by Watson and Associates Economists Ltd. on October 12, 2023, and has been unable to implement any of the recommendations as a result of the fee freeze.

Conservation Authorities are partners in ensuring that development can happen in a timely, safe manner. We support Conservation Authorities, particularly the Grand River Conservation Authority, partially offsetting program costs through user fees and request that you grant us the ability to do so. Failing that, we ask that the Ministry allow Conservation Authorities to apply a cost-of-living increase to 2024 fees for the following budget year or provide additional funding through the transfer payments to Conservation Authorities.

Thank you for your consideration.

Yours sincerely,

Chris White, Chair

Grand River Conservation Authority

Report number: GM-10-24-88

Date: October 25, 2024

To: Members of the Grand River Conservation Authority

Subject: Budget 2025 – Draft #1 – Municipal Apportionment

Recommendation:

THAT Report Number GM-10-24-88 – Budget 2025 – Draft #1 – Municipal Apportionment be received as information.

Summary:

The distribution of the proposed 2025 Municipal Apportionment to participating municipalities is attached, based on the first draft of the 2025 Budget.

Report:

Ontario Regulation 402/22: Budget and Apportionment, which came into effect July 1, 2023, details the Conservation Authority (CA) budget process and municipal apportionment.

Different apportionment methodologies are available depending on the category of expense. General operating expenses are to be apportioned using Modified Current Value Assessment (MCVA). General capital expenses may be apportioned using MCVA or by agreement. Category 1 operating and capital expenses may be apportioned using MCVA or by benefit-based apportionment agreements. Category 2 operating and capital costs are to be apportioned based on the methodology agreed to in the Memorandum of Understanding (MOU). Where Category 3 operating and capital costs are apportioned to municipalities, that calculation may be determined by MCVA, MOU, or benefit-based apportionment agreement.

At the Grand River Conservation Authority, municipal apportionment is allocated to participating municipalities based on Modified Current Value Assessment (2024 assessment) information in the watershed, which the Ministry of Natural Resources (MNR) provided.

Using the 2024 assessment information provided, the resulting apportionment of the proposed 2025 Municipal Apportionment based on the first draft of the 2025 budget is attached. The operating expenses are categorized as General, Category 1, and Category 2.

Financial Implications:

The first draft of the 2025 Budget proposes a municipal apportionment amount of $13,757,000, representing an increase of $465,000, or 3.5%, over 2024. After allocating this amount in accordance with O.Reg. 402/22, individual municipalities will experience increases ranging from 1.6% to 7.5% compared to 2024.

Other Department Considerations:

Not Applicable

Prepared by:

Karen Armstrong
Deputy CAO/Secretary-Treasurer

Approved by:

Samantha Lawson
Chief Administrative Officer

Grand River Conservation Authority
Summary of Municipal Apportionment - 2025 Budget

DRAFT - October 2024

	% CVA in Watershed	2024 CVA (Modified)	CVA in Watershed	CVA-Based Apportionment	2025 Budget General Operating Expenses*	2025 Budget Category 1 Operating Expenses*	2025 Budget Category 2 Operating Expenses*	2025 Budget Total Apportionment	2024 Actual Total Apportionment	% Change
Brant County	82.9%	7,956,819,370	6,596,203,258	3.03%	101,217	283,929	31,891	417,037	395,639	5.4%
Brantford C	100.0%	16,110,222,385	16,110,222,385	7.40%	247,206	693,453	77,888	1,018,547	987,407	3.2%
Amaranth Twp	82.0%	858,651,370	704,094,123	0.32%	10,804	30,307	3,404	44,515	42,773	4.1%
East Garafraxa Twp	80.0%	698,985,395	559,188,316	0.26%	8,581	24,070	2,704	35,355	32,895	7.5%
Town of Grand Valley	100.0%	637,941,807	637,941,807	0.29%	9,789	27,460	3,084	40,333	39,251	2.8%
Melancthon Twp	56.0%	636,708,237	356,556,612	0.16%	5,471	15,348	1,724	22,543	21,692	3.9%
Southgate Twp	6.0%	1,226,384,688	73,583,081	0.03%	1,129	3,167	356	4,652	4,386	6.1%
Haldimand County	41.0%	7,744,135,997	3,175,095,759	1.46%	48,721	136,670	15,351	200,742	192,819	4.1%
Norfolk County	5.0%	9,992,562,732	499,628,137	0.23%	7,667	21,506	2,416	31,589	30,988	1.9%
Halton Region	10.6%	50,597,805,213	5,374,240,578	2.47%	82,466	231,330	25,983	339,779	325,623	4.3%
Hamilton City	26.8%	99,914,929,873	26,727,243,741	12.28%	410,121	1,150,455	129,219	1,689,795	1,639,233	3.1%
Oxford County	35.9%	4,736,170,991	1,700,479,619	0.78%	26,093	73,196	8,221	107,510	105,841	1.6%
North Perth T	2.0%	2,555,744,512	51,114,890	0.02%	784	2,200	247	3,231	3,115	3.7%
Perth East Twp	40.0%	2,138,784,312	855,513,725	0.39%	13,128	36,825	4,136	54,089	52,608	2.8%
Region of Waterloo	100.0%	110,087,538,563	110,087,538,563	50.59%	1,689,258	4,738,637	532,243	6,960,138	6,710,728	3.7%
Centre Wellington Twp	100.0%	5,678,028,668	5,678,028,668	2.61%	87,128	244,407	27,452	358,987	344,247	4.3%
Erin T	49.0%	2,665,324,254	1,306,008,884	0.60%	20,040	56,216	6,314	82,570	80,462	2.6%
Guelph C	100.0%	29,061,812,848	29,061,812,848	13.36%	445,944	1,250,945	140,506	1,837,395	1,788,751	2.7%
Guelph Eramosa Twp	100.0%	3,023,807,383	3,023,807,383	1.39%	46,399	130,158	14,619	191,176	186,515	2.5%
Mapleton Twp	95.0%	1,950,508,544	1,852,983,117	0.85%	28,433	79,760	8,959	117,152	114,764	2.1%
Wellington North Twp	51.0%	1,881,548,776	959,589,876	0.44%	14,725	41,305	4,639	60,669	58,619	3.5%
Puslinch Twp	75.0%	2,935,530,680	2,201,648,010	1.01%	33,784	94,768	10,644	139,196	133,644	4.2%
Total		**363,089,946,596**	**217,592,523,382**	**100.00%**	**3,338,888**	**9,366,112**	**1,052,000**	**13,757,000**	**13,292,000**	**3.5%**

**Operating Expenses include maintenance of capital infrastructure, studies, and/or equipment.*

Grand River Conservation Authority

Report number: GM-10-24-93

Date: October 25, 2024

To: Members of the Grand River Conservation Authority

Subject: Planning and Regulations Fees

Recommendation:

WHEREAS staff were directed through Resolution 24-146 to prepare a fee structure to reach 85% cost recovery for permits in 2025, and a fee structure to reach 100% cost recovery for Plan Review and Regulations fees in a reasonable timeframe;

AND WHEREAS fee amendments require approval by the General Membership;

BE IT RESOLVED THAT the Grand River Conservation Authority provide direction on the fee structure and implementation timeline as presented in report GM-10-24-93;

AND THAT staff bring forward a Fee Schedule at the next General Membership meeting.

Summary:

As a Category 1 (mandatory) program and service, the Planning and Regulations program is currently funded through municipal apportionment and user fees. As per the 'Policy: Minister's list of classes of programs and services in respect of which conservation authorities (CAs) may charge a fee', fees for permitting and planning services should be developed to recover but not exceed the costs associated with administering and delivering the services on a program basis. Each authority can decide the proportion of costs recovered by a user fee versus other sources such as municipal apportionment (formerly known as General Levy).

On September 27, 2024, GM Report 09-24-81 was presented which proposed user fee cost recovery targets. Direction from the Board was provided to bring forward all proposed fee schedules to the next General Membership meeting as part of the budget process. Specifically for Planning and Regulations fees, the Board requested the following information be included:

a) What the fee structure would be with 85% cost recovery on permit fees effective immediately
b) Timetable showing plan or timetable to achieve 100% cost recovery in a reasonable timeframe
c) Appendix showing actual comparable fees in other CAs
d) And an addendum showing potential fees for Environmental Assessments (EAs).

Staff have undertaken further review related to user fees, and seek Board direction/approval of the following items:

1) User Fee cost recovery targets for Regulations (permitting and inquiries).
    - Appendix A presents information on cost recovery targets of 65% (current fee), 85%, and 100% and Report GM-09-24-81 provided information on a 90% cost recovery.
2) New permit fees
    a. Routine Permits
    b. Inquiries – Introduce 2 fees; one to remain at current rate, one increased to achieve greater cost recovery for title clearances and real estate inquiries

3) Confirmation of 100% cost recovery target for Plan Review (Planning Act and Aggregate Act applications)

4) New plan review fees
   a. Niagara Escarpment Commission circulation
   b. Environmental Assessments
   c. Drainage Act applications

5) Timeframe for phased implementation
   - 5 year phase-in period is recommended and shown in Appendices B and D

6) Proposed amendments to Fee Schedules/Notes
   a. Revise fees for 4th and subsequent submissions of same report/plan for both permitting and plan review from flat fee of $575 to percentage of applicable fee category. The 4th submission would be charged 25% of the applicable fee category, and subsequent submissions would be charged 50% of the applicable fee category.
   b. Permit closure if no re-submission received within 1 year of review comments issued
   c. Add Minister's Zoning orders as a type of complex application fee in Plan Review Fee Schedule Notes.

Report:

The Planning and Regulations program is a mandatory service that provides a watershed benefit by regulating development and undertaking review of applications/proposals in and near natural hazards to reduce the risk of loss of life and minimize property damage. The program includes proactive planning (ie. plan input and policy advice), review of *Planning Act* and other applications, as well as the permit process, public inquiries, title clearances, compliance and enforcement.

As per the 'Policy: Minister's list of classes of programs and services in respect of which Conservation Authorities (CAs) may charge a fee', fees for planning and permitting services should be developed to recover but not exceed the costs associated with administering and delivering the services on a program basis. Each authority can decide the proportion of costs recovered by a user fee versus other sources such as municipal apportionment (formerly known as General Levy).

GM-12-23-101 was presented to the General Membership on December 15, 2023. The report proposed changes for 2024 permit and planning fees, taking into consideration the recommendations of a Program Rates and User Fee Review (User Fee Review) completed by Watson and Associates Economists Ltd. (Watson), dated October 12, 2023. The consultant assessed the full cost for certain planning services and permitting activities and provided recommendations considering cost recovery, affordability of fees, and comparison with municipal and fee schedules of other CAs.

On December 13, 2023, a Minister's Direction to freeze fees from January 1, 2023 to December 31, 2023 was extended to December 31, 2024. The Grand River Conservation Authority had approved fee changes for 2023 prior to January 1, 2023 (Report GM-12-22-98), therefore the fee freeze only impacted 2024 and the proposed fee changes were not able to be implemented. At this time, it is unknown if the Minister's Direction will be extended again.

In the event CAs are permitted to make fee changes in 2025, report GM-09-24-81 was presented to the General Membership on September 27, 2024 seeking approval of the following cost recovery targets previously proposed in December 2023:

- cost recovery target of 65% for Regulations fees (permits and inquiries)
- cost recovery targets of 100% for Plan Review fees (Planning Act and Aggregate Act applications)

Information on a potential alternative cost recovery target of 90% for Regulations fees was also presented, as well as the potential introduction of new fees for other planning services currently funded through municipal apportionment (applications circulated by the Niagara Escarpment Commission, EAs and Drainage Act applications).

Direction from the Board was provided to bring forward all proposed fee schedules to the next General Membership meeting as part of the budget process. Specifically for Planning and Regulations fees, the Board requested the following information be included:

a) What the fee structure would be with 85% cost recovery on permit fees effective immediately
b) Timetable showing plan or timetable to achieve 100% cost recovery in a reasonable timeframe
c) Appendix showing actual comparable fees in other CAs
d) And an addendum showing potential fees for EAs.

Regulations Fees (Permitting and Inquiries)

As outlined in previous reports, the cost recovery target for permitting and inquiries was historically 50%. The User Fee Review determined the current (2022) cost recovery was 65%, and staff had recommended that target be maintained. In response to direction provided by the Board at the September 27, 2024 meeting, staff have prepared several appendices to provide the requested information to inform a decision on a cost recovery target which will be used to finalize a fee schedule for 2025.

Staff have also undertaken a review of the fees at the requested higher cost recovery targets and propose two new fee categories. A “routine” permit category is proposed for development that is very low risk, small in project scope, and requires limited staff involvement. This will provide a fee category for applications that do not warrant a “minor” fee at the 100% cost recovery of $660. Several comparable Conservation Authority fees for a “routine” permit or letter of permission for development such as small accessory structures (e.g. shed) are shown in Appendix C. For municipal comparators, the cost of a building permit for a shed is $130 in the City of Guelph, $105 in the City of Brantford and $95 in the City of Kitchener.

The second new fee category proposed is for written inquiries. Currently, there is one inquiry fee for all written responses, including title clearances (solicitor), real estate and landowner inquiries. The User Fee Review considered the implementation of two inquiry fees; one increased to a 100% cost recovery for title clearances and real estate inquiries, and one remaining at the current rate for other inquiries. Staff recommend implementing two inquiry fees, as maintaining a lower fee encourages early consultation with landowners so GRCA input is provided early in project planning, and development doesn’t proceed and become a compliance issue. Staff also recommend new text be added to the Regulations Fee Schedule notes, to advise applicants that permit applications will be closed if additional information requested by GRCA staff is not submitted within 1 year. No refunds will be provided upon file closure.

To provide the specific information requested in the September 27, 2024 meeting, Appendix A provides a fee structure illustrating current fees (65% cost recovery) compared to 85% cost recovery and 100% cost recovery. No increases are required to achieve 85% cost recovery for some major permits and large fill fees as these individual fees are already in line with the User Fee Review recommendations.

Appendix B illustrates a potential permit and inquiry fee schedule and timetable to evenly spread out the increases required to achieve 100% cost recovery over a reasonable timeframe, which staff recommends is 5 years. While not currently included in the fee schedules, the User Fee Review recommended annual consideration of a cost-of-living increase. For 2025, staff

recommend a 3% cost-of-living increase and if approved, this amount would be added to the fee schedules.

Appendix C shows actual comparable Regulations fees (permits and inquiries) of other CAs for several fee categories. Fees amongst the CAs vary significantly, reflective of cost recovery targets and direct and indirect costs of delivering the planning and regulations programs at each individual CA.

Planning Fees (Plan Review)

As outlined in previous reports, the cost recovery target for plan review services (*Planning Act* and *Aggregate Act* applications) was historically 100%. The User Fee Review determined the cost recovery was 56% for certain planning services. Staff had recommended that a 100% target is appropriate.

Appendix D illustrates a potential fee schedule and timetable to evenly spread out the increase required to achieve a 100% cost recovery target for plan review over a 5 year period. No increases for *Aggregate Act* applications are proposed as the fees were already in line with the consultant recommendations. While not currently included in the Fee Schedules, the User Fee Review recommended annual consideration of a cost-of-living increase. For 2025, staff recommend a 3% cost-of-living increase and if approved, this amount would be added to the fee schedules.

To provide the specific information requested in the September 27, 2024 meeting, staff have included in Appendix D new potential fees to be phased in for the review of applications within the Niagara Escarpment Plan boundary circulated by the Niagara Escarpment Commission, the review of municipal or Provincial EAs and the review of applications under the Drainage Act (excluding maintenance/minor repair of existing drains). For the review of individual EAs, the fee would be determined by the level of staff involvement/technical review required. Upon review, staff also propose consideration of a new fee for review of Minister's Zoning orders (MZO). It is proposed to consider MZOs as a complex plan review application and charge accordingly.

Appendix E shows comparable Plan Review fees of other CAs for EAs and Drainage Act applications.

Staff also propose a change that impacts both permitting and plan review as it relates to re-submissions. For the 4th submission of the same report or plans, it is proposed that instead of the current flat fee of $575 per 4th submission or subsequent submissions for subdivision and condominium applications, that there be additional charge of 25% of the applicable fee category for all plan review and permit categories, and for the 5th and subsequent submissions, there be a charge of an additional 50% of the applicable fee category. This will encourage high quality submissions and that a comprehensive response to GRCA comments is provided. This fee would be implemented at the discretion of staff, for example, if the 4th submission is required to address municipal comments, staff would not charge the additional review fee.

In summary, staff seek Board direction/approval of the following items:

1) User Fee cost recovery targets for Regulations (permitting and inquiries).
    - Appendix A presents information on cost recovery targets of 65% (current fee), 85%, and 100% and Report GM-09-24-81 provided information on a 90% cost recovery.
2) New permit fees
    a. Routine Permits
    b. Inquiries – Introduce 2 fees; one to remain at current rate, one increased to achieve greater cost recovery for title clearances and real estate inquiries

3) Confirmation of 100% cost recovery target for Plan Review (*Planning Act* and *Aggregate* Act applications)

4) New plan review fees
    a. Niagara Escarpment Commission circulation
    b. Environmental Assessments
    c. Drainage Act applications

5) Timeframe for phased implementation
   5 year phase-in period is recommended and shown in Appendices B and D

6) Proposed amendments to Fee Schedules/Notes
    a. Revise fees for 4th and subsequent submissions of same report/plan for both permitting and plan review from flat fee of $575 to percentage of applicable fee category. The 4th submission would be charged 25% of the applicable fee category, and subsequent submissions would be charged 50% of the applicable fee category.
    b. Permit closure if no re-submission received within 1 year of review comments issued
    c. Add Minister's Zoning orders as a type of complex application fee in Plan Review Fee Schedule Notes.

Financial Implications:

The draft 2025 budget will be updated to reflect the final Fee Schedule. The Planning and Regulations budgets have historically been conservative given the uncertainty of costs and revenue which is due to several factors, including legislative changes, staffing vacancies, economic conditions and variability in the number and type of applications received. Forecast adjustments are incorporated into monthly financial reporting to the Board as applicable.

In response to a question raised at the September 27, 2024 meeting, Table 1 below outlines the revenue impacts for certain cost recovery scenarios using information from the User Fee Review.

Table 1: Potential Additional Revenue based on Cost Recovery Targets

Cost Recovery Targets	Potential Additional Revenue
85% for both permitting and plan review	$550,000
90% for permitting and 100% for plan review	$800,000
100% for both permitting and plan review	$900,000

The additional revenue estimates are based on the average number of applications from 2017-2021 and would be spread over the 5 year phase-in implementation period. The actual additional revenue is uncertain and we are also seeing a downward trend for revenue.

The cost recovery targets are only for regulations and planning services that are charged a user fee, being permitting and written inquiries, and plan review consisting of *Planning Act, Aggregate Act* and potentially Niagara Escarpment Commission circulations, Environmental Assessments, Drainage Act and MZOs. The remainder of services in the Regulations and Planning program would be funded from municipal apportionment, including plan input, compliance and enforcement. Plan input enables staff to proactively address natural hazards by providing input to watershed municipalities without charging a fee per project/circulation for review of municipal plans and policies such as Official Plan and Comprehensive Zoning By-law documents, Secondary/Block/Community Plans, review of planning amendments initiated by municipalities, as well as policy and technical support at appeal hearings. The compliance and

enforcement program enables staff to regulate development in and near natural hazards to reduce the risk of loss of life and minimize property damage, complete inspections and investigations and undertake enforcement measures.

Other Department Considerations:

Staff from other departments that are involved in permitting and planning are accounted for in the direct and indirect costs.

Prepared by:

Beth Brown
Manager of Planning and Regulations Services

Approved by:

Samantha Lawson
Chief Administrative Officer

Appendix A

Comparison of Regulations Fees Cost Recovery Targets			
Table 1: Permit Fee Schedule	***Current Fee 65% Cost Recovery***	****85% Cost Recovery***	****100% Cost Recovery***
NEW *Routine:* *Very low risk of impact on regulated features. Very small project scope. No detailed report/plans or site visit.*			
Fee for Development, Alterations or Interference with Wetlands, Shorelines and Watercourses Applications	N/A	$230	$275
Minor: *Low risk of impact on regulated features. No technical reports required.*			
Fee for Development, Alterations or Interference with Wetlands, Shorelines and Watercourses Applications	$465	$470	$660
Intermediate: *Moderate risk and/or potential impact on regulated features. Detailed report/plans, and/or site visit required*			
Fee for Development Applications	$675	$1,415	$1,665
Fee for Alterations or Interference with Wetlands, Shorelines and Watercourses Applications	$1,185	$1,416	$1,665
Major: *Requires one or more reports (Environmental Impact Study, Hydraulic Analysis, Stormwater Management, Geotechnical, etc.)*			
Fee for Development Applications	$10,230	N/A	$11,365
Fee for Alterations or Interference with Wetlands, Shorelines and Watercourses Applications			
Culvert/Bridge replacement	$6,710	$9,660	$11,365
All other applications	$10,230	N/A	$11,365
Large Fill: over 1,000m^3	$10,230 plus $0.50/m^3	N/A	$11,365 plus $0.55/m3
Works initiated prior to GRCA approval	2 times the fee for the category		
Rural Water Quality Programs or GRCA projects	$90	$190	$220
Expired Permit	$90	$190	$220
Plans amended to an approved permit	$90	$190	$220

Table 2: Inquiry Schedule	2024 After Tax	2025 After Tax	Approx % Increase (to end of phasing period)
NEW Other Inquiry Fee (per request/per property)	$255	N/A	$255
Title Clearance, Real Estate (per request/per property)	$255	$380	$440

Note: Fees rounded to nearest $5
*Subject to additional annual inflationary increase

Phasing Plan to Achieve 100% Cost Recovery for Permits and Inquiries			
Table 1: Permit Fee Schedule	***2024 After Tax***	***2025 After Tax***	**Approx % Change (to end of phasing period)**
NEW *Routine:* *Very low risk of impact on regulated features. Very small project scope. No detailed report/plans or site visit.*			
Fee for Development, Alterations or Interference with Wetlands, Shorelines and Watercourses Applications	**N/A**	*$275	NEW – 41% decrease from minor fee
Minor: *Low risk of impact on regulated features. No technical reports required*			
Fee for Development, Alterations or Interference with Wetlands, Shorelines and Watercourses Applications	$465	*$505	41% *2026: $540 *2027: $580 *2028: $620 *2029: $660
Intermediate: *Moderate risk and/or potential impact on regulated features. Detailed report/plans, and/or site visit required.*			
Fee for Development Applications	$675	*$870	147% *2026: $1070 *2027: $1270 *2028: $1470 *2029: $1665
Fee for Alterations or Interference with Wetlands, Shorelines and Watercourses Applications	$1,185	*$1,280	41% *2026: $1375 *2027: $1470 *2028: $1570 *2029: $1665

*Subject to additional annual inflationary increase, fees rounded to nearest $5

Phasing Plan to Achieve 100% Cost Recovery for Permits and Inquiries			
Table 1: Permit Fee Schedule	***2024 After Tax***	***2025 After Tax***	**Approx % Change (to end of phasing period)**
Major: *Requires one or more reports (Environmental Impact Study, Hydraulic Analysis, Stormwater Management, Geotechnical, etc.)*			
Fee for Development Applications	$10,230	*$10,455	11% *2026: $10,680 *2027: $10,910 *2028: $11,140 *2029: $11,365
Fee for Alterations or Interference with Wetlands, Shorelines and Watercourses Applications *Culvert/Bridge replacement*	$6,710	*$7,640	69% *2026: $8570 *2027: $9500 *2028: $10,430 *2029: $11,365
All other applications	$10,230	*$10,455	11% *2026: $10,680 *2027: $10,910 *2028: $11,140 *2029: $11,365
Large Fill: over 1,000m^3	$10,230 plus $0.50/$m^3$	*$10,230 plus $0.50/m3	11% *2026: $10,680 *2027: $10,910 *2028: $11,140 *2029: $11,365 plus 0.55/m3
Works initiated prior to GRCA approval	2 times the fee for the category	2 times the fee for the category	0%

*Subject to additional annual inflationary increase, fees rounded to nearest $5

Phasing Plan to Achieve 100% Cost Recovery for Permits and Inquiries			
Table 1: Permit Fee Schedule	***2024 After Tax***	***2025 After Tax***	**Approx % Change (to end of phasing period)**
Rural Water Quality Programs or GRCA projects	$90	*$115	144% *2026: $140 *2027: $170 *2028: $190 *2029: $220
All Categories			
Permit Extension	$90	*$115	144% *2026: $140 *2027: $170 *2028: $190 *2029: $220
Plans amended to an approved permit	$90	*$115	144% *2026: $140 *2027: $170 *2028: $190 *2029: $220

Table 2: Inquiry Schedule	**2024 After Tax**	**2025 After Tax**	**Approx % Change (to end of phasing period)**
NEW Other inquiries (per request/per property)	N/A	*$255	0% NEW - Separate from solicitor/real estate inquiries
Title Clearance, Real Estate Fee (per request/per property)	$255	*$290	73% *2026: $330 *2027: $365 *2028: $400 *2029: $440

Appendix C

Potential Permit Fees in Comparison to Other Conservation Authorities					
Conservation Authority (CA)	Minor A /Routine/Letter Permission	Minor B	Intermediate	Major	Inquiry
Central Lake Ontario CA	$170	$520	$1930 + $3530/report or plans + $320/additional site visit or meeting or compliance monitoring	$3,850 +$3530/report or plans + $320/additional site visit or meeting or compliance monitoring	$385 Varying fees if analysis required
Conservation Halton	$309, $618 or $1957	Single Lot - $556 Multi-Lot $2884	Single Lot – $1896 Multi Lot - $7570	Single Lot -$5922 Multi-Lot -$19,570 or $32,960	$387
Grand River CA Current (65% Cost Recovery)	N/A	$465	$675-$1185	$6710-$10,230	$255
*85% Cost Recovery	$230	$505	$1415	$9,660-$10,230	$255 or $380
*100% Cost Recovery	$275	$660	$1665	$11,365	$255 or $440
Hamilton CA	$256.51-$371.77	$824.90 or $1518.72	n/a	$2445.32-$5313.26	$305.10 or $350.30
Niagara Peninsula CA	$678	$1695	n/a	$6780	$395.50
Saugeen Valley CA	$280	$493	$850	$2000 or $4007 (complex)	$116-$920

*Subject to additional annual inflationary increase, fees rounded to nearest $5

Note: Fees approved by Board may not yet be implemented due to fee freeze

Phasing Plan for 100% Cost Recovery for Plan Review			
Plan Review Fee Schedule	***2024 After Tax***	***2025 After Tax***	**Approx % Increase (to end of phasing period**
Subdivision and Condominium			
Base fee per application	$2,505	*$2,945	87% *2026: $3385 *2027: $3820 *2028: $4260 *2029: $4700
Per net hectare	$1,305/hectare	*$1,345/hectare	15% *2026: $1380 *2027: $1420 *2028: $1460 *2029: $1500
Maximum fee (including base and per hectare)	$30,000	*$32,000	33% *2026: $34,000 *2027: $36,000 *2028: $38,000 *2029: $40,000
Applicant driven modification	$1,670	*$1,875	62% *2026: $2080 *2027: $2290 *2028: $2495 *2029: $2,700
Final clearance for registration per stage: technical review required	$6,708	*$6,710	0.03% -rounded
Final clearance Processing Fee: no reports or review required	$255	*$305	96% *2026: $350 *2027: $400 *2028: $450 *2029: $500

*Subject to additional annual inflationary increase, fees rounded to nearest $5

Phasing Plan for 100% Cost Recovery for Plan Review			
Plan Review Fee Schedule	***2024 After Tax***	***2025 After Tax***	**Approx % Increase (to end of phasing period**
Official Plan and/or Zoning Bylaw Amendment			
Major	$2,500	*$3,560	212% *2026: $4620 *2027: $5680 *2028: $6740 *2029: $7800
Minor	$465	*$550	94% *2026: $640 *2027: $725 *2028: $810 *2029: $900
Consent			
Major	$1,185	*$1,650	195% *2026: $2110 *2027: $2575 *2028: $3040 *2029: $3500
Minor	$465	*$570	115% *2026: $680 *2027: $790 *2028: $890 *2029: $1000

*Subject to additional annual inflationary increase, fees rounded to nearest $5

Phasing Plan for 100% Cost Recovery for Plan Review			
Plan Review Fee Schedule	***2024 After Tax***	***2025 After Tax***	**Approx % Increase (to end of phasing period**
Minor Variances			
Major	$675	*$720	33% *2026: $765 *2027: $810 *2028: $855 *2029: $900
Minor	$300	*$340	67% *2026: $380 *2027: $420 *2028: $460 *2029: $500
Site Plan Applications			
Major	$3,515	*$4,490	139% *2026: $5470 *2027: $6445 *2028: $7420 *2029: $8400
Minor	$465	*$690	244% *2026: $920 *2027: $1145 *2028: $1370 *2028: $1600
Complex Applications			
	$10,230	*$10,945	*35%* *2026: $11,660 *2028: $13,085 *2027: $12,370 *2029: $13,800

*Subject to additional annual inflationary increase, fees rounded to nearest $5

Phasing Plan for 100% Cost Recovery for Plan Review			
Plan Review Fee Schedule	***2024 After Tax***	***2025 After Tax***	**Approx % Increase (to end of phasing period**
Below Water Table Aggregate Applications			
No features of interest within 30 metres of licence limit	$10,230	*$10,230	0%
Features of interest within 30 metres of licence limit	$42,850	*$42,850	0%
Above Water Table Aggregate Applications			
No features of interest within 30 metres of licence limit	$465	*$465	0%
Features of interest within 30 metres of licence limit	$10,230	*$10,230	0%
Niagara Escarpment Commission Applications			
Major	N/A	*$1,000	New *2026: $2000 *2027: $3000 *2028: $4000 *2029: $5000
Minor	N/A	*$140	New *2026: $280 *2028: $420 *2028: $560 *2029: $700

*Subject to additional annual inflationary increase, fees rounded to nearest $5

Phasing Plan for 100% Cost Recovery for Plan Review			
Plan Review Fee Schedule	***2024 After Tax***	***2025 After Tax***	**Approx % Increase (to end of phasing period**
Environmental Assessments			
Class A or A+	N/A	$0	0%
Class B	N/A	*$1,000	New *2026: $2000 *2027: $3000 *2028: $4000 *2029: $5000
Class C	N/A	*$1,280	New *2026: $2560 *2027: $3840 *2028: $5120 *2029: $6400
Individual EA	N/A	*$2760 or *$8000	New (fee determined on staff involvement) *2026: $5520 or $16,000 *2027: $8280 or $24,000 *2028: $11,040 or $32,000 *2029: $13,800 or $40,000
Drainage Act applications			
New Drains, Improvements	N/A	*$440	New *2026: $880 *2027: $1320 *2028: $1760 *2029: $2200

*Subject to additional annual inflationary increase, fees rounded to nearest $5

Appendix E

Plan Review – Environmental Assessment and Drainage Act Fees in Comparison to Other Conservation Authorities					
Conservation Authority (CA)	Class EA A or A+	Class EA B	Class EA C	Individual EA	Drainage Act
Central Lake Ontario CA	No Fee	$3,315 if not regulated $5350 plus Infrastructure permit fee	$3315 if not regulated $8025 plus Infrastructure permit fee	$8025 to $19,900 plus permit fee. Subject to negotiation based on anticipated complexity, scale of works and staff effort required.	No Fee
**Conservation Halton	No fee	$7579 Addendum $3130	$12,126 Addendum $3140	$18,189	No Fee
Grand River CA - Current (65% Cost Recovery)	No Fee	No Fee	No Fee	No Fee	No Fee
*85% Cost Recovery	$0	$4250	$5400	$11,730 or $34,000	$1870
*100% Cost Recovery	$0	$5000	$6400	$13,800 or $40,000	$2200
Hamilton CA	No Fee	No Fee	No Fee	No Fee	No Fee
Maitland Valley	No Fee	$1750	$1750	$1750	$235
Niagara Peninsula CA	No Fee	$2825	$2825	No Fee	New construction or Improvement under Section 78 $4237.50 New Section 4 Engineering Report $1582
Saugeen Valley CA	No Fee	“Minor Fee” $440	“Major Fee” $795	No Fee	$920

Note: Fees approved by Board may not yet be implemented due to fee freeze
*Subject to additional annual inflationary increase, fees rounded to nearest $5
** Conservation Halton – Environmental Assessment review fees do not apply to Region of Halton Infrastructure projects as the Region funds a Conservation Halton Regional Infrastructure Team.

Grand River Conservation Authority

Report number: GM-10-24-94

Date: October 25, 2024

To: Members of the Grand River Conservation Authority

Subject: Fee Policy, Fee Schedules, and Proposed 2025 Fee Increases

Recommendation:

THAT amendments to the Grand River Conservation Authority Fee Policy as outlined in this report be approved and implemented effective January 1, 2025;

AND THAT Fee Schedule 1 – Outdoor Environmental Education Fees be approved and implemented effective January 1, 2025;

AND THAT Fee Schedule 2 – Conservation Areas Fees be approved and implemented effective January 1, 2025;

AND THAT Fee Schedule 4 – Tree Nursery Fees be approved and implemented effective January 1, 2025.

Summary:

Conservation Authorities are required to have a written fee policy, as per the *Conservation Authorities Act (s.21.2)*. The current fee policy for the Grand River Conservation Authority (GRCA) was approved on April 26, 2024. The attached Fee Policy has been updated to reflect minor changes due to legislative and cost allocation changes.

The Fee Schedules list the programs and services for which the GRCA charges fees, and the corresponding fee amount for each program and service. A summary of the various Fee Schedules and the proposed increases for 2025, as applicable, is as follows:

- Fee Schedule 1 - Outdoor Environmental Education
  - No fee increases are proposed at this time
- Fee Schedule 2 – Conservation Areas
  - Fees throughout Conservation Areas are proposed to increase by varying amounts, depending on the specific program or service.
- Fee Schedule 3 – Planning and Regulations
  - Varying increases are proposed for permits and inquiries as well as plan review based on the direction provided by the General Membership through GM Report 10-24-93
- Fee Schedule 4 – Tree Nursery
  - Fees include a general three percent increase.

As per *O.Reg.400/22 Information Requirements*, once approved, the updated Fee Policy will be posted on the GRCA's website on the Governance page.

Report:

Fee Policy

Conservation Authorities were required to adopt a written fee policy by January 1, 2023, as per the *Conservation Authorities Act (s.21.2*). A comprehensive fee policy for the Grand River

Conservation Authority (GRCA) was approved at the General Membership Meeting on December 16, 2022 with amendments approved in December 2023 and most recently on April 26, 2024. The attached Fee Policy (Appendix B) has been updated to reflect minor changes.

Fee Schedules and Proposed 2024 Fee Increases
As required by the *CA Act*, Fee Schedules have also been developed that include a listing of the programs and services for which the GRCA charges fees, and the corresponding fee amount for each program and service. These are attached as Appendices C-E. Additional information on each program and/or service, and the proposed fee increases, as applicable, is included below.

Schedule 1 – Outdoor Environmental Education
GRCA outdoor education programs are funded by various sources including agreements with school boards, fees charged directly to school classes or other groups participating, and donations from the GRCF. This revenue has been augmented by the GRCA Transition Reserve to cover costs for 2025. The program includes fees for both school and non-school programs. Fees have been determined based on the cost to deliver the program, the demand for the program, and the user's ability to pay. No fee increases are proposed at this time.

Schedule 2 – Conservation Areas
Conservation Areas provide various active recreational programs and services that are offered to the public at 11 Conservation Areas. In 2025, Conservation Areas continue to experience high demand for the programs and services within each park. With increased demand comes increased operating and maintenance costs, as well as increased wear and tear that impacts the long-term useful life of the assets in each Conservation Area. These factors, combined with the overall economic impact of increased inflation and staying current with market trends, have been factored into the proposed user fees for 2025. Staff focused on keeping proposed 2025 fee increases within a typical average range from 3% to 5%, however, in some cases proposed fee increases are higher than this average.

As mentioned in the 2024 annual fee report, the Watson User Fee study included an analysis of fees and the anticipated cost recovery of the various programs and services for Conservation Areas. The recommendations included an increase to both day-use fees and seasonal camping fees to operate on a break-even basis, which amounted to 15%, in addition to the annual increase to the cost of operations of 3%. Staff have proposed implementing incremental increases to both day-use and seasonal camping fees over 5 years. 2025 is the second year of this phased increase and staff are proposing a larger than 3% increase in seasonal camping and day-use fees.

With respect to membership fees,-the GRCA is in the process of procuring a new vendor to manage the membership program as well as online ticketing. As a result of that process, there may be a need to adjust the membership fees. Should that be the case, an updated membership/fee report will be provided to the board for consideration.

Similarly, the firewood vendor contract will be updated for 2025. A modest increase was included in the 2025 proposed fees, however, if the contract is significantly different than anticipated, the firewood fee might require re-evaluation before the May 1st campground opening.

The information below highlights some examples of programs and services where a higher-than-average fee increase has been proposed:

- Overnight camping fees: with the realignment of the seasonal camping program a new category of overnight site has been created at Byng Island CA. Premium waterfront (water-only service) has been added to the overnight camping options with a nightly rental fee of $58.50 (2025 proposed fee)

- Seasonal camping: To help ensure alignment of all seasonal camping sites, Brant Conservation Area has updated the Premium Waterfront site to reflect that they also provide water service to those sites. The 9 % increase reflects the alignment with similar sites offered at Byng Island CA.
- Lifejackets are free for use in the Conservation Areas. To help deter theft of lifejackets, users are required to provide contact information and/or a deposit (pools excepted)
- Guelph Lake CA has added two pavilions back into the rental program. Sunrise Pavilion and the Sandy Bay Pavilion will be available for rent in 2025
- Rockwood CA will no longer be offering access to the sanitation dumping station. The entrance at Rockwood is narrow and most often users are trying to come into dump their trailer black water and grey water tanks when the conservation area has reached capacity, making accommodation for this service challenging, especially with navigating the narrow entry. Guelph Lake CA has larger roadways, a larger trailer dumping station and is only 15 minutes from Rockwood CA. Guelph Lake CA will continue to offer this service to those who require it. Trailer dumping is included in the camping fee, this service is made available for people who are not camping at GRCA properties.
- 6-month trailer storage is proposed to be increased by 13%. This fee was below market value in comparison to other storage sites. Guelph Lake CA and Laurel Creek CA offer this to the public and seasonal campers. Elora Gorge CA offers storage to only those in the seasonal program at Elora Gorge CA. Byng Island CA also offers storage to only those in their seasonal camping program and most trailers remain on a specific site year-round.
- Hunting fees: The opening day of the waterfowl hunt at Luther Marsh is proposed to increase 10% as the fee has remained the same for over a decade. The Miscellaneous Property Hunting permit is proposed to increase 13% bringing that fee closer to Conestogo and Belwood hunting fees.

A chart showing the proposed Conservation Area fees for 2025, with 2024 fees for comparison and corresponding percentages is attached as Appendix A.

Schedule 3 – Planning and Regulations Services

The Planning and Regulations program is a mandatory service that provides a watershed benefit by regulating development and undertaking review of applications/proposals in and near natural hazards to reduce the risk of loss of life and minimize property damage. The Planning and Regulations budget includes all elements of planning, including the permit process. This includes proactive planning (ie. plan input and policy advice), review of planning and other applications, as well as the GRCA permit process, public inquiries, title clearances, compliance and enforcement. The budget is funded through a combination of self-generated revenue through user fees, and municipal apportionment.

Currently, as per a Minister's Direction, planning and permitting fees are frozen until December 31, 2024. At this time, it is unknown if this direction will be extended. In the event fees can be increased in 2025, two reports (GM-09-24-81 and GM-10-24-93) have been prepared to determine user fee cost recovery targets and outline potential new fee categories to inform the development of final proposed fee schedules.

Based on direction received on Report GM-10-24-93, staff will finalize draft Planning and Regulations Fee Schedules, consult with the GRCA-Home Builders Liaison Committee and present the revised Fee Schedules at the next General Membership meeting.

Schedule 4 – Tree Nursery

The GRCA's nursery and tree planting programs seek to operate on a cost-recovery basis. It is proposed that surplus funds from other Category 3 programs and services will be used to address any deficit in the operating budget for this program.

Fees are charged for plant material and planting services and are determined through analysis of operating costs, market comparators, and inflation. Fees are analyzed and established in the late summer or early fall of any given year to be prepared for the planting season in the following year. Tree Nursery fees for 2025 include a general 3% inflation increase.

As per *O.Reg.400/22 Information Requirements*, once approved, the Fee Policy will be posted on the GRCA's website on the Governance page. Fees will be updated on other webpages as applicable to each program and service, and in other printed materials, as applicable.

Financial Implications:

The fees outlined in the schedules are proposed to be implemented on January 1, 2025. The budget for 2025 will incorporate these fees as applicable. If any fee adjustments arise during 2025, they would be brought to the General Membership for approval and their impact would be reflected in monthly forecast adjustments that are reported to the General Membership.

Other Department Considerations:

Various departments participated in the preparation of the policy and the proposed fee increases.

Prepared by:

Karen Armstrong
Deputy CAO, Secretary-Treasurer

Approved by:

Samantha Lawson
Chief Administrative Officer

Proposed 2025 Conservation Area User Fees

	2024 Fee After Tax (Rounded)	2025 Fee After Tax (Rounded)	Percentage Increase
DAY USE			
All Conservation Areas - Adult	$8.50	$9.00	6%
All Conservation Areas - Senior/Persons with a Disability	$6.75	$7.25	7%
All Conservation Areas - Child 4-12	$3.75	$4.00	7%
Pool (Per person)	$2.75	$2.75	0%
Auto Gate Admission	$17.00	$18.00	6%
ePass (Day Use: Belwood, Conestogo Lower Park, Guelph Lake, Rockwood, Pinehurst and Luther Marsh	$17.00	$18.00	6%
ePass (Luther Marsh - Daily Hunt)	$17.00	$18.00	6%
Activities			
Mini Golf - Adult (Rockwood)	$6.00	$6.00	0%
Mini Golf - Child (Rockwood)	$4.00	$4.00	0%
Movie night (Shade's Mills)	$17.00	$18.00	6%
Elora Quarry			
Adult	$11.00	$11.75	7%
Senior/Persons with a disability	$8.00	$8.50	6%
Child	$5.75	$6.25	9%
Parking	$15.00	$16.75	12%
MEMBERSHIP			
Family Membership	$160.00	$160.00	0%
Senior / Persons with a disability	$130.00	$130.00	0%
Membership replacement	$35.00	$35.00	0%
Bulk membership discount (5+)	$120.00	$120.00	0%
NIGHTLY			
Rockwood			
Unserviced	$49.50	$51.00	3%
Serviced	$59.00	$60.50	3%
Serviced (sewer)	$66.00	$68.00	3%

Proposed 2025 Conservation Area User Fees

	2024 Fee After Tax (Rounded)	2025 Fee After Tax (Rounded)	Percentage Increase
Pinehurst Lake			
Unserviced	$49.50	$51.00	3%
Standard serviced	$59.00	$60.50	3%
Premium serviced	$62.00	$64.00	3%
Guelph Lake			
Unserviced	$49.50	$51.00	3%
Serviced	$59.00	$60.50	3%
Festival Sites - unserviced	$198.00	$200.00	1%
All Other CAs			
Unserviced	$49.50	$51.00	3%
Waterfront - unserviced - Brant, Byng, Laurel	$54.50	$56.50	4%
Waterfront (water only) Byng	New for 2025	$58.50	0%
Serviced	$59.00	$60.50	3%
Sewer	$66.00	$68.00	3%
Elora Gorge			
Unserviced	$49.50	$51.00	3%
Serviced (Electricity)	$53.00	$54.50	3%
Serviced (Electricity and Water)	$59.00	$60.50	3%
Serviced (Electricity, Water and Sewer)	$66.00	$68.00	3%
GROUP CAMPING			
Elora Gorge, Laurel Creek, Pinehurst Lake and Rockwood			
Youth group camping only	$80.00 + additional vehicle + per person fee	$85.00 +child rate per person per night	6%
Brant, Byng Island, Conestogo Lake and Guelph Lake			
Group - unserviced	$80.00 + additional vehicle + per person fee	$85 + additional vehicle + per person fee	6%
Guelph Lake Island with Pavilion (Serviced)		$400.00 + additional vehicle + per person fee	
Byng Island without Pavillion (Serviced)	$125.00 + additional vehicle + per person fee	$130.00 + additional vehicle + per person fee	4%
Byng Island including Pavillion (Serviced)	$175.00 + additional vehicle + per person fee	$180.00 + additional vehicle + per person fee	3%
Youth Group Rates (excluding Guelph Island)	$80 plus additional vehicle and per person fee	$85.00 +child rate per person per night	6%

Proposed 2025 Conservation Area User Fees

	2024 Fee After Tax (Rounded)	2025 Fee After Tax (Rounded)	Percentage Increase
SEASONAL			
Additional vehicle	$115.00	$119.00	3%
First time seasonal camper deposit	$1,000.00	$1,000.00	0%
Returning seasonal camper deposit	$250.00	$250.00	0%
Brant			
Standard Unserviced	$2,259.00	$2,417.00	7%
Premium Serviced Waterfront (Water only)	$2,777.00	$3,018.00	9%
Standard Serviced (Water only)	$2,420.00	$2,589.00	7%
Standard Serviced (Electricity and Water)	$3,063.00	$3,278.00	7%
Premium serviced (Electricity, Water and Sewer)	$3,633.00	$3,887.00	7%
Byng Island			
Unserviced	$2,259.00	$2,417.00	7%
Premium unserviced (waterfront)	$2,777.00	$2,972.00	7%
Standard Serviced (Water only)	$2,420.00	$2,589.00	7%
Premium Serviced Waterfront (Water only)	$2,820.00	$3,018.00	7%
Standard Serviced (Electricity and Water)	$3,224.00	$3,450.00	7%
Premium Serviced Waterfront (Electricity and Water)	$3,670.00	$3,927.00	7%
Conestogo Lake			
Unserviced	$2,259.00	$2,417.00	7%
Standard Serviced (Electricity and Water)	$2,779.00	$3,058.00	10%
Elora			
Standard Serviced (Electricity and Water)	$3,063.00	$3,278.00	7%
Premium serviced (Electricity, Water and Sewer)	$3,633.00	$3,887.00	7%
Guelph Lake			
Premium unserviced (waterfront)	$2,777.00	$2,972.00	7%
Standard Serviced (Electricity and Water)	$3,063.00	$3,278.00	7%
Laurel Creek			
Standard Serviced (Electricity and Water)	$3,063.00	$3,278.00	7%
Pinehurst Lake			
Unserviced	$2,259.00	$2,417.00	7%
Standard Serviced (Electricity and Water)	$3,063.00	$3,278.00	7%

Proposed 2025 Conservation Area User Fees

	2024 Fee After Tax (Rounded)	2025 Fee After Tax (Rounded)	Percentage Increase
ADDITIONAL CAMPING FEES			
Cancellation fee	$15.00	$15.00	0%
Reservation fee	$13.00	$13.00	0%
Extra vehicle (AVP)	$17.00	$18.00	6%
Modification fee	$8.00	$8.00	0%
VENDING ITEMS			
Ice	$4.00	$4.00	0%
Worms	$5.25	$5.25	0%
Fire starter	$1.50	$1.50	0%
Firewood - regular	$10.00	$10.50	5%
Waterproof bags	$25.00	$25.00	0%
BOAT & TUBING RENTALS			
Life Jacket Rentals	**No Fee Loaner program at CAs**		
Belwood Lake			
Boat Launch	$13.50	$14.00	4%
Season Pass	$110.00	$115.00	5%
Snowmobile/ATV/ for access to Ice Fishing launch	$3.00	$3.25	8%
Byng Island			
Canoe/kayak - 1 hour	$20.50	$21.50	5%
Canoe/kayak - 4 hour	$51.50	$53.00	3%
Canoe/kayak - 8 hour	$82.50	$85.00	3%
Conestogo Lake			
Daily boat launch	$13.50	$14.00	4%
Daily launch season pass	$110.00	$115.00	5%
Elora Gorge			
Tubing registration	$20.00	$21.00	5%
Complete tubing package	$54.00	$54.00	0%
Laurel Creek			
Canoe (4 hour rental)	$51.50	$53.00	3%
Canoe (8 hour rental)	$82.50	$85.00	3%
Pinehurst Lake			
Canoe/double kayak/peddleboat (1 hour rental)	$20.50	$21.50	5%
4 hour Rental	$51.50	$53.00	3%
Rockwood			
Canoe / Kayak (1 hour rental)	$25.00	$26.00	4%

Proposed 2025 Conservation Area User Fees

	2024 Fee After Tax (Rounded)	2025 Fee After Tax (Rounded)	Percentage Increase
WINTER EQUIPMENT RENTALS			
Shade's Mills/Pinehurst Lake			
Ski boots (adult)	$8.75	$9.00	3%
Ski boots (child)	$6.75	$7.00	4%
Ski poles (adult)	$8.75	$9.00	3%
Ski poles (child)	$6.75	$7.00	4%
Skis (adult)	$12.75	$13.25	4%
Skis (child)	$6.75	$7.00	4%
Full ski set (skis, poles, boots) (adult)	$24.75	$25.50	3%
Full ski set (skis, poles, boots) (child)	$18.50	$19.00	3%
Snowshoes (adult & child) Laurel Creek	$16.50	$17.00	3%
FACILITY RENTALS			
Brant			
Grand Pavilion	$128.75	$132.50	3%
Parkview Pavilion	$103.00	$106.50	3%
Picnic areas	$41.25	$42.50	3%
Byng Island			
Pavilion	$180.00	$185.50	3%
Conestogo Lake			
Pavilion	$72.00	$75.00	4%
Elora Gorge			
Kay Marston Pavilion A	$250.00	$260.00	4%
Kay Marston Pavilion B	$250.00	$260.00	4%
Kay Marston Pavilion - entire	$500.00	$515.00	3%
Guelph Lake			
Sandy Bay Pavilion	Not rented in 2023, 2024	$106.50	
Sunrise Pavilion		$106.50	
Laurel Creek			
Critter shelter	$180.00	$185.00	3%
Lakeview Shelter	$123.50	$130.00	5%
Baseball shelter	$103.00	$106.50	3%
Pinehurst Lake			
Sutor Shelter	$123.50	$127.50	3%
White Oaks Shelter	$82.50	$85.00	3%
Sunset Shelter	$51.50	$53.00	3%

Proposed 2025 Conservation Area User Fees

	2024 Fee After Tax (Rounded)	2025 Fee After Tax (Rounded)	Percentage Increase
Shade's Mills			
Beach/Diamond/Trailer Shelter	$123.50	$127.50	3%
Chalet Shelter	$257.50	$265.50	3%
HUNTING			
Luther Marsh			
Day Pass	$17.00	$18.00	6%
Opening day of Migratory Birds	$25.00	$27.50	10%
Seasonal hunting pass	$360.00	$370.00	3%
Migratory Birds/Small Game - No Turkey	$175.00	$180.00	3%
Deer Archery Only	$165.00	$170.00	3%
Deer/Fall Turkey	$206.00	$220.00	7%
Belwood Lake			
Seasonal hunting pass: Migratory Birds/Deer/Small Game/Fall Turkey	$309.00	$320.00	4%
Deer/Fall Turkey	$206.00	$220.00	7%
Deer Archery Only	$165.00	$170.00	3%
18 Misc. properties			
Season pass	$124.00	$140.00	13%
Conestogo			
Seasonal hunt	$360.00	$370.00	3%
Archery only	$165.00	$170.00	3%
Deer/Fall Turkey	$258.00	$265.00	3%
Migratory Birds/Small Game - No Turkey	$175.00	$180.00	3%
MISC. & OTHER FEES			
Dumping station fee (excluding Rockwood)	$25.00	$25.00	0%
Trailer storage - per month (Laurel + Guelph)	$77.25	$80.00	4%
Trailer storage - 6 months (Elora + Guelph + Laurel + Byng)	$309.00	$350.00	13%
Deposits for amenity rentals range from $10-$100 depending on the item rented			
Access agreements			
Access agreements, events and filming contracts also contribute to annual park revenue. Fees vary upon event are not included in the above fee schedule, however prices reflect market value.			
Admin fee	$75.00	$75.00	0%
site fee	Superintendent discretion based on similar events at other GRCA Conservation Areas		
municipal partners training (provincial, federal, mnr, fire fighters)	$0.00	$0.00	0%
per person	Superintendent discretion based on similar agreements at other GRCA Conservation Areas		

Grand River Conservation Authority Fee Policy

Approval Date: ~~April 26~~October 25, 2024
Effective Date: October 25~~April 26~~, 2024

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Commented [KA1]: What about deposits and cancellation fees?

Legislative Framework and Background

This Fee Policy has been prepared to satisfy the requirement for conservation authorities to have a policy for the fees charged for Authority programs and services, as described in Section 21.2 of the Conservation Authorities Act.

Since 1996, the Conservation Authorities Act empowered conservation authorities to charge fees for services approved by the Minister of Natural Resources. Section 21 (m.1) of the Conservation Authorities Act allowed for this collection of fees for the following services, where the service was not supported through provincial grant funding.

On January 1, 2023, the Conservation Authorities Act was amended by repealing 21 (1) (m.1) and enacting section 21.2 (1)-(12) “Fees for Programs and Services”. Subsection (1) enables the Minister to determine the classes of programs and services in respect of which an authority may charge a fee and (2) requires the Minister to publish a list in a policy document. This list has been published through the ‘Policy: Minister’s list of classes of programs and services in respect of which conservation authorities (CAs) may charge a fee’ on April 11, 2022, and replaces the 1997 ‘Policies and Procedures for the Charging of Conservation Authority Fees’ which was approved by the Minister of Natural Resources and Forestry. Conservation authorities may only charge a fee for a program or service that it provides if it is included in this list. The Minister’s list identifies that CAs may charge a fee for mandatory, municipal, and other programs and services where the user-pay principle is appropriate.

Guiding Principles

When updating existing fee schedules or establishing new fees, the following guiding principles will be considered:

- Fees will be established as per legislative requirements, the ability to operate and sustain programs and services, and reflect a user-pay principle;
- Fee increases will consider inflationary factors;
- Direct, indirect, and capital costs associated with the program or service may be included in the calculation of the overall cost;
- Fee schedules will be reviewed on an annual basis to inform the budget for the following year.

Programs and Services - Implementation

1. Outdoor Environmental Education

GRCA outdoor environmental education programs are funded by various sources including agreements with school boards, fees charged directly to school classes or other groups participating, and donations to the GRCF. GRCA reserves or surplus funds from other GRCA programs and services may also be a source of funding as directed by the GRCA's Board of Directors. The GRCA currently offers programs on-site at nature centres or conservation areas, off-site at schools or other locations determined by school boards or groups with which the GRCA has an agreement, or virtually.

This program includes fees for:

- School Programs delivered through agreements with school boards, individual schools, or other private school operators.
- Non-School Programs – community, group, or other outdoor education programs.

Fees **-** See Schedule 1

Factors in Determining Fees

- Cost to deliver the program
- Demand for the program (number of classes being delivered)
- User's ability to pay

Refunds/Fee Reconsideration

- Refunds are considered on a case-by-case basis should the GRCA be unable to deliver the service.

Discounts/Subsidies/Donations/Exemptions

- Agreements with school boards include the ability to add additional classes at a negotiated rate. Fees may be subsidized with donations from the GRCF based on the availability of funding and then assessed on a case-by-case basis.

Review Process

- Fees are reviewed and negotiated annually with school boards. Contracts cover the school year (September – August) and are negotiated in time for the subsequent school year.

Public Notification and Consultation Process

- Not applicable given that fees are established by negotiated individual contracts.

2. Conservation Areas

Conservation Areas provide various active recreational programs and services that are offered to the general public. These programs and services are pay-for-use and include:

- General Admission Fees – day use, membership, boat launch
- Activity/Equipment Fees – tubing, boating, cross-country skiing
- Camping Fees - seasonal camping, overnight camping, and additional vehicle fees
- Hunting Fees
- Facility Rental Fees
- Event/Access Fees

Fees – See Schedule 2

Factors in Determining Fees

Criteria for setting fees are:

- Fee comparisons to similar operations, including trends analysis;
- Anticipated operational expenses that will be incurred that will impact the budget;
- Trends in demand for specific programs and services
- Projected capital expenses

Refunds/ Fee Reconsideration/ Cancellation and Deposits

- The GRCA has specific refund/deposit/cancellation policies related to the programs and services described in Fee Schedule 2. ~~(Conservation Area). These are posted on GRCA's website and are outlined in the fee schedule.~~
- Refunds are considered on a case-by-case basis. All refunds may be subject to cancellation/service fees. ~~–~~Items rented on-site or booked within a short rental period (e.g. next 7 days) will not be refunded (e.g., kayak rental, tubing ~~experiences~~, mini~~-~~golf, cross~~-~~country ski equipment rentals, movie nights etc.). All refunds are at the discretion of the Manager of Conservation Area Operations.
- Deposits for amenity rentals (e.g., canoes, kayaks, tubing experience) with a dollar value above $25 will be charged at the discretion of the Manager of Conservation Area Operations.

~~**Refunds/Fee Reconsideration**~~

- ~~Refunds are considered on a case-by-case basis.~~

Discounts/Subsidies/Donations/Exemptions

- Decisions related to offering discounts or donations for programs and services within Conservation Areas are aligned with the strategic priorities of the GRCA. This includes approving requests for discounts or donations from Community Partners and Community Groups, the GRCF, or community events that align with the strategic priorities
- Requests for donations or discounts must be accompanied by a Letter of Intent, outlining the scope of the event or initiative. Thirty days' notice is required to process requests. Requests that are approved will be awarded with a confirmation letter, outlining the terms of use for the discount or donation, and approval from the Manager of Conservation Area Operations
- Per the Accessibility Standards for Customer Service Regulation O.Reg.429/07 and the Ontario Human Rights Code, the Conservation Areas permit people with disabilities who use a support person to bring that person with them wh~~ile~~en accessing goods or services in premises open to the public or third parties, free of charge.

Review Process

- Conservation Area fees are reviewed annually by Conservation Area staff each fall, in preparation for the following year.

Public Notification and Consultation Process

- Following Board approval of fees, the new fees are updated on the GRCA's website. Seasonal campers receive an electronic copy of the fee schedule and policies annually.

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Other - Indigenous patrons at GRCA Conservation Areas

- Indigenous patrons who enter the Conservation Areas for the purpose of ceremony, the collection of vegetation for medicinal use, or to harvest animals within their treaty rights are not required to pay a fee to enter the conservation area or miscellaneous hunting area. Upon entry, Indigenous patrons entering for these reasons are asked to advise staff about the purpose of their visit. For entry related to hunting, access is limited to GRCA-authorized miscellaneous hunting properties, and a permit is required which can be obtained by contacting the GRCA Administration Centre.

3. Planning and Regulations

This program includes fees for:

- Permit Fees
- Inquiry Fees
-
- Plan Review Fees

Fees – See Schedule 3

Factors in Determining Fees

The GRCA administers ~~its~~ fees to achieve a partial cost recovery for the ~~program for~~ Planning and Regulations ~~to achieve a partial cost recovery for permit and planning~~program.

When reviewing the fee schedule, the following factors and data are considered:

- Analysis of trends in workload changes as a result of shifts in the development market and types of applications;
- Consultation with developers/municipalities about work effort, new planning/legislative requirements and streamlining;
- Complexity of applications and technical review required by staff;
- Review of fees for similar applications within watershed municipalities and adjacent Conservation Authorities;
- General overview of status of cost recovery targets for certain services as established by the Board;
- Statistics related to number of applications and annual changes, where required;
- Level of service/review expectation for processing timing;
- Areas of improvement of level of service/staffing demands;
- Efficiency measures as required;
- Reserve fund requirements;
- Identification of specific/specialized municipal requirements;
- Trends in legal costs associated with compliance and appeals to the Ontario Lands Tribunal and other legal services.

Refunds/Fee Reconsideration

Application for an administrative review of a fee may be requested by a third party, either an individual, an organization, or an appointed representative. Requests for an administrative review must be in writing to the Chief Administrative Officer (or delegate) and specify the reason(s) for the request for review.

Upon reconsideration of a fee that was charged by the GRCA, the GRCA may:

- Order the person to pay the fee in the amount originally charged;
- Vary the amount of the fee originally charged, as the GRCA considers appropriate; or
- Order that no fee be charged for the program or service.

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If the third party is ordered to pay a fee and is not satisfied with this outcome, the third party may:

- Option 1 - Within 30 days of receipt of the reconsideration decision, an appeal may be requested to be directed to the GRCA Board of Directors. Once heard, the appeal will be dismissed or upheld through a resolution passed by the Board of Directors. The appellant will be notified of the Board's decision. If the party is not satisfied with the outcome, the party has the right to proceed with Option 2.
- Option 2- Pay the fee, indicating to the GRCA in writing that the fee is being paid under protest and within 30 days after payment of the fee, appeal the amount charged by the GRCA upon reconsideration to the Ontario Land Tribunal.

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If the GRCA fails to make a decision on the fee reconsideration request within 30 days of receipt, the third party may:

- Option 1 – A hearing may be requested to be directed to the GRCA Board of Directors for a decision. The Board of Directors may:
  - Order the person to pay the fee in the amount originally charged;
  - Vary the amount of the fee originally charged, as the GRCA considers appropriate; or
  - Order that no fee be charged for the program or service.

  The appellant will be notified accordingly of the Board's decision. If the party is not satisfied with the outcome, the party has the right to proceed with Option 2.
- Option 2 - Appeal the amount of the fee directly to the Ontario Lands Tribunal.

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Discounts/Subsidies/Donations/Exemptions
Exemptions for permit applications, Planning Act applications, inquiries, and site assessment fees will be considered for:

Non-profit conservation groups contributing to the protection and restoration of the natural environment, examples include but are not limited to: Ducks Unlimited, Nature Conservancy of Canada, Ontario Federation of Anglers and Hunters.

Review Process

- Permit and Planning fees are reviewed annually each fall, in preparation for the following year.

Public Notification and Consultation Process

- Proposed fees are reviewed with the GRCA-Homebuilder Liaison Committee in advance of approval by the Board. Following Board approval of fees, the new fees are updated on the GRCA's website.

4. Tree Nursery

The GRCA's nursery and tree planting programs are funded by fees charged for planting material (trees) and planting services, surplus funds from other GRCA programs and services, and periodically, donations are also received through the Grand River Conservation Foundation (GRCF).

Fees **-** See Schedule 4

Factors in Determining Fees

When reviewing the fee schedule, the following factors and data are considered:

- Analysis of operating costs (including seed processing, fertilization, soil care, irrigation, weed control, the length of time it takes to grow various tree species to saleable size, lifting trees,

packaging trees, transporting trees from our Nursery in Burford, sourcing trees from external commercial nurseries, transporting trees, storing trees in our cooler until they are distributed, and the distribution of all of these trees to tree planting contractors)
- Completing market comparators, including charges from other Conservations Authorities and retail nurseries
- Inflation
- Respond to infrequent/isolated requests related to tree sales (deliveries, plan reviews for external agencies, storage fees, and tree maintenance).
- From year to year, not all tree species are available. Tree planting costs are determined through an annual contractor Request For Proposal (RFP) process that occurs over the winter in preparation for the spring tree planting season.

Refunds/Fee Reconsideration:
- A non-refundable deposit of $50.00 must accompany each order, which goes towards the final invoice.
- All requests are received through the Supervisor of Forestry Operations who will review the request and follow up as required.
- If the nursery cannot fulfill the order, or a customer requests a cancellation for their order one month before order fulfillment, a refund will be issued.

Discounts/Subsidies/Donations/Exemptions (including in-kind services)
- From time to time, tree stock has been overestimated which can result in excess stock. In this event, trees will be offered to watershed municipalities for their planting requirements.
- On the second Friday in May every year, the GRCA holds an end-of-season tree sale. All watershed residents are welcome to purchase trees at this tree sale on a first-come first-served basis. Trees sold at the sale are left over from the planting season, due to cancelled orders or stock overruns and are typically sold at a discount.
- The GRCA may donate trees as authorized by the Chief Administrative Officer.

Review Process
- Fees are reviewed annually in the late summer or early fall by Forestry Operations staff.

Public Notification and Consultation Process
- Following approval of fees, the new fees are updated on the GRCA's website and the online purchasing system.

5. Conservation Lands

This program includes fees for the following:
- Lease Agreements including commercial, agricultural, and residential leases
- Licence Agreements: to permit a third party to undertake an activity or program on GRCA property
- Encroachment Agreements: to permit an existing encroachment on GRCA property
- Easement agreements

Fees – not applicable; as negotiated

Factors in Determining Fees
- Applicable legislation and existing legal agreements.
- Negotiation with the third party(ies).
- Market evaluation
- Legal considerations.

Refunds/Fee Reconsideration

- Refunds are considered on a case-by-case basis and will be issued as outlined in the negotiated agreement with the party(ies).

Discounts/Subsidies/Donations/Exemptions

- Not applicable

Review Process

- Fees associated with a lease, licence, encroachment, and easement agreements are reviewed at the end of the term and re-negotiated by Property staff.

Public Notification and Consultation Process

- Not applicable given that fees are established by negotiated individual contracts.

Policy Review Process and Frequency

This Fee Policy and Schedules will be reviewed at least once per year by the GRCA Management Team. The Management Team will seek information regarding fees, from various sources, as identified in the implementation section above; and prepare a proposed revised Fee Schedule with a report to the Board of Directors regarding recommended changes, if applicable. The Fee Policy and Schedules are subject to the approval of the Board of Directors.

Once approved, the revised Fee Schedules to this policy will be published on the GRCA's website, and in other materials used by the public.

Public Notification

The public will be notified of any proposed changes to the Fee Policy or Fee Schedules, by way of posting a notice on the GRCA website's 'Governance' page that the Fee Schedule will be reviewed on an identified date, at an open meeting of the Authority's Board of Directors. Fees will be reviewed at least once per year and will be brought to the Board of Directors for review and approval if changes are proposed.

Date of Effect and Transition

This updated Fee Policy becomes effective as of ~~April 26~~October 25, 2024.

The update to this Fee Policy supersedes and replaces all previous fee policies and/or schedules.

References

This policy was developed using the following references:

- Conservation Authorities Act
- Policies and Procedures for the Charging of Conservation Authority Fees, established by the Ministry of Natural Resources (June 1997, updated March 1999)
- Conservation Ontario - Guideline for CA Fee Administration Policies for Plan Review and Permitting - June 24, 2019
- Conservation Ontario – Guidance on CA Fee Policies and Fee Schedules – September 13, 2022
- Policy: Minister's list of classes of programs and services in respect of which conservation authorities may charge a fee – April 11, 2022
- Fee Schedules

TITLE	GRCA Fee Policy: Fee Schedule 1 – Outdoor Environmental Education Programs and Services
DEPARTMENT	Strategic Communications and Environmental Education
APPROVED DATE	October 25, 2024
EFFECTIVE DATE	January 1, 2025

Table 1 –Outdoor Environmental Education User Fees

Program/Service	2025 Fee
Full Day School Program	$600
Half Day School Program	$300
Non-school program	$100/hour (Service delivery, prep, clean up and travel time) plus expenses

*HST is in addition to the above-noted rates

TITLE	GRCA Fee Policy: Fee Schedule 2 – Conservation Area Programs and Services
DEPARTMENT	Conservation Areas
APPROVED DATE	October 25, 2024
EFFECTIVE DATE	January 1, 2025

Table 1: Proposed 2025 Day Use Admission Fees

Day Use Type	2025 Before Tax	2025 After Tax (rounded, as needed)
All Conservation Areas – Adult	$7.95	$9.00
All Conservation Areas – Senior/Persons with disability	$6.47	$7.25
All Conservation Areas – Child (4-12)	$3.48	$4.00
Pool (per person)	$2.49	$2.75
Auto Gate Admission	$15.91	$18.00
ePass (Day use: Belwood, Conestogo lower park, Guelph, Rockwood, Pinehurst, Luther Marsh)	$15.91	$18.00
ePass (Luther Marsh daily hunt)	$15.91	$18.00
Elora Quarry		
Elora Quarry – Adult	$10.44	$11.75
Elora Quarry – Senior/Persons with disability	$7.46	$8.50
Elora Quarry – Child	$5.47	$6.25
Elora Quarry – Parking	$14.91	$16.75

Table 2: Proposed 2025 Membership Fees

Membership Type	2025 Before Tax	2025 After Tax (rounded, as needed)
Family membership	$141.59	$160.00
Senior/disability	$115.04	$130.00
Membership replacement	$30.97	$35.00
Bulk membership discount (5+)	$106.19	$120.00

Table 3: Proposed 2025 Hunting Fees

Hunting	2025 Before Tax	2025 After Tax (rounded, as needed)
Belwood Lake		
Seasonal hunting pass: Migratory Birds/Deer/Small Game/Fall Turkey	$281.65	$320.00
Deer/Fall Turkey	$187.77	$220.00
Deer Archery Only	$150.22	$170.00
Conestogo Lake		
Seasonal hunt	$328.59	$370.00
Archery only	$150.22	$170.00
Deer/Fall Turkey	$234.72	$265.00
Migratory Birds/Small Game - No Turkey	$159.60	$180.00

Hunting	2025 Before Tax	2025 After Tax (rounded, as needed)
Luther Marsh		
Day Pass	$15.76	$18.00
Opening day of Migratory Birds	$23.47	$27.50
Seasonal hunting pass	$328.60	$370.00
Migratory Birds/Small Game - No Turkey	$159.61	$180.00
Deer Archery Only	$150.22	$170.00
Deer/Fall Turkey	$187.77	$220.00
18 Miscellaneous Properties		
Season pass	$112.66	$140.00

Table 4: Proposed 2025 Nightly Camping Rates

Conservation Area	*2025 Before Tax*	*2025 After Tax (rounded, as needed)*
Brant Park		
Unserviced	$45.06	$51.00
Premium Unserviced (waterfront)	$49.76	$56.50
Serviced (electricity/water)	$53.52	$60.50
Serviced (electricity/water/sewer)	$60.09	$68.00
Byng Island	***2025 Before Tax***	***2025 After Tax***
Unserviced	$45.06	$51.00
Premium Unserviced (waterfront)	$49.76	$56.50
Waterfront Serviced (water)	$51.77	$58.50
Serviced (electricity/water)	$53.52	$60.50
Conestogo Lake	***2025 Before Tax***	***2025 After Tax***
Unserviced	$45.06	$51.00
Serviced	$53.52	$60.50
Elora Gorge	***2025 Before Tax***	***2025 After Tax***
Unserviced	$45.06	$51.00
Serviced (electricity)	$48.30	$54.50
Serviced (electricity/water)	$53.52	$60.50
Serviced (electricity/water/sewer)	$60.09	$68.00
Guelph Lake	***2025 Before Tax***	***2025 After Tax***
Unserviced	$45.06	$51.00
Serviced (electricity/water)	$53.52	$60.50
Field Festival Sites - Unserviced	$175.01	$200.00
Laurel Creek	***2025 Before Tax***	***2025 After Tax***
Unserviced	$45.06	$51.00
Premium Unserviced (waterfront)	$49.76	$56.50
Serviced (electricity/water)	$53.52	$60.50

Conservation Area	*2025 Before Tax*	*2025 After Tax (rounded, as needed)*
Pinehurst Lake	***2025 Before Tax***	***2025 After Tax***
Unserviced	$45.06	$51.00
Standard Serviced (electricity/water)	$53.52	$60.50
Rockwood	***2025 Before Tax***	***2025 After Tax***
Unserviced	$45.06	$51.00
Serviced (electricity/water)	$53.52	$60.50
Serviced (electricity/water/sewer)	$60.09	$68.00

Table 5: Proposed 2025 Seasonal Camping Rates

Conservation Area	*2025 Before Tax*	*2025 After Tax (rounded, as needed)*
Additional vehicle	$104.82	$119.00
Seasonal deposit – first time seasonal camper	$884.96	$1,000.00
Seasonal deposit – returning seasonal camper	$221.24	$250.00
Brant	***2025 Before Tax***	***2025 After Tax***
Standard Unserviced	$2,138.76	$2,417.00
Premium unserviced (waterfront)	$2,629.72	$3,018.00
Serviced (water only)	$2,291.13	$2,589.00
Standard Serviced (electricity/water)	$2,900.59	$3,278.00
Premium Serviced (electricity/water/sewer)	$3,439.70	$3,887.00
Byng Island	***2025 Before Tax***	***2025 After Tax***
Unserviced	$2,138.76	$2,417.00
Premium unserviced (waterfront)	2,629.44	$2,972.00
Serviced (water only)	$2,291.13	$2,589.00
Premium Serviced Waterfront (water only)	$2,671.00	$3,018.00
Standard Serviced (electricity/water)	$3,052.96	$3,450.00
Premium Serviced Waterfront (electricity/water)	$3,474.65	$3,927.00
Conestogo Lake	***2025 Before Tax***	***2025 After Tax***
Unserviced	$2,138.76	$2,417.00
Standard Serviced (electricity/water)	$2,705.54	$3,058.00
Elora Gorge	***2025 Before Tax***	***2025 After Tax***
Standard Serviced (electricity/water)	$2,900.59	$3,278.00
Premium serviced (electricity/water/sewer)	$3,439.70	$3,887.00
Guelph Lake	***2025 Before Tax***	***2025 After Tax***
Premium unserviced (waterfront)	$2,629.72	$2,972.00
Standard Serviced (electricity/water)	$2,900.59	$3,278.00
Laurel Creek	***2025 Before Tax***	***2025 After Tax***
Standard Serviced (electricity/water)	$2,900.59	$3,278.00
Pinehurst Lake	***2025 Before Tax***	***2025 After Tax***
Unserviced	$2,138.76	$2,417.00
Standard Serviced (electricity/water)	$2,900.59	$3,278.00

***Monthly Camping removed at all Conservation Areas**

Table 6: Proposed 2025 Group Camping Rates

Group Camping	*2025 After tax (rounded, as needed)*
Elora Gorge / Laurel Creek / Pinehurst Lake / Rockwood	
Youth group camping only	$85.00 + child rate per person per night
Brant / Byng Island / Conestogo Lake / Guelph Lake	
Group Unserviced	$85 + additional vehicle + per person fee per night
Guelph Lake Island with Pavilion (serviced)	$400.00 + additional vehicle + per person fee per night
Byng Island without Pavilion (Serviced)	$130.00 + additional vehicle + per person fee per night
Byng Island including Pavilion (Serviced)	$180.00 + additional vehicle + per person fee per night
Youth Group Rates (excluding Guelph Lake Island)	$85.00 +child rate per person per night

Table 7: Proposed 2025 Additional Camping Fees

Item	*2025 Before Tax*	*2025 After Tax (rounded, as needed)*
Cancellation fee	$13.27	$15.00
Reservation fee	$11.50	$13.00
Extra vehicle (AVP)	$16.96	$18.00
Modification fee	$7.08	$8.00

Table 8: Proposed 2025 Activity Fees

Activity	*2025 Before Tax*	*2025 After Tax (rounded, as needed)*
Mini Golf - Adult (Rockwood)	$5.31	$6.00
Mini Golf - Child (Rockwood)	$3.54	$4.00
Movie night (Shade's Mills)	$15.91	$18.00
Winter Equipment Rentals (Pinehurst / Shade's Mills)	*2025 Before Tax*	*2025 After Tax*
Ski boots (adult)	$7.98	$9.00
Ski boots (child)	$6.10	$7.00
Ski poles (adult)	$7.98	$9.00
Ski poles (child)	$6.10	$7.00
Skis (adult)	$11.73	$13.25
Skis (child)	$6.10	$7.00
Full ski set (skis, poles, boots) (adult)	$22.54	$25.50
Full ski set (skis, poles, boots) (child)	$16.90	$19.00
Snowshoes (adult & child) **Laurel Creek Only**	$15.02	$17.00

Table 9: Proposed 2025 Boating & Tubing Rentals

Conservation Area	*2025 Before Tax*	*2025 After Tax (rounded, as needed)*
Belwood Lake	***2025 Before Tax***	***2025 After Tax***
Boat launch	$12.21	$14.00
Launch season Pass	$98.58	$115.00
Snowmobile/ATV ice fishing launch (New)	$2.73	$3.25
Byng Island	**2025 Before Tax**	**2025 After Tax**
Canoe/kayak (1 hour rental)	$18.78	$21.50
Canoe/kayak (4 hour rental)	$46.95	$53.00
Canoe/kayak (8 hour rental)	$75.11	$85.00
Conestogo Lake	**2025 Before Tax**	**2025 After Tax**
Daily boat launch	$12.21	$14.00
Launch season pass	$98.58	$115.00
Elora Gorge	**2025 Before Tax**	**2025 After Tax**
Tubing registration	$18.58	$21.00
Complete tubing package	$47.85	$54.00
Laurel Creek	**2025 Before Tax**	**2025 After Tax**
Canoe (4 hour rental)	$46.95	$53.00
Canoe (8 hour rental)	$75.11	$85.00
Pinehurst Lake	**2025 Before Tax**	**2025 After Tax**
Canoe/double kayak/peddle boat (1 hour rental)	$18.78	$21.50
Canoe/double kayak/peddle boat (4 hour rental)	$46.95	$53.00
Rockwood	**2025 Before Tax**	**2025 After Tax**
Canoe (1 hour rental)	$22.78	$26.00

Table 10: Proposed 2025 Facility Rentals

Conservation Area	*2025 Before Tax*	*2025 After Tax (rounded, as needed)*
Brant	**2025 Before Tax**	**2025 After Tax**
Grand Pavilion	$117.36	$132.50
Parkview Pavilion	$93.88	$106.50
Picnic areas	$37.55	$42.50
Byng Island	**2025 Before Tax**	**2025 After Tax**
Pavilion	$164.30	$185.50
Conestogo Lake	**2025 Before Tax**	**2025 After Tax**
Pavilion	$65.72	$75.00
Elora Gorge	**2025 Before Tax**	**2025 After Tax**
Kay Marston Pavilion Full	$455.75	$515.00
Kay Marston Pavilion A	$227.88	$260.00

Conservation Area	*2025 Before Tax*	*2025 After Tax (rounded, as needed)*
Kay Marston Pavilion B	$227.88	$260.00
Guelph Lake	**2025 Before Tax**	**2025 After Tax**
Sandy Bay Pavilion	94.25	$106.50
Sunrise Pavilion	94.25	$106.50
Laurel Creek	**2025 Before Tax**	**2025 After Tax**
Critter shelter	$164.30	$185.00
Lakeview Shelter	$112.66	$130.00
Baseball shelter	$93.88	$106.50
Pinehurst Lake	**2025 Before Tax**	**2025 After Tax**
Sutor Shelter	$112.66	$127.50
White Oaks Shelter	$75.11	$85.00
Sunset Shelter	$46.95	$53.00
Shade's Mills	**2025 Before Tax**	**2025 After Tax**
Chalet Shelter	$234.72	$265.50
Beach/Diamond/Trail Shelter	$112.66	$127.50

Table 11: Proposed 2025 Vending Item Fees

Item	2025 Before Tax	2025 After Tax *(rounded, as needed)*
Ice	$3.42	$4.00
Worms	$4.56	$5.25
Fire starter	$1.37	$1.50
Firewood - regular	$9.18	$10.50
Waterproof bags	$22.12	$25.00

Table 12: Proposed 2025 Miscellaneous Fees

Item	2025 Before Tax	2025 After Tax *(rounded, as needed)*
Dumping station fee (excluding Rockwood)	$22.12	$25.00
Trailer storage - per month (Guelph Lake / Laurel Creek)	69.89	$80.00
Trailer storage - 6 months (Byng Island / Elora Gorge / Guelph Lake / Laurel Creek)	307.96	$350.00
Deposits for amenity rentals range from $10.00 to $100.00 depending on the item rented		
Access Agreement – administrative fee	$66.37	$75.00
Access Agreement – municipal partner training exercises	$0.00	$0.00

TITLE	GRCA Fee Policy: Fee Schedule 4 – Tree Nursery
DEPARTMENT	Central Services
APPROVED DATE	October 25, 2024
EFFECTIVE DATE	January 1, 2025

Table 3: Trees, shrubs, plant material:

Price Code	Description and Examples	2025 Price per item (includes a 3% increase from 2024)
PPA	1-gallon potted conifers and shrubs (e.g. Norway spruce, white cedar, chokeberry)	$11.66
PPB	2-gallon potted shrubs and cedars (e.g. 50cm+ gray dogwood, high bush cranberry, nannyberry, pussy willow, redbud, white cedar)	$16.36
PPC	2-gallon potted conifers and small deciduous trees (e.g. 50cm+ Norway spruce, white spruce, tamarack, white pine; 60cm+ sycamore, black walnut, hoptree)	$21.20
PPD	2-gallon potted deciduous trees and 4-gallon potted conifers (e.g. 2 gallon 80cm+ bur oak, red maple, hackberry, trembling aspen; 4 gallon 40cm+ hemlock, 4 gallon 60cm+ Norway spruce)	$27.66
PPE	2-gallon potted trees of rare and/or difficult to grow species (e.g. flowering dogwood, American chestnut, butternut)	$36.18
PPF	10–15-gallon large potted deciduous trees (e.g. 200cm+ bur oak, Kentucky coffee tree, sugar maple)	$87.82
SPA	15cm+ bare root conifer seedlings (e.g. white pine, red pine)	$1.24
SPA1	20cm+ bare root deciduous seedlings (e.g. redosier dogwood, silver maple)	$1.65
SPB	20cm+ bare root conifer seedlings (e.g. white spruce, Norway spruce, tamarack)	$1.34
SPB1	20cm+ bare root deciduous seedlings (e.g. gray dogwood, staghorn sumac, white birch)	$1.80
SPC	25cm+ bare root conifers (e.g. white cedar)	$1.55
SPC1	20cm+ bare root deciduous seedlings (e.g. black walnut, ninebark, red oak, white oak)	$1.85
SPD	20cm+ bare root conifers (e.g. balsam fir, eastern hemlock)	$2.21
SPD1	20cm+ bare root deciduous seedlings (e.g. bitternut hickory, bur oak, sycamore, sugar maple, high bush cranberry)	$2.16
TPA	150cm+ bare root saplings (e.g. silver maple)	$30.48
TPB	150cm+ bare root saplings (e.g. sugar maple, red maple)	$32.18
TPC	150cm+ bare root saplings (e.g. black cherry, black oak, red oak)	$33.15
WPA	90-150cm+ bare root whips (e.g. silver maple)	$17.65

Price Code	Description and Examples	2025 Price per item (includes a 3% increase from 2024)
WPB	90-150cm+ bare root whips (e.g. red maple, sugar maple)	$18.89
WPC	90-150cm+ bare root whips (e.g. red oak, swamp white oak, white birch)	$20.39
HPL	Herbaceous plug of native wildflower and grass species (e.g. big bluestem, Indian grass, boneset, wild bergamot)	$1.29
HSN2	Native wildflower/prairie seed mix (500g bag)	$88.07
HPTRAY	Curated tray of native wildflower and grass species (72 plug tray)	$108.00
WRAPS	Spiral tree trunk guard	$1.29
MAT	Mulch mat	$1.55

Table 2: Planting Services:

Stock Type	Description	2025 Price per item (includes a 3% increase from 2024)
Tall Stock Planting Fee	Fee for hand planting of tall stock, i.e. potted and/or saplings and/or whips. Fee includes installation of mulch mats and tree wraps as required.	$12.36
Seedling Planting Fee	Fee for hand or machine planting of seedling sized trees. Fee includes spraying of herbicide as required.	$2.06
Planting in Plastic Fee	Fee for hand planting seedlings into plastic mulch. Fee includes patching up the hole with plastic square and sod staples	$4.12

Other infrequent services related to nursery operations will be considered as requested and as capacity allows. Fees for these services will be subject to the following time, material, and delivery charges:

Table 3: Other Services

Service	Description	2025 Price (no increase from 2024)
Hourly rate	Staff time.	$85.00/hr
Delivery charge	A flat rate for delivery of trees and planting materials (only applicable when trees are delivered as part of special orders).	$250.00
Material Charge	A placeholder for trees, plant materials or other materials not known at the time of the fee approval.	Rate will be charged to recoup costs

PLEASE NOTE: Tree species availability and quantities may vary year over year

Prices are per item and sold in bundles as indicated; are subject to change without notice; do not include HST; and are F.O.B. the cold storage facility in Cambridge. Due to higher costs of producing small orders, the total order must have a minimum of 200 seedling trees or 20 Saplings and/or Pots.

A NON-REFUNDABLE DEPOSIT OF $50.00 MUST ACCOMPANY EACH TREE ORDER. THIS WILL BE APPLIED TOWARDS THE FINAL INVOICE WHICH WILL BE SENT OUT PRIOR TO TREE PICK-UP.

Grand River Conservation Authority

Report number: GM-10-24-98

Date: October 25, 2024

To: Members of the Grand River Conservation Authority

Subject: 2025 Board Meeting Schedule

Recommendation:

THAT the 2025 Grand River Conservation Authority Board Meeting Schedule be approved.

Summary:

Not applicable.

Report:

The General Membership of the Grand River Conservation Authority meets on the fourth Friday of each month at 9:30 a.m. unless there is a conflict with a statutory holiday. There is no meeting scheduled in July and the December meeting will be held on the second Friday to accommodate holiday schedules. The Chair may call a special meeting at any time with three days' notice if required.

Other significant events which have been taken into consideration are:

- ROMA Conference: January 19-21, 2025
- AMO Conference: August 17-20, 2025

Additional events, such as Special Budget Meetings, Source Protection Authority meetings, tours and other special events may be scheduled as needed during the year. The Audit Committee meets at least twice per year, once in February prior to the Annual General Meeting, and again in November. The meeting dates for 2025 are shown in Table 1 and are subject to change with notice.

Meetings will be held in a hybrid format using Zoom and hosted in the Auditorium at the Grand River Conservation Authority Administration Centre, 400 Clyde Road, Cambridge. Standing Committee and ad-hoc meetings may be held virtually. Any change to the format for future meetings, whether in-person or electronic, will be determined in advance.

Table 1 – 2025 Meeting Schedule

DATE	TIME	MEETING
Friday, January 24, 2025	9:30 a.m.	General Membership *(and elections of officers)*
Wednesday, February 19, 2025	9:30 a.m.	Audit Committee
Friday, February 28, 2025	9:30 a.m.	Annual General Meeting
Friday, March 28, 2025	9:30 a.m.	General Membership
Friday, April 25, 2025	9:30 a.m.	General Membership
Friday, May 23, 2025	9:30 a.m.	General Membership

DATE	TIME	MEETING
Friday, June 27, 2025	9:30 a.m.	General Membership
Friday, August 22, 2025	9:30 a.m.	General Membership
Friday, September 26, 2025	9:30 a.m.	General Membership
Friday, October 24, 2025	9:30 a.m.	General Membership
Friday, November 28, 2025	9:30 a.m.	General Membership
Friday, November 28, 2025	11:30 a.m.*	Audit Committee **Immediately following GM*
Friday, December 12, 2025*	9:30 a.m.	General Membership **Second Friday of month*

Financial Implications:

Not applicable.

Other Department Considerations:

Not applicable

Prepared by:

Karen Armstrong
Deputy CAO/ Secretary-Treasurer

Approved by:

Samantha Lawson
Chief Administrative Officer

GRCA General Membership Meetings Calendar

2025

January

s	m	t	w	t	f	s
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	GM	25
26	27	28	29	30	31	

February

s	m	t	w	t	f	s
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	GM	

March

s	m	t	w	t	f	s
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	21	20	22
23	24	25	26	27	GM	29
30	31					

April

s	m	t	w	t	f	s
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	GM	26
27	28	29	30			

May

s	m	t	w	t	f	s
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	GM	24
25	26	27	28	29	30	31

June

s	m	t	w	t	f	s
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	GM	28
29	30					

July

s	m	t	w	t	f	s
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	*	26
27	28	29	30	31		

August

s	m	t	w	t	f	s
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	GM	23
24	25	26	27	28	29	30
31						

September

s	m	t	w	t	f	s
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	GM	27
28	29	30				

October

s	m	t	w	t	f	s
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	GM	25
26	27	28	29	30	31	

November

s	m	t	w	t	f	s
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	GM	29
30						

December

s	m	t	w	t	f	s
	1	2	3	4	05	6
7	8	9	10	11	GM	13
14	15	16	17	18	19	20
21	22	23	[illegible]	25	26	27
28	29	30	31			

Agenda Published

GM General Membership Meeting

Audit Committee

Holiday/Head Office Closed

* No meeting scheduled in July

Grand River Conservation Authority

Report number: GM-10-24-90

Date: October 25, 2024

To: Members of the Grand River Conservation Authority

Subject: Grand River Conservation Authority Ice Management Plan

Recommendation:
THAT the Ice Management Plan be approved and implemented.

Summary:
Not Applicable

Report:
Under the *Conservation Authorities Act* and *Ontario Regulation 686/21*, the Grand River Conservation Authority (GRCA) is required to have an Ice Management Plan. Historic development has occurred in floodplains in Ontario and in the Grand River watershed locally. In some locations throughout the Grand River watershed, this historical development may be at risk of flooding from ice jam induced or enhanced floods.

Ice jams are a naturally occurring phenomena in rivers in cold climates. Many factors affect ice formation, ice accumulation and ice break. All these factors influence the risk of ice jams along with the weather conditions at the time ice breaks up. While the risk of ice jams can be inferred or anticipated, ice jams cannot be predicted or forecast. The main focus if ice management in the Grand River watershed is awareness of potential for ice jams, anticipating when break up may occur and monitoring conditions during ice breakup. GRCA Ice Management Plan includes a discussion of approaches used to monitor ice conditions, anticipate the potential for ice jams, mitigate ice jam potential where possible and monitor ice conditions during the breakup process.

As part of Ice management plan, ice formation processes in the Grand River Watershed have been discussed, historical formative floodings as a result of ice jams have been catalogued and high-level approaches for prediction of the potential of ice jams have been presented and discussed based on available climate data and empirical approaches developed in the watershed over time.

The GRCA Ice Management Plan is a compilation of current knowledge and experience and is intended to be a living documents, updated on a five-year basis as knowledge and experience with ice evolves.

Financial Implications:
The funds required to be allocated for tasks related to ice management in the watershed including upgrading current monitoring equipment as well as installation of new sensors are estimated to be around $140,000 over the next three years which can be funded through the Land Sales Reserve.

Other Department Considerations:
Not applicable

Prepared by:
Vahid Taleban, M.Sc., P.Eng..
Manager of Flood Operations

Approved by:
Samantha Lawson
Chief Administrative Officer

Grand River Conservation Authority
Ice Management Plan
Approval Date: October 25, 2024

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1.0 Introduction and Overview

River and lake ice formation, break up, jamming, and ablation are natural processes in rivers and lakes in northern climates. Ice processes shape river channels and overbanks and can cause river channels to migrate or shift over time in response to ice processes. Ice processes naturally occur and often go unnoticed unless development has occurred in floodplains adjacent to rivers and water courses in the associated floodplain.

Historic development has occurred in floodplains in Ontario and in the Grand River watershed locally. In some locations throughout the Grand River watershed this historical development may be at risk of flooding from ice jam induced or enhanced floods. Ice jams impede the movement of water obstructing flow in the main channel causing flood water to back up and forcing flood water into the adjacent floodplain resulting in flooding. If historic development is present in the floodplain, flooding of roads and structures may occur. In addition to flooding structures, ice blocks and sheets that leave the main channel may push into structures located in the floodplain and exert ice loading and shearing forces on structures close to the main channel.

Ice is an important consideration when designing infrastructure like bridges and crossings over rivers and watercourses. Where ice is a significant consideration, particularly on large rivers, it is important to span the floodplain to leave room for ice to travel under the bridge and gain relief in the floodplain adjacent to the main channel. It is also important when designing infrastructure to consider ice loading on structures like bridge, dams, floodwalls, and dikes.

The Hurricane Hazel flood event is the flood standard used to map and define the flood hazard limits in the Grand River watershed. This flood standard is sufficiently large enough that in most cases the limits of potential ice jam flooding are within the hazard limits determined by the Hurricane Hazel flood standard. One exception to this is dike reaches; through dike reaches, the floodplain is constrained, and the ability of ice and flood flows associated with an ice jam to gain relief is restricted. The flood hazard limit in some of these reaches may be governed by the ice jam flood hazard. Dike reaches and ice jam considerations for specific dike reaches are addressed later in this document.

Many factors affect the formation, breakup, and ablation of ice in a watershed. The complexity of ice processes makes ice jams impossible to predict whether an ice jam will occur or how severe an ice jam will be. It is possible to anticipate potential for ice jams based on ice conditions in a river system, the watershed conditions, and the weather forecast at the time of ice formation and at the time of breakup. This report includes a discussion of approaches used to monitor ice conditions, anticipate the potential for ice jams, mitigate ice jam potential where possible, and monitor ice conditions during the breakup process.

Later in this report, a discussion of specific communities with a history of ice jam flooding is included. A history of ice jams floods is included for specific communities where information is readily available. This report includes a discussion of the factors or river characteristics affecting the potential for ice jams flooding in communities frequently impacted by ice jams. Recommendations of any further actions to monitor, anticipate, and, if possible, reduce the potential for ice jams is included for each community.

This document is a compilation of current knowledge and experience and is intended to be a living document, updated on a five-year basis as knowledge and experience with ice evolves.

2.0 Watershed Communities Vulnerable to Ice Jam Flooding

Communities vulnerable to ice jam flooding in the Grand River are summarized in Table 1. A qualitative assessment is included in this table of frequency and potential severity of ice jam flooding.

Table 1 Communities Vulnerable to Ice Jam Flooding

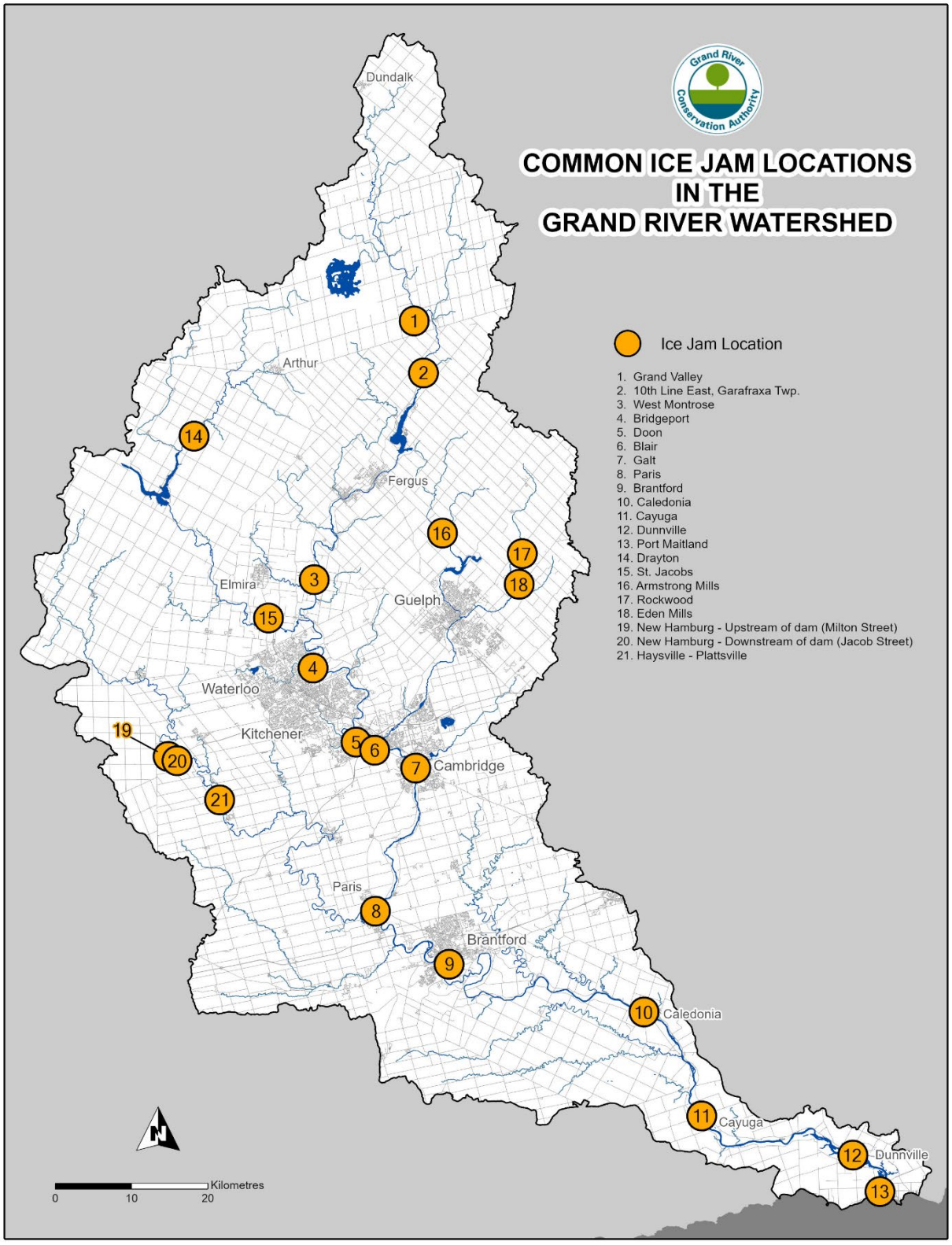
Site#	Location	Frequency	Impacts	Mitigation Works or Factors	Ability to Monitor or Detect Ice Jam
1	Grand Valley	Semi frequent	Roads and Buildings	Luther Dam Historic Dredging	(Potential for Gauge)
2	10th Line East Grafraxa Twp.	Frequent	Road		Historically
3	West Montrose	Frequent	Roads and Buildings	Shand Dam/Historic Dredging	Camera and Gauge
4	Bridgeport	Infrequent	-	Dike	Gauge
5	Freeport	Infrequent	Roads and Buildings		
6	Doon	Frequent	Trailer Park and STP*	Mannheim/Hidden Valley Dam	
7	Blair	Frequent	Buildings	Mannheim/Hidden Valley Dam	(Potential for Gauge)
8	Galt U/S of Parkhill Dam	Frequent	Municipal Rowing Club	Dike	(Potential for Gauge)
9	Galt D/S of Parkhill Dam	Infrequent	Road and Gas Station	Dike/ Parkhill Dam	Gauge

Site#	Location	Frequency	Impacts	Mitigation Works or Factors	Ability to Monitor or Detect Ice Jam
10	Paris	Infrequent	Road and Buildings	Dike/Paris Dam	Municipal Level Gauge
11	Brantford	Frequent	Road and Buildings	Dike/Wilkes Dam	Camera and Gauge
12	Six Nations of the Grand River 4th Line and Bateman Line	Frequent	Road and Access to Buildings		
13	Caledonia Upstream of Dam	Frequent	Roads and Buildings	Partial Dike	**(Potential for Gauge)**
14	Caledonia Downstream of Dam	Infrequent		Partial Dike	
15	Cayuga	Frequent	Roads and Buildings		**(Potential for Gauge)**
16	Dunnville Upstream of Dam	Frequent	Roads and Buildings		**Gauge**
17	Dunnville Downstream of Dam		Roads and Buildings, STP*, Arena		**Gauge**
18	Port Maitland	Frequent	Roads and Buildings		**Gauge**
19	Irvine River Salem				
20	Drayton				

Site#	Location	Frequency	Impacts	Mitigation Works or Factors	Ability to Monitor or Detect Ice Jam
21	St. Jacobs	In frequent 1958	STP*, Buildings	St. Jacobs Dam	
22	Armstrong Mills	Semi frequent	Buildings Driveways		**Gauge**
23	Rockwood	Semi frequent	Roads, Driveways, Buildings		
24	Eden Mills	Semi frequent			
25	Nith Above New Hamburg	Infrequent			
25	New Hamburg	Semi frequent		Partial Dike/New Hamburg Dam	**Gauge**
26	Haysville	Semi frequent			
27	Plattsville - Oxford Twp	Semi frequent			
28	Drumbo	Semi frequent			

***STP-Sewage Treatment Plant**

Figure 1: Communities Vulnerable to Ice Jam Flooding Grand River Watershed



3.0 General History of Ice Jam Floods

A qualitative summary of major ice jams is included in Table 2. The information in Table 2 is specific to major ice jams. Several minor ice jams may have occurred over the years but information presented in Table 2 is intended to summarize major events referenced in the 1982 basin management study with observations added since that time. The original information compiled in the 1982 basin management study was referenced from newspaper articles and conservation reports including the 1954 and 1962 Grand River Hydraulic reports.

Of particular note are the February 2018 ice jam that caused overtopping of the Brantford dikes and ice jam damage in the City of Cambridge, the February 2009 ice jam that caused severe flooding in the communities of Cayuga and Dunnville, the February 1996 ice jam that caused near overtopping of the Brantford dikes, the 1981 ice jam in the community of West Montrose is the highest on record in that community and threatened damage to the West Montrose covered bridge, and a 1979 ice jam caused severe flooding in the community of Paris.

Table 2 Chronology of Major Ice Jams Grand River Watershed

Year	Locations
1852	Galt, Brantford (March 14)
1857	Galt, Cayuga (February 14)
1860	Galt, Brantford (March 4)
1861	Brantford (March 2)
1865	Galt (March 21)
1866	Galt
1867	Galt
1870	Bridgeport (April 7)
1893	Brantford (March 6)
1898	Blair, Bridgeport (March 12)
1899	Brantford (March 16); Salem (April 11)
1900	Galt (February 8); Brantford (April 1)
1902	Elora, Fergus
1903	Elora, Fergus

Year	Locations
1904	Galt, Brantford (March 26)
1905	Fergus (March 24); Hespeler (March 25)
1913	Galt, Brantford, Freeport (March 13); Dunnville (March 15)
1918	Galt, Brantford (February 20)
1922	Galt (March 7)
1928	Blair (March 25)
1929	Salem, Freeport, Cayuga (March 15)
1930	Dunnville
1934	Bridgeport, Galt, Brantford, Cayuga (March 3)
1939	Grand Valley (March 29)
1942	New Hamburg (March 10)
1948	Grand Valley, Caledonia (March 10); Dunnville (March 17)
1950	Caledonia
1951	Caledonia
1952	Freeport
1954	Caledonia
1965	Caledonia
1971	West Montrose
1972	Grand Valley (April 14)
1974	Grand Valley (March 5); West Montrose
1975	West Montrose
1976	West Montrose

Year	Locations
1977	Caledonia, Dunnville, West Montrose
1979	Paris (March 5)
1980	West Montrose
1981	Paris (February 19); Dunnville (February 22); West Montrose (February 23)
1986	Brantford, Drayton (March 13); West Montrose, Ayr, New Hamburg
1987	Grand Valley (April 4)
1988	New Hamburg, Brantford (February 1)
1989	10th Line Bridge (February 1); Bloomingdale, Moorefield, Drayton (March 15); Rockwood (March 16)
1990	Sims Locks (January 18); 10th Line Bridge evacuation (March 12); Wellesley (December 29); New Hamburg (December 30)
1991	New Hamburg (March 2)
1992	Grand Valley (March 9)
1996	Brantford in February
2004	Ice jam in Paris
2009	Cayuga and Dunnville in February
2018	Cambridge and Brantford in February
2019	West Montrose

4.0 Ice Processes in the Grand River Watershed

4.1 Ice Formation Process

Communities vulnerable to ice jams in the Grand River Watershed are summarized in Table 1. A qualitative assessment is included in this table of frequency and potential severity of ice jam flooding. There is nuisance ice jam flooding that occurs naturally in the rivers' floodplain and if it does not affect structures or roads, it often goes unnoticed as simply a natural process. In other areas, structures and roads are impacted by ice jams and this document focuses more on those

areas where there is a risk or structural flooding or infrastructure flooding is a potential impact from ice jams. This document strives to explain the ice jam processes in those communities.

The frequency of ice jams varies depending on many factors, including how cold the weather is during the winter, how the freeze-up occurred over the winter, whether there were midwinter breakups that caused ice jams that froze in place, and whether rapid melt occurred not allowing time for ice to erode or loosen up before river flows increased. Whether ice jams occur and the severity of these jams is affected by these factors.

There are mitigating circumstances for ice in the watershed. A classic example is the large reservoirs. The large reservoirs act as ice storage areas so for the drainage area above Shand, Conestogo, Guelph, and Woolwich dams, ice is stored in these reservoirs and doesn't affect downstream areas often. An overlooked value of these large reservoirs is their ice mitigation properties. Further mitigating factors that help reduce the potential of ice jams will be discussed later in this document.

4.2 Types of Ice and Processes Leading to Ice Formation

It is first useful to discuss and classify the different types of ice. While there are many types or descriptions for types of ice, this document will simplify the descriptions into three categories. These include sheet ice, frazil ice, and conglomerate ice which can be a combination of sheet ice frazil and frazil ice.

4.2.1 Sheet Ice

Sheet ice typically forms on slow-moving water surfaces upstream of dams, riffles, and rapids in a river system, in areas where water ponds. Sheet ice forms a smooth surface and depending on the severity of the winter may continue to build over the winter to a significant thickness of ice, varying between 0.1 meters to a metre thick. In very severe winters if flows are very low in the river, sheet ice may actually freeze to the bottom of the river and anchor to the bottom of the river.

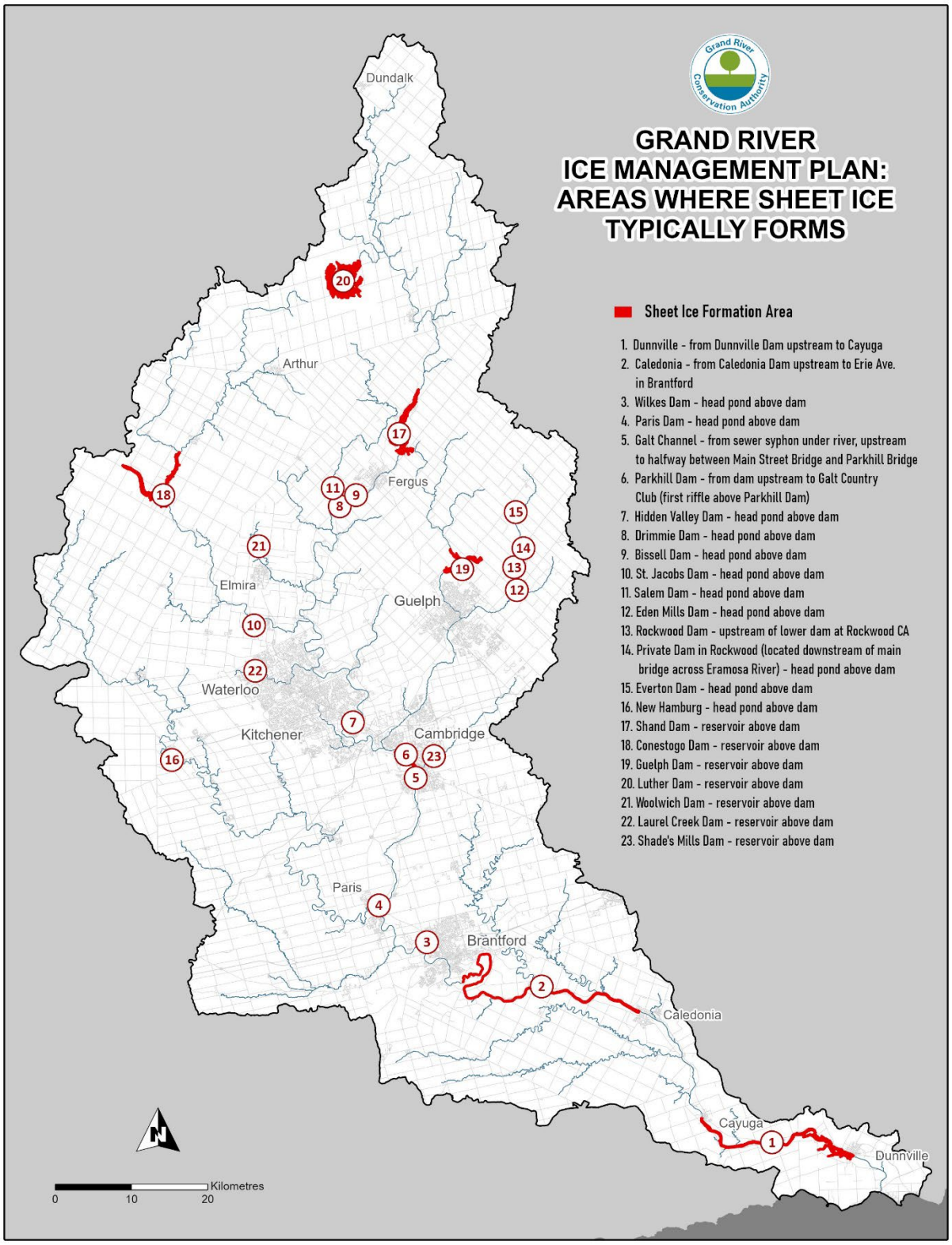
Examples of sheet ice areas in the Grand River are upstream of the seven large dams and upstream of low-head dams, Dunnville, Caledonia, Wilkes, Paris, Parkhill, Hidden Valley, Bissell, St. Jacobs, Salem, Rockwood, Eden Mills, and New Hamburg low-head dams. Sheet ice also forms in flat reaches. Examples of flat reaches are downstream of Conestogo Dam and through the Kitchener-Waterloo Reach, downstream of the confluence of the Conestogo River to the Hidden Valley Dam. In the Grand River, the river slope downstream of Brantford changes to a very flat slope downstream of Erie Avenue. Sheet ice forms from the Caledonia Dam upstream through the oxbow to upstream of Erie Avenue in the City of Branford. This sheet ice area is located immediately downstream of the City of Branford dikes and influences the potential for ice jams through the dike reach. The Brantford dike reach will be discussed in more detail in this document. Figure 2 illustrates the location of low-head dams and river reaches where sheet ice typically forms. Sheet ice can form some of the strongest ice in the river. Strong sheet ice forms in extremely cold conditions such as double-digit below freezing temperatures persistent for an extended period of time. The winter of 2018 was a good example of a winter with strong persistent cold conditions that produced strong sheet ice and a large volume of ice.

Strong sheet ice is often referred to as blue ice, the ice has a bluish tinge to it and it's extremely strong. Strong sheet ice formed in the winter of 2018. Sheet ice can be anywhere from a few centimeters up to meters thick, the strong ice is resistant to break up and can obstruct ice movement from upstream areas backing up water and forming ice jams and in some cases ice dams. In the winter of 2018, an ice jam and later an ice dam formed upstream of the Parkhill Dam, which later released and sent a wave of water down the river. The wave of water and ice is termed a “jave”.

The release of ice and water during the February 2018 ice dam that released a jave which had a similar effect to a dam break; water and ice were stored behind the ice jam, which formed a barrier similar to a dam that subsequently released a wave of water and ice similar to a dam break. The resultant jave sent sheet ice on to highway 24 immediately downstream of Cambridge, sheet ice blocks were several metres deep over highway 24. The release of the Cambridge ice jam contributed to the overtopping of the Brantford dikes. Figure 3 illustrated sheet ice blocks on Highway 24 through the City of Cambridge downstream of the diked reach in that community.

This event also provides an illustrative example of strong sheet ice blocks. The movement of strong sheet ice can also cause extreme damage. The strong sheet ice blocks can be pushed under the floodplain and if structures are present those structures may be moved off their foundation and severely damaged. Sheet ice blocks can push onto on roads and crush or damage vehicles when the ice sheet moves on to the roads. It was fortunate that the ice jam release in February 2018 occurred at approximately 1:00 a.m. when vehicle traffic was greatly reduced on Highway 24 south of Cambridge. One vehicle was affected on Highway 24 that morning and emergency crews had to rescue the occupant. Sheet ice blocks can shear off trees along the banks of the river as they move downstream and reform and shape riverbanks as they transit a river.

Figure 2: Locations of Dam and Reaches Where Sheet Ice Typically Forms



Figures 3a and 3b: Examples of Sheet Ice Blocks Highway 24 City Of Cambridge 2018 Ice Jam

4.2.2 Frazil Ice

Another type of ice that forms in the river is frazil ice, which is composed of fine ice crystals that form in the water. When the water surface is super cooled, ice crystals form on the surface during cold conditions where turbulent water is present. Turbulent flow is present in river rapids, water falls and steep sections of the river. A significant amount of ice crystals form in a specific steeper reaches of the river where turbulent flow and rapids exist. Reaches like the river through the Elora Gorge, downstream of the City of Cambridge to Brantford, downstream of Caledonia to Cayuga, the southern Nith River downstream of Ayr, and the Conestogo River downstream of the Conestogo Dam. These are reaches of river that can generate large volumes of frazil ice. Figure 4 illustrates a map that depicts reaches of river that can generate frazil ice given specific flow and temperature conditions.

Conditions that are conducive to generating frazil ice are cold double digit below freezing conditions, windy conditions, and snowy conditions. If flows are low, fewer reaches or a lesser extent of the river will generate frazil ice and if little or no flow exists frazil ice may not be generated. This is important to note when referring to figure 4. Figure 4 indicates the reaches that have high potential to generate frazil ice, however if flows are very low when cold windy conditions develop, some of the reaches indicated in Figure 4 may not generate frazil ice. A good example is the upper Conestogo, if moderate to high flows are present that reach can generate frazil ice, but if flow is very low, limited amounts of frazil ice are generated. Very cold conditions, windy conditions, snowy conditions, and moderate to high flow conditions together influence frazil ice production.

The largest amount of frazil ice typically forms when higher flows are present coupled with double digit below freezing cold air temperatures. Windy conditions can further super cool turbulent reaches of the river and the river can become a frazil generating machine capable of generating large volumes of frazil ice.

Frazil ice travels downstream until it encounters sheet ice upstream of low-head dams for example and then that frazil ice will become stationary and start to accumulate. As frazil ice accumulates, it can fill the main channel of the river between the banks, choking off flow and

forcing water into the floodplain adjacent to the river. As frazil ice continues to fill the channel, the frazil ice blockage or jam will progress upstream, more frazil flows down, gets blocked, fills the river channel and the process continues. If frazil ice generation continues, it will continue to accumulate and work back upstream until it reaches areas of turbulent water and will begin to drown out the reaches generating frazil ice.

Alternately, weather conditions may change and warmer temperatures will reduce the amount of frazil ice being generated. River flow may decline and reduce the amount of turbulent water in reaches. This can also reduce frazil ice generation. It's important to realize the river has almost a limitless ability to generate frazil ice if high and cold conditions persist. The process continues until either the turbulent reaches are drowned out, the temperatures warm, or the flows subside. To put in perspective the immense capacity of the river to generate frazil ice, the winter of 2004 provides a good example.

In 2004 there was a mid-winter melt which increased river flow; extreme cold conditions followed the melt. As a result of subsequent snowy conditions, frazil ice began to form and accumulate at the leading edge of sheet ice downstream of Brantford in the oxbow portion of the river. Frazil ice continued to accumulate and fill the river channel all the way upstream to the town of Paris. Frazil ice filled the river from bank to bank through the entire river reach from Brantford to the Paris Dam, eventually filling the river to the height of the Paris dam which is 3 metres high. Figure 5 illustrates a picture of the Paris Dam from downstream of the dam, the dam is hardly visible as a result of the river channel downstream of the dam being filled with frazil ice.

Frazil ice is different than sheet ice; it is weaker and more prone to erosion by water. However, if a sudden melt occurs, frazil ice obstructs the channel's capacity to convey flow, and as a result flow is forced onto the floodplain. Frazil ice degrades faster than sheet ice, however what often happens is if the sheet ice starts to break up and frazil ice is in the channel, the sheet ice and frazil ice form an ice jam together, blocking channel flow and forcing flow on to the floodplain and potentially consolidating. If frazil and sheet ice consolidate and freeze into place, an ice jam can form that is very resistant to ablating or releasing.

Figure 4: Map Illustrating Typical Reaches of River Where Frazil Ice is Generated

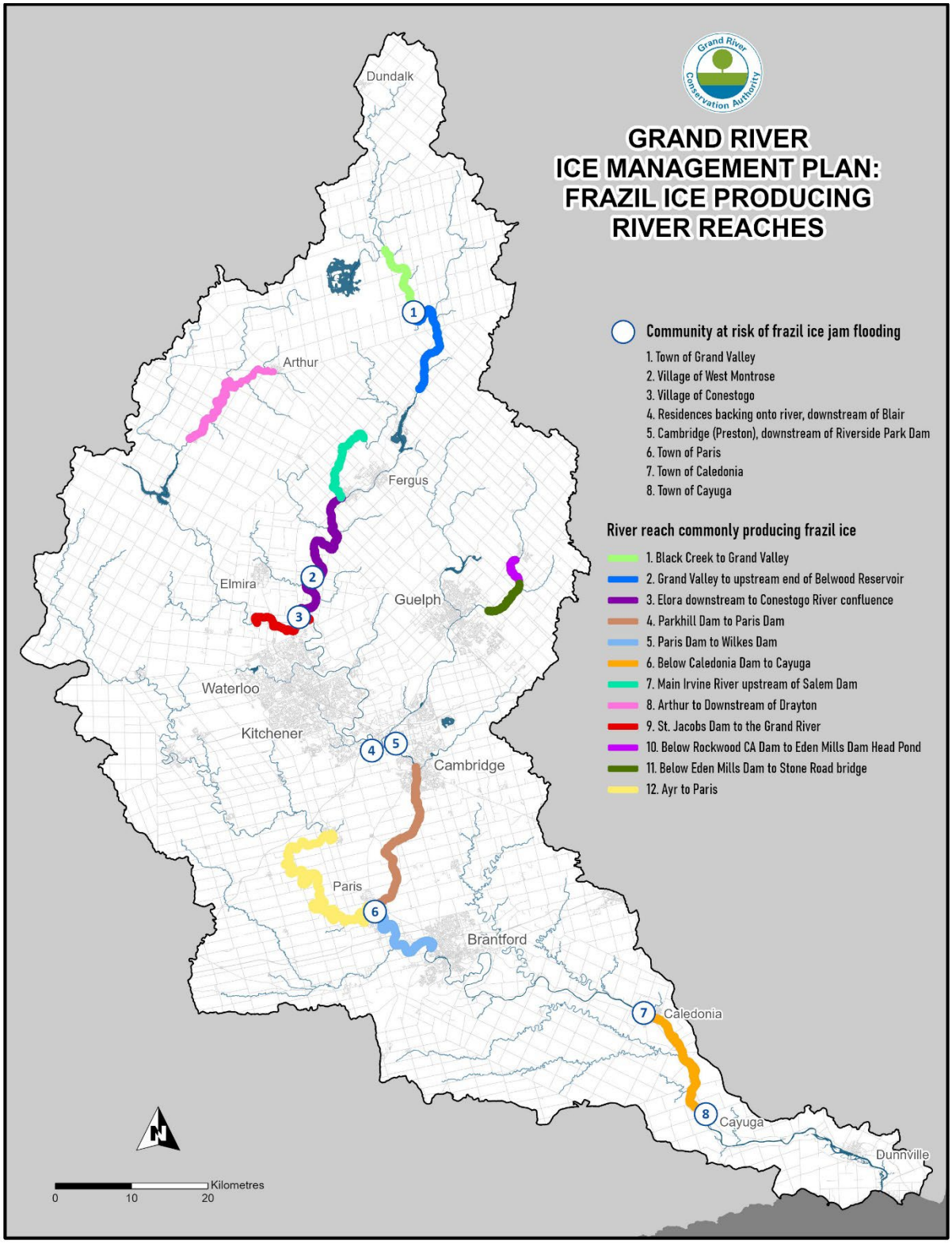


Figure 5: Picture of Paris Dam January 2004 River Channel Filled with Frazil Ice

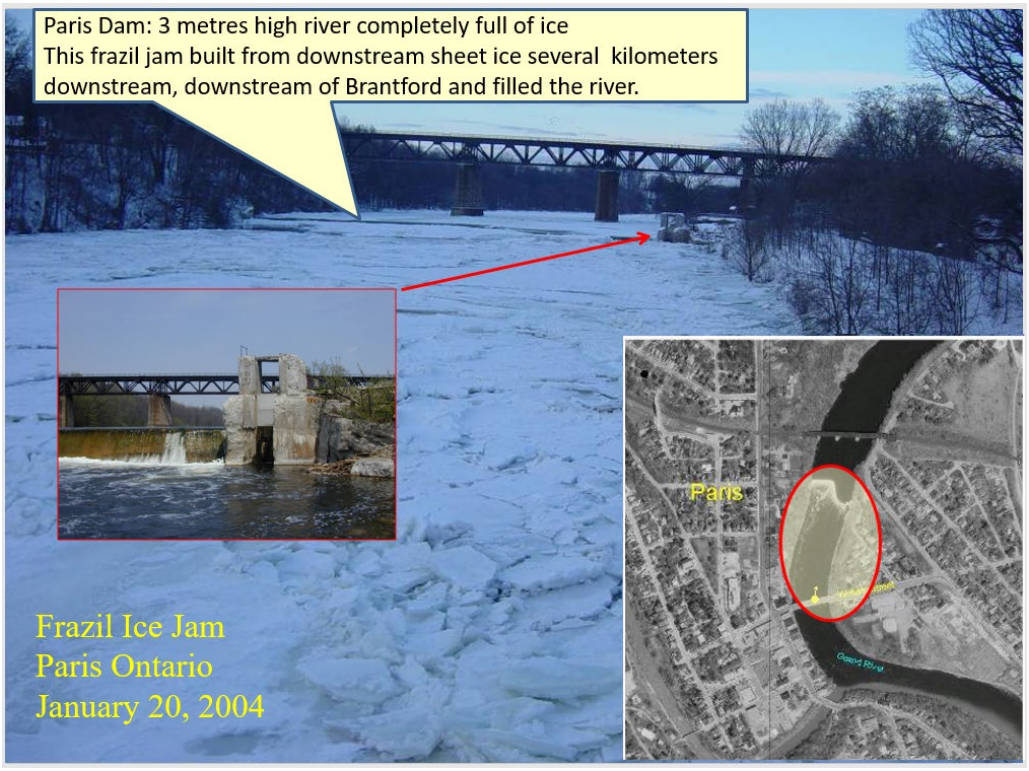


Figure 6: Frazil Ice January 2004 Downstream of the City of Brantford

4.2.3 Conglomerate Ice

The third type of ice is conglomerate ice. Conglomerate ice is a mix of broken-up sheet and frazil ice. Conglomerate ice jams often form during early winter melts. Early winter or mid winter melts are often rapid short-lived melts. Theses melts tend to generate flow into the river, start to move ice sheets, and are often followed by a flash freeze. Often weather conditions during these mid winter melts can change from double digit warm temperatures with rain to below freezing double digit temperatures with high flows in the river as a result of melting snow and rain. These mid winter melt conditions create the ideal conditions for moving sheet ice and generating frazil ice, which is a very undesirable combination from an ice jam perspective.

Conglomerate ice jams often occur at the upstream end of the sheet ice reaches identified in Figure 2. The length of time of the mild temperatures and the magnitude of flows in the river are often not sufficient to lift or move the sheet out of the reaches identified in Figure 2, however flows can be sufficient to move the thinner sheet ice in other reaches of the river and send it downstream until it encounters the leading edge of strong sheet ice. This was the case during an early winter melt in January 2018. Sheet ice upstream of Cambridge travelled down the Grand River and jammed at the leading edge of the sheet ice upstream of Parkhill Dam. Sheet ice south of Cambridge and in the Nith River travelled down to Brantford and jammed at the leading edge of sheet ice downstream of the Brantford dikes.

After the mild conditions, extreme cold conditions returned, causing large amounts of frazil ice to form and flow downstream and collect in the location where the sheet ice jammed. The sheet ice jam and frazil ice fused to create a conglomerate ice jam. The frazil ice filled the voids between the jammed and jumbled ice sheets. The cold conditions also caused new sheet ice to form in upstream reaches above the ice jams in Cambridge and Brantford.

Conglomerate ice jams can be quite thick, up to several metres thick, they can choke off capacity of the main channel to convey flow and ice and can be very resistant to break-up. It takes a longer period of flow and mild temperatures to degrade a conglomerate ice jam. The major ice jam that occurred in 2018 in Cambridge and Brantford resulted from conglomerate ice jams being in place downstream of Brantford and upstream of Parkhill Dam in the City of Cambridge combined with a rapid February melt and the highest daily rainfall ever observed in the month of February. The rapid melt and increase in flow did not allow time for the conglomerate ice jams to degrade before new ice and debris travelled down the river and backed up behind these ice jams. The situation was further complicated when the ice jam in Cambridge formed a temporary ice dam that released and sent a wave of ice and debris down the river, a Jave. The Jave slammed into the ice jam in place in Brantford and caused overtopping of the Brantford dikes.

The picture in Figure 7 illustrates an ice block that was deposited in the floodplain downstream of the Brantford dikes. This picture helps illustrate the composition and size of conglomerate ice that was in the river channel downstream of the Brantford dikes impeding flow. It also illustrates the jumbled mix of sheet ice, frazil ice and in some cases debris in conglomerate ice and the immense thickness of conglomerate ice.

Figure 5: Example of Conglomerate Ice February 2018 Ice Jam Grand River at Brantford

4.4 Moderating Factors Affecting Ice and Ice Jams

There are several factors that can moderate or influence ice formation and ice jams in the Grand River watershed. This section discusses some of the factors or considerations that moderate ice and risk of ice jams.

4.4.1 Influence of Large Reservoirs on Ice

The large reservoirs in the Grand River watershed can influence and moderate ice in many different ways.

First of all, the large reservoirs act as ice storage areas as they store the ice from the drainage areas upstream of the reservoirs. Large reservoirs providing significant ice storage include Shand, Conestogo, Guelph, and Woolwich dams. Their ability to store ice and moderate flows from upstream areas helps reduce flood risk to downstream communities.

The large reservoirs also provide flow regulation both during freeze-up when the ice sheet initially forms and during breakup periods whether they be mid-winter melts or the spring breakup and melt. During the freeze-up period, reservoirs can be used to reduce downstream flows as much as possible to initiate ice sheet formation at flows as low as possible. A rule of

thumb is that it takes as much flow in the river to break up the ice as was there when the ice initially formed. There are other modifying factors to that rule of thumb but ideally, for ice management purposes, it is best to initiate ice cover at as low flow as possible.

During breakup, the reservoirs can moderate downstream flows to reduce pressure on existing ice jams and provide time for existing downstream ice jams to degrade and break up. The reservoirs delay flood peaks from upstream areas above the reservoirs to give the downstream areas where ice jams may be in place time for ice to degrade. This is an important ice management strategy that can be achieved with these large reservoirs. This approach was important during the February 2018 event when the ice jam was intact in the Brantford dike reach.

A final often unrecognized benefit of the large reservoirs is winter flow augmentation. Winter flow augmentation helps avoid the ice sheet freezing to the bottom of the river. The constant flow discharged by the reservoirs over the winter creates a separation between the ice sheet and the bottom of the river. If the ice sheet freezes to the bottom of the river it is more resistant to break up during the spring breakup and melt creating a higher potential for ice jams.

The reservoirs can also be used to try to moderate flows during mid-winter melts or periods when extreme cold conditions exist that cause frazil ice to be generated in the river. A challenge with mid-winter melts in recent years is the mild conditions that cause the melt are often followed by flash freezes of extreme cold conditions. The extreme cold conditions generate frazil ice. The large reservoirs can be used to help reduce downstream flows which subsequently reduces the potential for frazil ice creation.

Mid-winter melts create challenging times for reservoir operations, but they can be used to help moderate downstream frazil ice creation. Stored water in the reservoirs often has to be released to recover flood management storage in these reservoirs. There is often a narrow window to discharge stored water before the downstream ice sheet starts to form. These competing objectives of limited downstream frazil ice creation and recovering reservoir flood management storage have to be weighed and balanced in the periods following a mid-winter melt.

4.4.2 Impacts of low-head dams on Ice

Low-head dams can influence ice in both positive and negative ways. Low-head dams initiate sheet ice formation in the backwater area upstream of the low-head dam. The sheet ice that forms upstream of low-head dams may be very strong and may be resistant to breaking up when there is a melt event. This can cause upstream ice jams to occur at the leading upstream edge of the sheet ice above these dams. One example of this is the sheet ice upstream of Dunnville Dam which extends up to the community of Cayuga, contributing to the ice jam risk in that community.

Low-head dams can create a finite amount of ice storage, providing some benefit to downstream areas. Caledonia dam creates a large upstream ice storage area, providing benefits to downstream communities of Cayuga and Dunnville.

Generally, a benefit provided by low-head dams is that as the ice sheets go over the low-head dams, then it is broken into smaller blocks or chunks of sheet ice. This is important for downstream areas as smaller ice blocks and chunks can more easily transit to the river. A good

example of this ice management benefit is the Cambridge-Galt reach of the Grand River downstream of Parkhill Dam. The Parkhill Dam causes the ice sheet to break into smaller chunks that then can transit to the downstream flood channel between the Cambridge dikes more easily avoiding ice jams in the flood channel itself.

The influence of low-head dams from an ice management perspective needs to be carefully assessed when low-head dams are being evaluated for potential removal. Figure 2 identifies the low-head dams that influence ice in the larger rivers in the Grand River watershed.

4.4.3 Influence of Wastewater Discharge to the River

There are several wastewater plants in the Grand River watershed that discharge treated effluent to the river system. The treated effluent is warmer in temperature compared to regular river water. This warmer water can moderate ice for finite reach downstream of the wastewater discharge. This is most notable on the Speed River; the Guelph sewage treatment plant discharge is a large percentage of the Speed River low flow discharge downstream of the City of Guelph. The warm effluent combined with groundwater discharge in the river valley downstream of Guelph moderates ice in the Speed River downstream of Guelph to the Grand River.

The other benefit of wastewater discharge from an ice management perspective is, like winter flow augmentation from the large dams, the flow from these plants helps avoid the ice sheet freezing to the bottom of the river.

4.4.4 Groundwater Discharge

Groundwater discharge is a significant component of flow in the Grand River south of Cambridge, the Nith River downstream of New Hamburg, the Speed River downstream of Guelph, and the Eramosa River system. The temperature of groundwater discharge is approximately equal to the mean annual temperature, so in the Grand River watershed it would be approximately around 8 degrees Celsius. The warmth of groundwater during winter months and the flow volume provided by groundwater can help moderate ice. The warmth of the groundwater can help melt and degrade ice and the groundwater flow helps prevent the ice sheet freezing to the bottom of the river. Groundwater discharge can also help moderate the ice sheet freezing to the shore in some reaches. The groundwater discharges at the shore valley interface, which are often open sections of the ice sheet that can be observed along the shore.

It is hard to quantify the benefits of groundwater discharge and its influence on ice and ice jam risk. However, from a qualitative perspective, if conditions have been dry or if extended drought conditions have existed, the volume of groundwater discharge to the river system will be diminished and it may be inferred that there is a higher potential for ice formation and ice jams in the river.

Information from the groundwater monitoring network and flow gauges can assist in assessing the state of the groundwater system and groundwater discharge present in the river system.

5.0 Ice Jam Forecasting

Many factors affect whether ice jams actually occur. These can include the amount and strength of ice in the river, the existence of frozen ice jams from previous melt events, and how spring breakup occurs. A gentle spring breakup and melt over an extended period of time can degrade and ablate the ice and ice jams may not occur. Ideal conditions for spring breakup are

moderately warm daytime temperatures followed by cool above freezing nighttime temperatures over several days. These types of conditions create a slow release of melt water to the river which allows the ice to degrade, weaken, and dissipate without forming jams. A sudden melt coupled with warm temperatures and rain causes river flows to increase rapidly with little or no time for the ice to erode, weaken, and dissipate. If there is a lot of ice in the river and the ice is strong, sudden melt conditions are likely to result in ice jams.

The severity of the ice jam will depend on the volume of ice, strength of ice, and magnitude of flow. All these factors conspire to affect the severity of an ice jam. Based on the above, it is important to understand that it is not possible to accurately quantify or forecast ice jams. It is possible to anticipate conditions that are conducive to ice jams, or to anticipate the potential for ice jams but where, when, and how severe the ice jams will occur cannot be forecasted.

Ice jam potential and the type of ice jam can be grouped into three categories. These categories include freeze-up ice jams, mid winter breakup ice jams, and spring break ice jams.

5.1 Freeze-up Ice Jams

Freeze-up ice jams occur at the start of winter when temperatures start to cool and there is an absence of sheet ice in the river. Sheet ice will start to form first, and if flows are low, sheet ice formation may proceed without incident. Ice conditions for sheet ice formation are low flows and moderately cold conditions. If flows are high in the river heading into winter freeze-up and severely cold temperatures exist, frazil ice will be generated during the freeze-up process. Frazil ice will accumulate at the upstream leading edge of the sheet ice and continue to fill the space between the channel banks with frazil ice.

The severity of the frazil ice accumulation is very dependent on flow and temperature. If flows are low to moderate, less frazil ice will be generated. Lower volumes of frazil ice will reduce the potential for severe flooding. The main channel between the banks of the river may fill with ice and water levels and ice will rise to the point when flow can find relief on adjacent floodplains. If flows are higher, more frazil ice is generated, water and ice levels will rise and find relief on the adjacent floodplain to the point where the river flow has found sufficient relief on the floodplain to bypass the ice-filled channel and lower portion of the floodplain. Flows and ice will find an equilibrium. Communities susceptible to frazil ice jam flooding include the Village of West Montrose and Town of Paris.

5.2 Mid Winter Ice Jams

Mid winter breakup ice jams have different characteristics than freeze-up ice jams. During mid-winter break up, sheet ice and frazil are present in the river system. Mid-winter breakup flows are often not sufficient to break up and flush ice out of the whole river. Sheet ice movement may occur in some reaches which will flow down the river and typically accumulate at the leading edge of sheet ice above the low-head dams. If river flows are high enough, sheet ice above the low-head dam may release and flow downstream to the next low-head dam and accumulate.

Depending on the magnitude of flow, some of the sheet ice may be deposited in the adjacent floodplain. Two points of potential large volumes of sheet ice accumulation and ice jams are downstream of the City of Brantford at the leading edge of the sheet ice through the oxbow and upstream of Parkhill Dam at the leading edge of the sheet ice upstream of Parkhill Dam. If flows are sufficient, sheet ice upstream of Parkhill Dam will release and flow downstream accumulating downstream of the City of Brantford. Its important to note that downstream of the

City of Brantford there are typically kilometres of sheet ice through the oxbow reach all the way down to the Caledonia Dam. For sheet ice to move out of the areas downstream of the City of Brantford, high sustained flows and persistent mild conditions would be required to degrade the ice sheet downstream of the City of Brantford to the point that it would release. The sheet ice downstream of the City of Brantford is typically very resistant to releasing. A caveat to the previous statement is that an ice sheet's resistance to movement is dependent on the strength of the ice and volume of the ice in the river. The strength and volume of ice in the river is dependent on the amount of cold weather during the portion of winter preceding the mid-winter melt. Following a mid-winter melt, frazil ice generation can be a concern and further complicate ice jams that form.

5.3 Spring Breakup Ice Jams

Spring break-up ice jams are similar to mid-winter melts. Ice sheet movement follows the same progress as described above. The severity of spring break-up jams can be much greater as the river flows will typically be higher and pre-existing ice jams may be in place. The severity of the spring break-up ice jams will depend on if there are existing ice jams in place, the strength and volume of ice in the river at the time of breakup, how rapid the melt occurs, and the magnitude of the resultant flows in the river. Typically, spring break-up ice jams have more potential to push ice blocks onto the floodplain and create more potential for damage.

As previously noted, it is not possible to forecast whether or not ice jams will occur or how severe the ice jam might be. It is possible to anticipate the potential for the risk ice jams but its not possible to accurately predict ice jams.

The Province of Ontario published the Provincial Ice Management Manual in 1984. This document provides an overview of ice management including conditions causing ice jams, break-up factors, and predictive techniques along with preventative and assessment measures. Some of the predictive techniques from this manual are used in the Grand River watershed and discussed in the next section of this document.

6.0 Monitoring or Awareness of Ice Jam Potential

Given that its not possible to forecast ice jams, monitoring and awareness are important components of ice jam management that are achievable. This section discusses approaches used to monitoring ice conditions and anticipate potential for ice jams.

6.1 Freezing Degree Day Monitoring and Freeze-up Ice Cover Forecasting

The key major factor influencing ice in the river is cold weather. Monitoring and analyzing air temperature is one of the approaches used to anticipate ice conditions in the river. Historically, only daily minimum and maximum air temperature data was available. There are many procedures focused on degree day approaches to anticipate ice conditions. Hourly air temperature is now available which has created the opportunity to update historical degree day approaches to cooling or warming degree hour approaches.

During the initial freeze-up when ice initially forms on the river, a freezing degree day calculation is used to anticipate ice cover formation. Daily maximum and minimum temperatures are added together. If the sum of the maximum and minimum daily temperature is negative, this constitutes a negative freezing degree day and is the starting point for the freezing degree day model. Subsequent sums of daily maximum and minimum daily temperatures are added to the previous

negative degree day sum. The accumulation of negative days continues until a threshold of negative 70 freezing degree days has accumulated. Based on previous observations, between -70 and -125 average negative degree days, ice sheet formation generally occurs.

A secondary calculation uses only the daily minimum temperature and cumulates the daily minimum temperature once it begins to go negative. This is referred to as absolute maximum freezing degree days. Once a threshold of -225 absolute maximum freezing degree days is reached, ice sheet formation can be anticipated.

An example of the West Montrose ice cover forecasting spreadsheet is illustrated in Table 3. This forecasting spreadsheet will be improved in the future by converting it to use hourly data, the ice sheet formation thresholds would have to be revised and updated based on hourly data. It is however important to keep in mind ice sheet formation forecasting is not an exact science, many factors affect the formation of the ice sheet. The spreadsheet forecast model is more meant to inform water managers when conditions are approaching or favourable for ice sheet formation to focus staff attention during that period.

Table 3 Example of West Montrose Ice Cover Forecasting Spreadsheet

ICE COVER FORECAST FOR WEST MONTROSE									
Date	Flow at West Montrose (cm)	SHAND Discharge (cm)	Maximum Daily Temp.	Minimum Daily Temp.	Average Negative Degree Days	**(-225 C.)** Absolute Maximum Negative Temp.	**(-70 to -125 C.)** Cumulative Negative Degree Day	Snow Forecast cm	Wind Forecast (km/hr)
Sun. Dec. 27, 2015	15.2	11.9	2	-2.5	-0.3	-2.5	-0.3	0	25 NW
Mon. Dec. 28, 2015	15.3	11.9	1	-9	-4.0	-11.5	-4.3	0	25 E
Tues. Dec. 29, 2015	16.5	11.9	0.5	-9	-4.3	-20.5	-8.5	5	35 SW
Wed. Dec. 30, 2015	24.8	20.2	5.5	-0.5	2.5	-21.0	-6.0	0	40 W
Thurs. Dec. 31, 2015	27.4	20.2	2	-1.5	0.3	-22.5	-5.8	0	35 W
Fri. Jan. 1, 2016	25.1	18.1	1	-4.5	-1.8	-27.0	-7.5	1	30 W
Sat. Jan. 2, 2016	23.6	20.8	-4	-6	-5.0	-33.0	-12.5	4	30 W
Sun. Jan. 3, 2016	22.5	20.6	-0.5	-4.5	-2.5	-37.5	-15.0	0	5 N
Mon. Jan. 4, 2016	7.0	4.1	-0.5	-18	-9.3	-55.5	-24.3	2	20 SW
Tues. Jan. 5, 2016	6.7	4.1	-12.5	-19	-15.8	-74.5	-40.0	0	20 SW
Wed. Jan 6, 2016	7.9	4.2	-4.5	-18	-11.3	-92.5	-51.3	0	20 SW
Thurs. Jan. 7, 2016	7.6	4.3	-0.5	-9	-4.8	-101.5	-56.0	0	6 S
Fri. Jan. 8, 2016	7.2	4.2	1.3	-3	-0.9	-104.5	-56.9	0	15 SE
Sat. Jan 9, 2016			3	-2	0.5	-106.5	-56.4	0	25 SW
Sun. Jan. 10, 2016			5	2	3.5	-104.5	-52.9	0	45 NW
Mon. Jan. 11, 2016			3	-1	1.0	-105.5	-51.9	1	35 W
Tues. Jan. 12, 2016			-8	-11	-9.5	-116.5	-61.4	4	30 SE
Wed. Jan. 13, 2016			-6	-13	-9.5	-129.5	-70.9	1	35 W
Thurs. Jan. 14, 2016			-8	-11	-9.5	-140.5	-80.4	1	25 W
Fri. Jan. 15, 2016			-5	-10	-7.5	-150.5	-87.9	0	35 W
Sat. Jan. 16, 2016									
Sun. Jan. 17, 2016									
Mon. Jan. 18, 2016									
Tues. Jan. 19, 2016									

ICE COVER FORECAST FOR WEST MONTROSE									
Date	Flow at West Montrose (cm)	SHAND Discharge (cm)	Maximum Daily Temp.	Minimum Daily Temp.	Average Negative Degree Days	**(-225 C.)** Absolute Maximum Negative Temp.	**(-70 to -125 C.)** Cumulative Negative Degree Day	Snow Forecast cm	Wind Forecast (km/hr)
Wed. Jan. 20, 2016									
Thurs. Jan. 21, 2016									
Fri. Jan. 22, 2016									
Sat. Jan. 23, 2016									
Sun. Jan. 24, 2016									

Start populating the sheet once the sum of the daily maximum temperature and an overnight temperature is less than or equal to zero.

Use daily temperatures and snow fall from Shand Dam daily reservoir report. Forecast daily maximum temperatures from the Weather Network Fergus location. http://www.theweathernetwork.com/ca/weather/ontario/fergus

This spreadsheet forecasts freeze-up/establishment of the ice sheet at West Montrose. Potential for frazil ice is affected by river flow, severity of cold conditions, snow and strong winds or winds following the alignment of the river. Snow with cold conditions can enhance frazil ice production. Wind and cold temperatures can enhance frazil ice production. The combination of cold conditions with snow and wind is one of the worst combinations and will enhance frazil ice production and potential for frazil ice jams. A warm spell may require the accumulated negative degree days to be reset, that's a judgement call.

Information from this spreadsheet in combination for the history of freeze in ice jams at West Montrose can be used to identify potential flow and weather conditions that could cause a freeze in ice jam. Monitor flow and levels conditions at the West Montrose Gauge Station to maintain awareness of ice conditions. Use the camera at the West Montrose gauge station to monitor ice conditions Ask River Watch staff to visit the site to assess and report on ice sheet formation as needed.

Many factors can affect ice sheet formation, including wind, snow, flow, and the presence of frazil ice. Frazil ice can complicate freeze-up and initial ice sheet formation. If conditions are extremely cold and windy at the time of freeze-up, frazil ice can be anticipated. The amount of frazil that is produced by the river will be influenced and amplified by the amount of flow in the river, extreme cold freezing air, wind, and snow. Increased flow increases the number and length of turbulent flow reaches/areas in the river, extreme cold and wind increases supercooling of the water surface, and snow falling on the river creates slush. All these factors conspire to affect frazil ice creation and the potential for frazil ice jams. The freezing degree day accumulation model/spreadsheet is also used to anticipate frazil ice conditions and the potential for frazil ice jams during the initial freeze-up period.

River flow gauges are used to monitor river level and flow. When the ice sheet forms, it backs up river levels causing them to rise. Monitoring gauge levels can inform water managers if the ice sheet has formed through the gauge reach. River cameras have been added at West Montrose and Brantford gauge stations. River camera photos and video can be used to monitor ice sheet formation. Field staff can be requested as needed to visit specific sites to monitor conditions during the initial freeze-up of the ice sheet. Reservoir discharges can be reduced in some reaches to aid in the initial smooth formation of the ice sheet. The reach downstream of Shand Dam through West Montrose is an example of a reach where reservoir discharge can be adjusted in some situations to assist with ice sheet formation, reducing the potential for freeze-up ice jams.

6.2 Winter Freezing Degree Day Accumulation Monitoring

Another technique used to monitor the potential for ice accumulation and potential for the creation of strong ice is the accumulation of freezing degree days over the course of the winter.

Freezing degree day accumulation over the course of the winter is a measure of how cold the winter has been. If the winter has been extremely cold there is more potential to create ice, potentially creating a larger volume of ice in the river system. However, it is only one indicator and other factors can affect the volume and strength of ice that develops in a given winter.

The degree day accumulation is started on December 1st and continues until April 30th, although ice typically breaks up in March and by mid April at the latest. The average of the maximum and minimum daily temperature is accumulated starting December 1st and continuing through the winter as the winter progress. The Shand Dam climate station is used as an indicator for the watershed. Daily climate records are available from Shand Dam dating back to 1939.

A chart of the annual maximum cumulative freezing degree day for the period 1940 to 2024 is presented by Figure 8. The years with damaging ice jams are also shown on the chart in Figure 8 to illustrate that the coldest winters don’t necessarily result in damaging ice jams. Whether ice jams occur is very dependent on how the spring break-up occurs. If the spring break-up is gradual, there is time for ice to dissipate and move out of the river system without incident.

The winter of 2014 is a good example of a long cold winter however the spring breakup was gradual and no major ice jams occurred. A large number of cumulative freezing degree days can also indicate a long persistent winter as was the case in 2014, spring breakup didn’t occur until mid April.

A chart of annual cumulative freezing degree days to March 12th is presented by Figure 9, it illustrates how this technique can be used to quickly put in context the history of cumulative freezing degree days for a given date during the winter. If for example a melt event was expected for March 12th, this technique can quickly present the history of cumulative freezing degree days for the period of record to March 12th each year. This context can assist with putting any given winter into context with previous winters. The moving five-year average trend line presented on the chart in Figure 9 indicates a trend to warmer winters. While there is a trend to warmer winters, natural variability can still result in very cold winters like 2014 and 2015 amid a period of warmer winters.

Figure 6: Maximum Annual Freezing Degree Day Chart Shand Dam 1940 to 2024

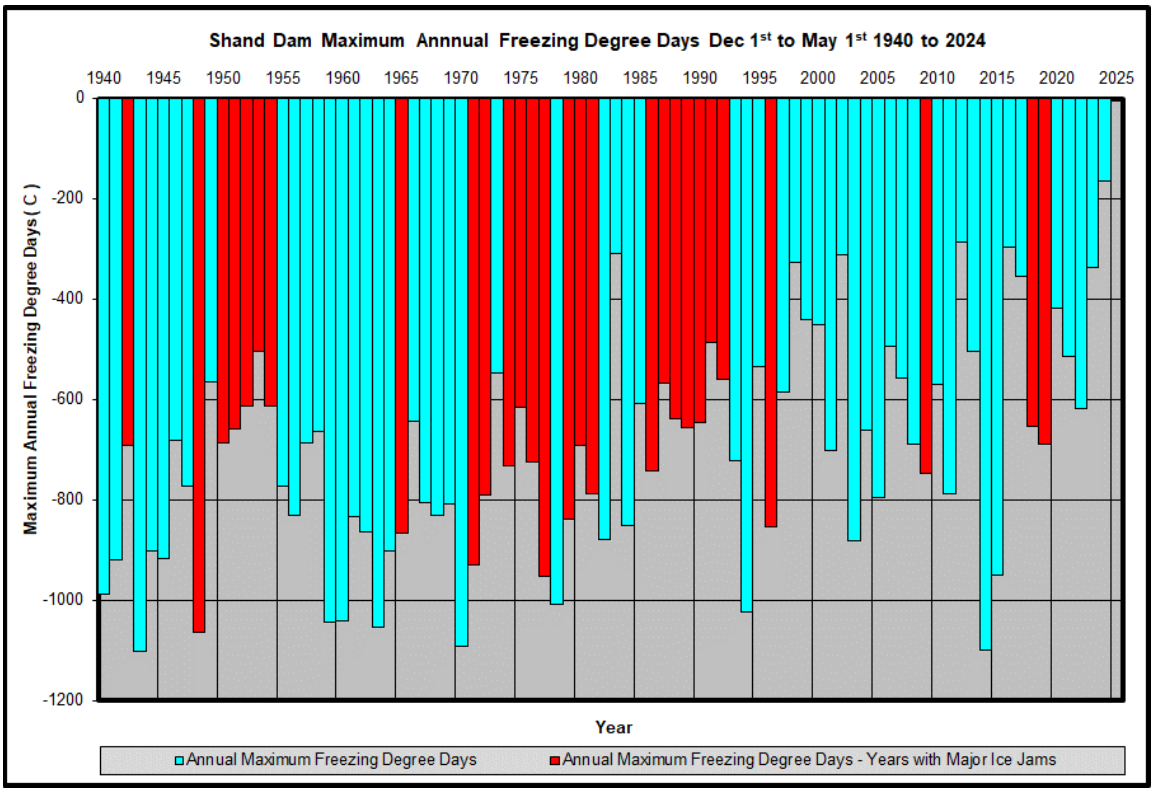
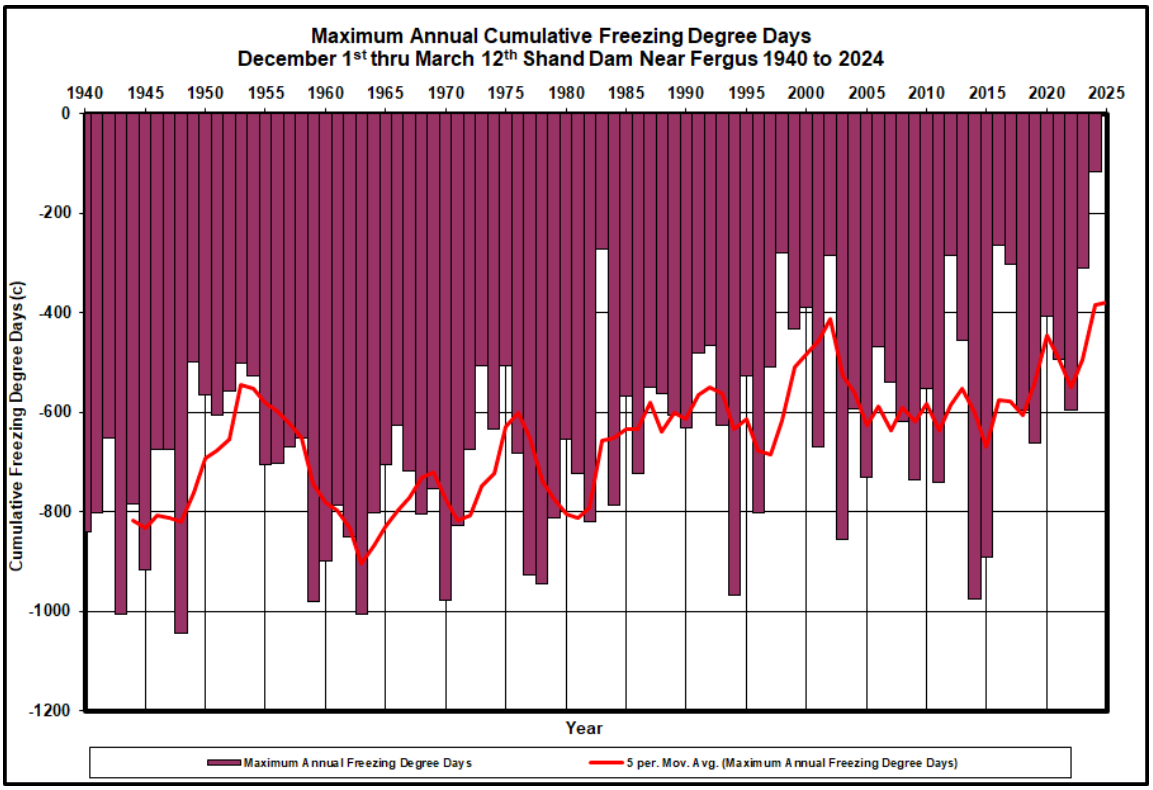
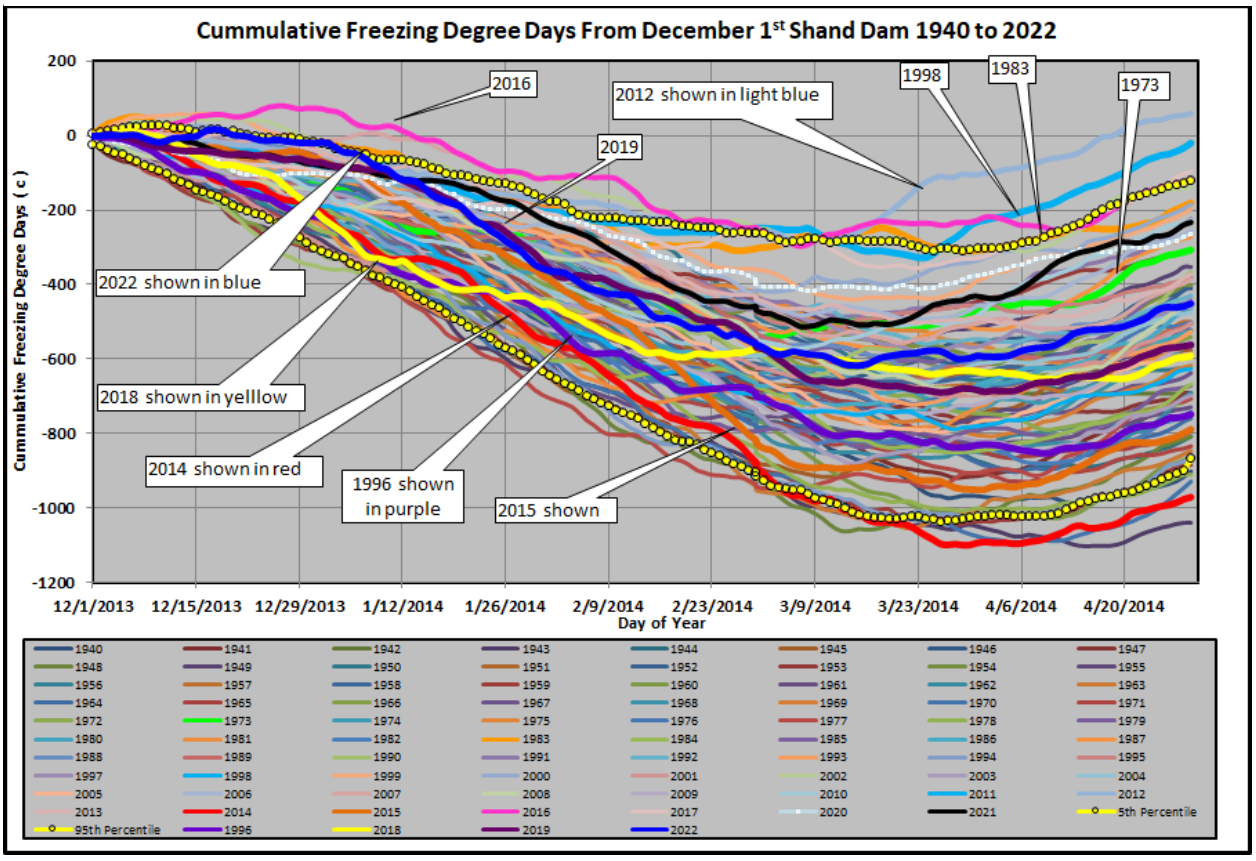


Figure 7: Annual Freezing Degree Day Chart Shand Dam for March 12th 1940 to 2024



One final way to use cumulative freezing degree days for various winters to evaluate the potential for ice jams is to present cumulative freezing degree days, day by day starting from December 1st for all years in the period of record and highlight specific years. The chart presented by Figure 10 illustrates daily cumulative freezing degree days for Shand Dam from December 1st for each year for the period 1940 to 2022. Specific years are highlighted in the record for reference; some of the referenced years had major ice jams. The advantage of Figure 10 is that it illustrates the variability in the accumulation of freezing degree days in one chart. It illustrates how persistently cold some winters were and how rapid the freezing degree day accumulation occurs some winters, the 2018 winter highlighted in yellow is a good example. The rapid accumulation of freezing degree days during that winter built strong blue ice, the amount of ice and strength of ice in the 2018 winter resulted in major ice jams. The chart presented in Figure 10 allows for quick comparison of a current winter accumulated freezing degree days to the previous history of winters providing context when assessing potential for severe ice jams.

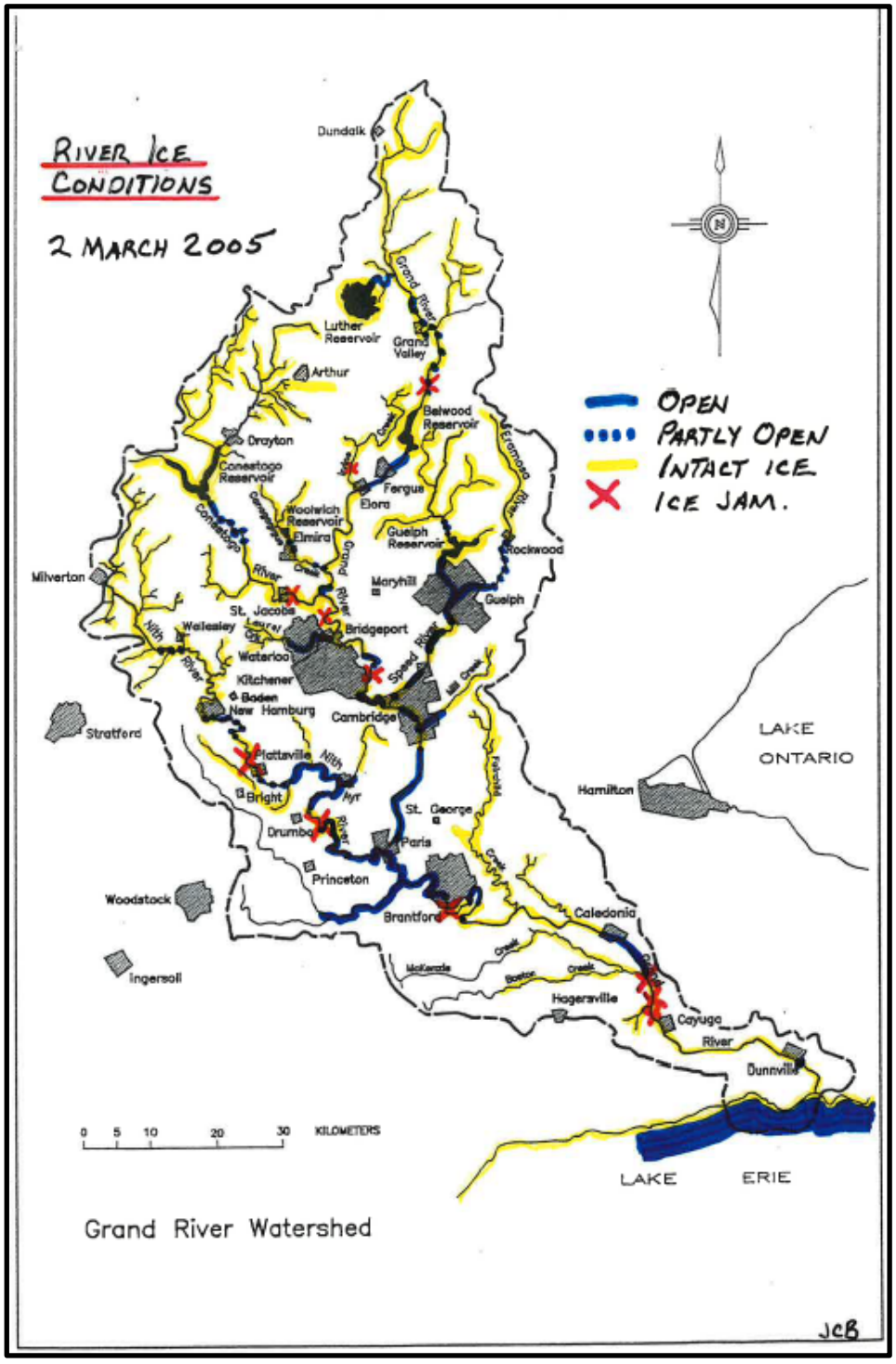
Figure 8: Cumulative Freezing Degree Days by Day of Year Shand Dam 1940 to 2022



6.3 River Watch Ice Condition Maps

Another component of ice monitoring is the River Watch program. Field staff from GRCA Conservation Areas are assigned to specific reaches of river. They provide eyes in the field to monitor floods including ice jams events. These field staff are called upon to complete reconnaissance and report on conditions prior to spring break-up or incoming flood events. These field observations provide valuable information that provides a picture of conditions prior to spring breakup. One of the products produced from their field observations is an ice conditions map of the watershed. Field staff report on the presence or absence of ice, and general observations about the quality of the ice along with location where ice jams are present. The field reports from individual staff are summarized onto one map of the watershed to provide a watershed summary of ice conditions. Figures 11 and 12 provide examples of these maps, originally these maps were hand drawn, in recent years digital maps have been produced.

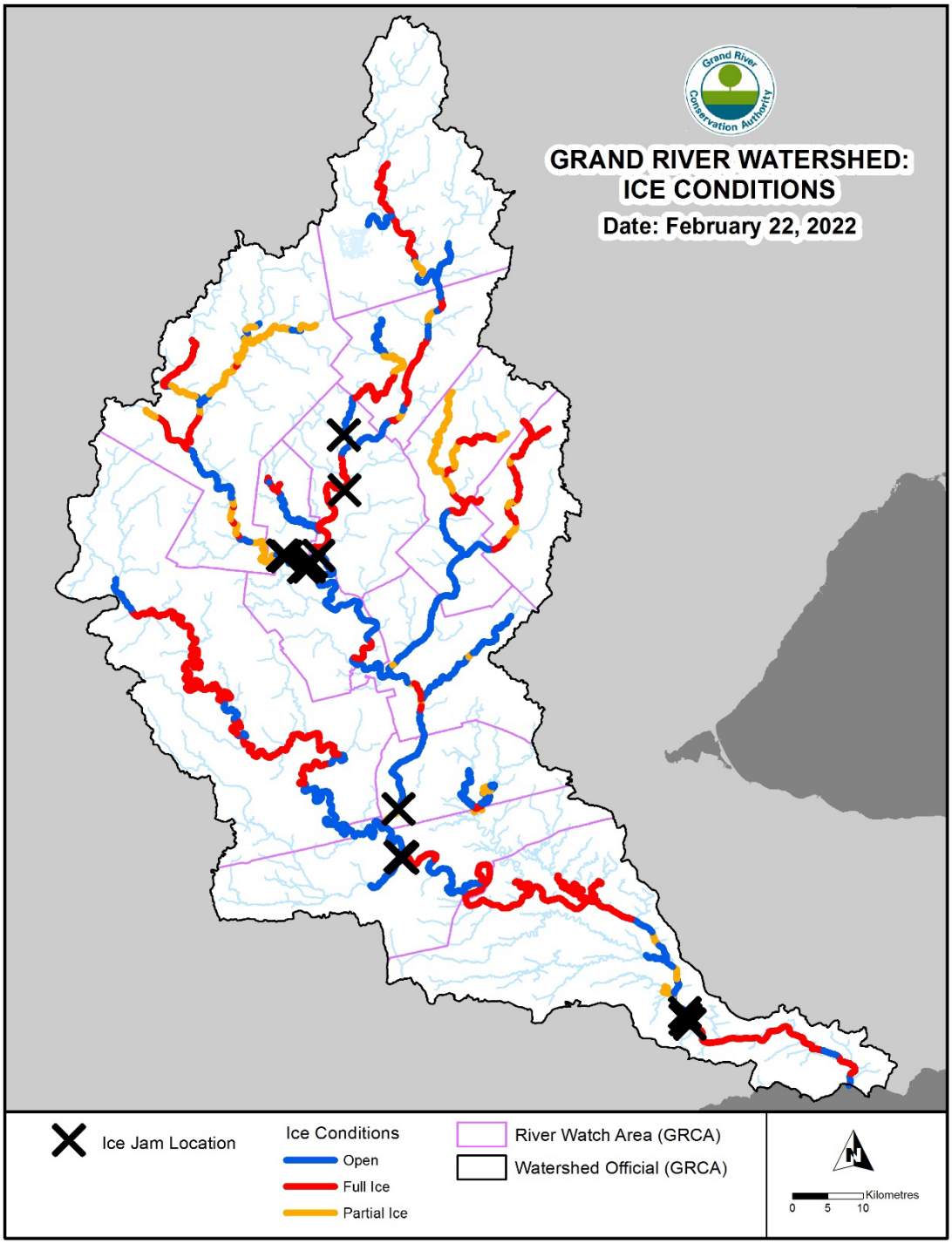
Figure 9: Example of Hand Drawn Ice Conditions Map March 2nd 2005



The digital maps provide the same content as the hand-drawn map but in a digital format. Having this information organized in a digital format, keeps it well-organized, accessible, and presents the opportunity to complete further analysis and prepare additional digital products. A

history of ice conditions maps is available from 1997 forward; this history of maps is included in Appendix A of this report.

Figure 10: Example of Digital Ice Conditions Map February 22nd 2022



The history of ice jam locations captured in the ice conditions maps is very valuable. It captures knowledge of recurring ice jam locations digitally so that the information won't be lost and can be used to create useful maps for GRCA staff and municipal partners. Ice jam-prone areas can be identified and information captured in an overall summary map so that as staff change, knowledge continues to be passed on.

6.4 Remotely-Piloted Aerial Systems Surveillance of Ice Conditions

In recent years, many municipal emergency management and police departments have acquired aerial Remotely-Piloted Aircraft Systems (RAPS, otherwise known as drones). RAPS devices can be very effective at providing an aerial view of river ice and ice jams. The following photo is an aerial photograph from social media on January 29, 2018 following the ice jam event that month. The picture presented by Figure 13 is of the Grand River in the vicinity of the Colborne Street bridge in the City of Brantford.

RAPS surveillance offers the opportunity to gather good records regarding ice conditions and ice jams in a safe manner. Working around ice can be dangerous and remote observations with RAPS reduces the health and safety issues of getting close to and working around ice.

Some devices are capable of delivering thermal imagery which can provide insights to the strength and thickness of ice and how ice may be degrading as a result of water erosion.

Working with municipal emergency management staff, critical ice reaches, and typical ice jam locations can be identified to focus reconnaissance efforts leading up to and during ice jam events. The reconnaissance information collected by RAPS supports better long-term understanding of ice and ice jams and provided critical status reporting during ice jam events.

Figure 11: RAPS Photo Example Ice in Grand River Colborne Street Bridge

7.0 Weather Forecasting Tools and Information

Weather forecast information is critical to flood forecasting, dam safety, and ice management. Weather forecast information allows for the early awareness of potential weather systems that could result in floods, dam or dike safety issues, and potential for ice jams and ice movement.

Beyond the publicly available forecast information, the GRCA also subscribed to two additional weather forecasting services from Meteoblue and Kisters.

The Meteoblue weather forecasting service provides hourly forecasts seven days into the future. Weather forecast parameters include air temperature, precipitation of both snow and rain, wind speed, and wind direction. The Meteoblue service provides forecasts from an ensemble of sixteen weather forecast models. Hourly digital forecast data is provided for three locations in the Grand River Watershed, including the Town of Grand Valley, City of Cambridge, and City of Branford. Updated hourly forecasts are provided every 6 hours throughout the day. Digital forecasts for the three locations noted is the most probable forecast based on analysis of the ensemble of forecasts model. The hourly forecast data from Meteoblue provide weather forecast inputs for the GRCA's flood forecasting model and ice management awareness techniques as discussed later in this report.

The second forecasting service used by the GRCA is the Kisters HydroMaster weather forecasting application. The HydroMaster weather forecasting application provide digital spatial precipitation both forecast and observed. It can provide near term nowcast projected weather radar information 3 hours into the future and weather forecast 7 days into the future. The HydroMaster product provides a range of flexibility to report precipitation forecast and accumulation based on spatial boundaries such as watersheds, areas upstream of reservoirs, and urban catchment. It is an advance weather forecasting environment with alarm notification and complex analysis capabilities. It does not currently include forecast air temperature information.

The combination of HydroMaster and Meteoblue provide the combination of forecast weather information to support GRCA operational needs for flood forecasting, dam safety, and ice management. Forecast weather information support weather assessment tools used to anticipate ice jam or ice management concerns.

7.1 Weather Forecast Assessments

Near-term weather assessments with respect to ice focus on three main considerations including ice sheet formation during initial freeze-up, frazil ice generation, and ice sheet break-up or movement.

Ice sheet formation was previously discussed in this section and the example of the ice cover forecasting spreadsheet is present by Table 3. Currently the ice cover forecasting spreadsheet uses daily information, a future improvement would be to adapt the forecasting spreadsheet to use hourly information and consider creating forecasting spreadsheets for Grand Valley, West Montrose and Brantford. This would be anticipated ice sheet formation over a broader area of the watershed. Formation of the ice sheet through the West Montrose reach is over primary interest which why it has been the focus to this date.

Weather assessments ensure an awareness of frazil ice conditions throughout the winter season. Frazil ice can complicate existing ice jams that may be in place or cause new ice jams to form, therefore maintaining a level of awareness throughout the winter season is important. Double digit below freezing temperatures coupled with windy conditions and turbulent flow conditions are the main concern for frazil ice generation. Given the right conditions, the river has an almost limitless ability to generate frazil ice.

The third weather assessment considered through the winter season are weather conditions that could cause ice sheet movement. This includes mid-winter melts or spring break-up. Ice sheet movement is an important consideration for ice jam risk potential. If ice sheets start to move, the potential risk for ice jams is increased. Assessing potential for ice sheet movement includes assessing both the forecast air temperatures that will influence snowmelt and associated snowmelt runoff and rainfall that influence snowmelt and runoff. The issue to be assessed is if a forecast event will generate enough runoff to trigger ice sheet movement. A warming degree hour technique is used and is discussed in the next section.

7.2 Warming Degree Hour Technique Used to make inferences of Ice Sheet Movement

The provincial ice management manual includes information about degree day thresholds to estimate ice breakup. Historically degree day techniques were used since maximum and minimum daily air temperatures were readily available and hourly air temperature data was rarely available. Hourly air temperature data is now readily available. Cumulating the observed and forecast hourly air temperatures provides a better representation of the energy associated with an event and whether there is sufficient energy and rainfall in an event to trigger ice sheet movement or breakup.

An approximate threshold for ice sheet movement has been developed for the Grand River based on analyzing historical events. The general threshold used in the Grand River watershed is 160 warming degree hours over a 1 to 2 day period of time. If this threshold is expected to be exceeded or met, it indicates the incoming event is a weather event that needs to be monitored closely as it could cause bank full flow conditions which could initiate the movement of ice. The more the threshold is exceeded, the more extreme the melt event. More energy results in more melt and a more rapid melt. The magnitude of the melt is also influenced by the amount of water stored in the snow pack and the amount of rain associated with an incoming weather event.

Figure 12: Warming Degree Hour Chart Example February 18th 2018 Weather Forecast

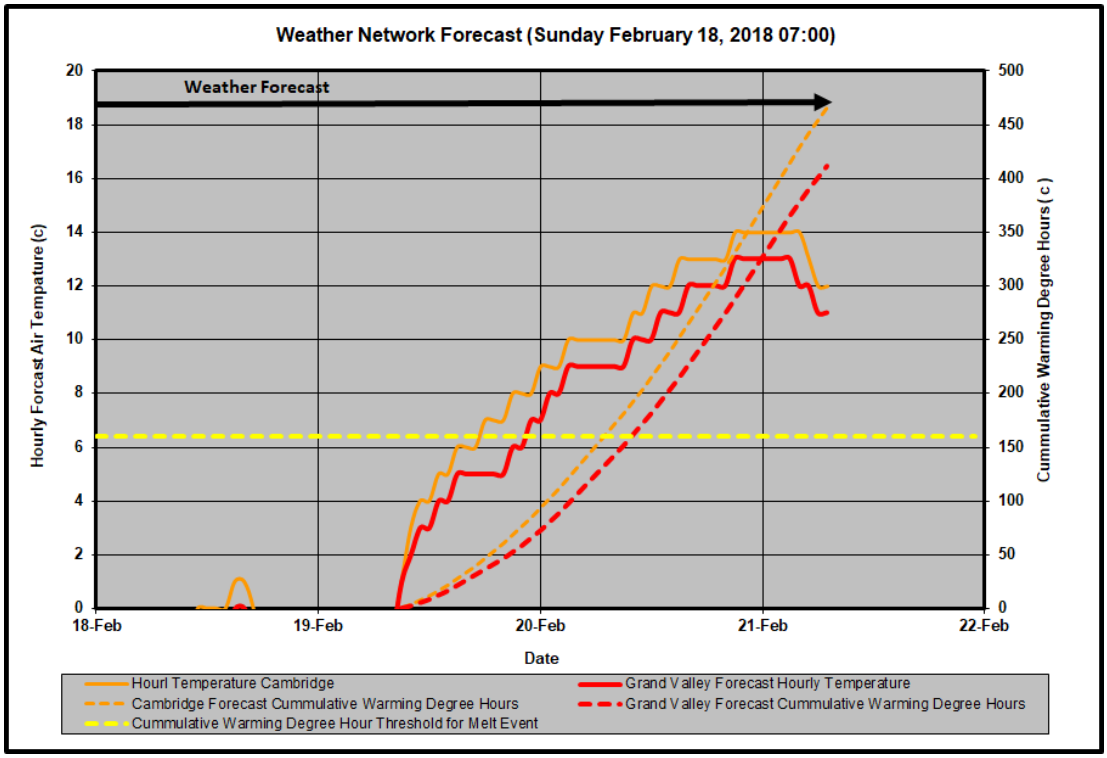


Figure 14 presents an example of a warming degree hour cumulative chart from a February 18th 2018 event that relied on the Weather Network forecast hourly temperature information. The cumulative warming degree hour technique can anticipate when ice sheet move might occur several days ahead based on the weather forecast. In the example provided by Figure 14, ice movement was anticipated two and a half days prior. While ice movement can be anticipated when ice jams might form and break-up is not possible to forecast.

River Cameras

Use of remote digital cameras has become more common in recent years as camera and high-speed cellular communications technology have evolved. Two digital cameras are installed and are used to monitor river ice conditions by the GRCA at the West Montrose and Brantford stream gauge sites. These cameras were installed in 2014 prior to the spring break-up in 2014 which had the potential to be a flood of record.

The West Montrose and Brantford sites were selected as these sites have a history of ice jams and ice jams pose a risk to residents at these locations. While these cameras can be used to monitor river conditions, their primary purpose and reason for installation was to enhance ice monitoring. Figure 15 illustrates pictures capture at each of these sites in January 2024.

Figure: 13a and 15b: (15 a above) River Camera Photos West Montrose and 15b (below) Brantford River Cameras

Photos from river cameras are available in real-time on the GRCA website and are updated on a five-minute basis. Information from the cameras provides real time status updating of ice conditions complimenting information from the river flow and level gauges. Information from the cameras is stored and can assist the post-analysis of ice conditions throughout the winter season including during periods of ice formation, break-up, and jamming.

7.3 Stream Gauges (Voice Alert System)

Stream gauges monitor in-river observed conditions of water levels and open water flows. If ice is present at a stream gauge, flow estimates aren't available as the relationship between gauge level and stream flow is based on open water conditions. The presence of ice backs up water and invalidates the relationship between gauge level and gauge flow.

Regardless, if flow information is unavailable from a stream gauge due to ice conditions, river level at stream gauges is still very useful to monitor ice and ice jam conditions. Not all communities that are subject to the risk of ice jam flooding have stream gauges, however many do. Stream gauges are located in the following communities that are at risk from ice jams: Port Maitland, Dunnville, Brantford, Cambridge, Doon/Freeport, Bridgeport, West Montrose, Drayton, St. Jacobs, and New Hamburg. These stream gauges help monitor the status of ice conditions in these communities. Recently, the County of Brant has added river gauge monitoring stations in the community of Paris.

Stream gauges can assist with status reporting of ice jam conditions and detection of unexpected ice jams. Ice jams at times are unpredictable, and stream gauges can alert water management staff to unexpected ices jams. The GRCA monitoring system monitors selected river level gauges for potential ice jams. The river level rate of rise is monitored to detect a potential ice jam condition. If potential ice jam conditions is detected by the monitoring system, a voice alert message and email is sent to the duty office on call. Upon receipt of the potential ice jam condition, the duty officer reviews the stream gauge information, discusses the information with the senior operator, and the senior operator decides on the appropriate action which may include contacting the municipal flood coordinator and issuance of a flood warning message.

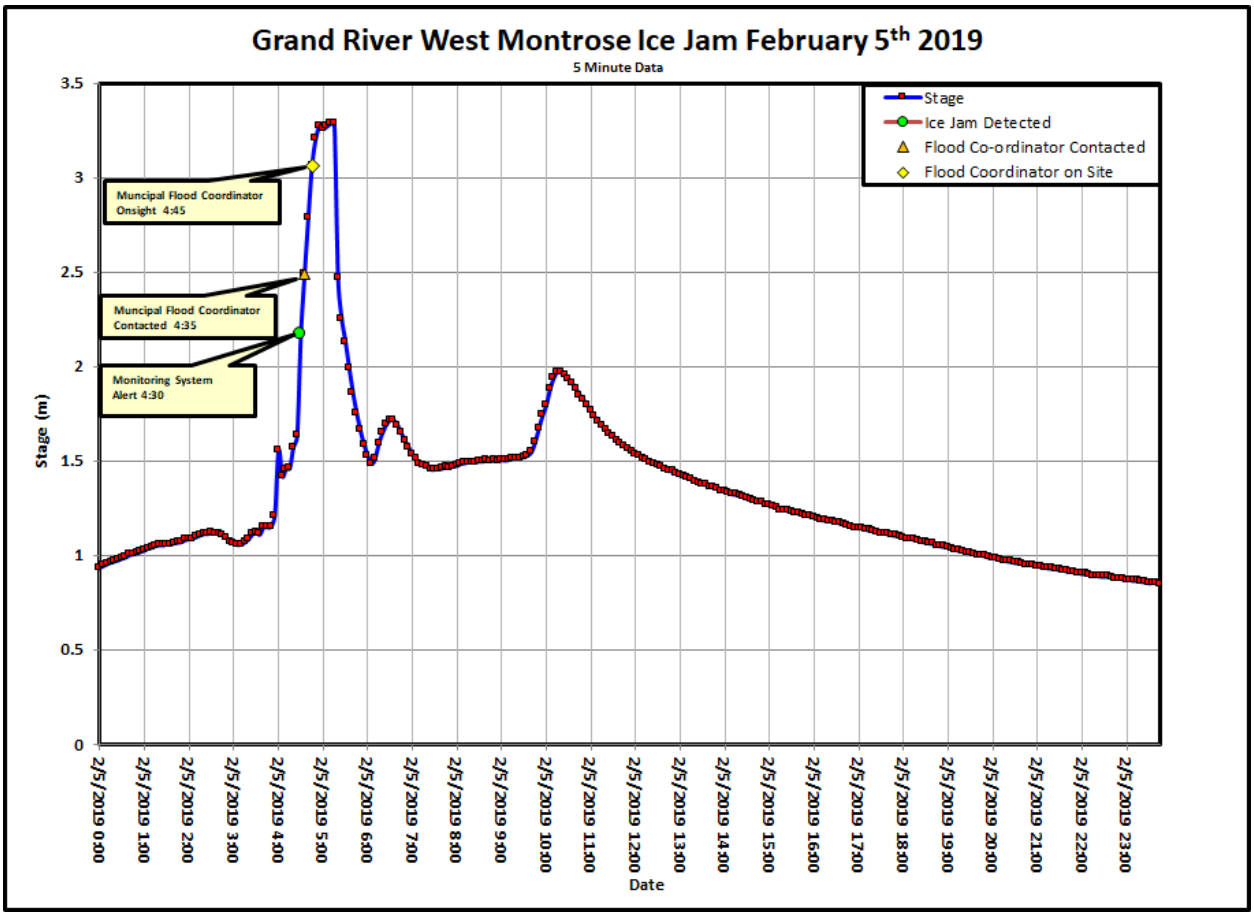
Figure 16 illustrates an example of the real-time monitoring system detecting an unexpected ice jam at the West Montrose gauge station and alerting staff. The monitoring system detected the ice jam initial river rise at 4:30 am, the duty officer received the call, and the municipal flood coordinate was contacted at 4:35 am, the municipal flood coordinator arrived at the site by 4:45 am. The example illustrated by Figure 16 is an example of an ideal response, not all responses can happen with that sort of efficiency. A watershed conditions statement was issued the prior afternoon advising flood coordinators in specific communities of a heightened risk of ice jams. The detection of the ice jam by the monitoring system coupled with the public awareness through the watershed conditions statement demonstrated an efficient and timely response.

Figure 16 illustrated how quickly an ice jam can form, rise, and release. The ice jam in West Montrose on February 5th of 2019 started to rise at 3:55 am, it peaked at 4:55 am and receded back down to normal levels by 6:05 am. The ice jam lasted a total of 2 hours in this example. Ice jams don’t always release so quickly, if the downstream ice is strong and resistant to movement, ice jams can last for hours, days, or weeks depending on conditions.

A similar monitoring detection system is in place for ice jams in the City of Brantford. River levels are monitored downstream of the Colborne Street Bridge through the Brantford dike reach. In the case of the City of Brantford, both the GRCA and the City of Brantford operate monitoring systems that monitor the river level and issue alerts to staff when ice jams are detected. This system was put in place following the February 1996 ice jam in the City of Brantford.

River level gauges can be used to track the progression of an ice jam down a river system. Examples are provided in the next section.

Figure 14: Example of West Montrose Ice Jam and Monitoring System Detection



7.4 Ice Flow and Ice Jave Monitoring and Forecasting

As ice jams or the wave associated with ice jams, javes, move down the river, stream gauges can be used to track the status of movement and estimate/forecast the arrival times at downstream locations. There are several gauge stations along the large rivers in the Grand River watershed that can be used to monitor the movement of a jave down the river. However, the arrival times of the jave at downstream locations have an associated uncertainty.

While the travel time between gauge stations is known based on analysis of previous floods, what is uncertain is whether the ice jams at a location may stop or interrupt the downstream progression of the jave. If an ice jam occurs, the downstream progression of ice and potentially flood waters are halted, and an ice dam can form forcing ice and water on the floodplain adjacent to the river. The accumulation of water and ice can result in a much higher and larger jave when the ice jam releases.

During the February 2018 ice jam event, an ice dam formed at a pre-existing ice jam upstream of the Parkhill Dam. When the ice dam broke, it sent a large jave of ice, water, and debris (tree length logs in some cases) down the river. Reviewing the gauge levels from the 2018 event, the

ice dam was difficult to anticipate or discern from the existing gauge network. The combination of the high flows in the river, with the added flow of ice and debris from the jave, and a pre-existing ice jam in place downstream of the Brantford dike reach, all conspired with the rapid melt to result in overtopping of the Brantford dikes.

The breakup in 2019 also resulted in an ice wave moving down the river however it was not as severe as the 2018 ice jam. The ice jave progressed down the river downstream with little interruption and the expected arrival times could be forecast using typical travel times between gauge stations. Figures 17 and 18 illustrate the flood wave and jave travel down the river system.

Figure 17 Ice Jam Jave Grand River February 2018

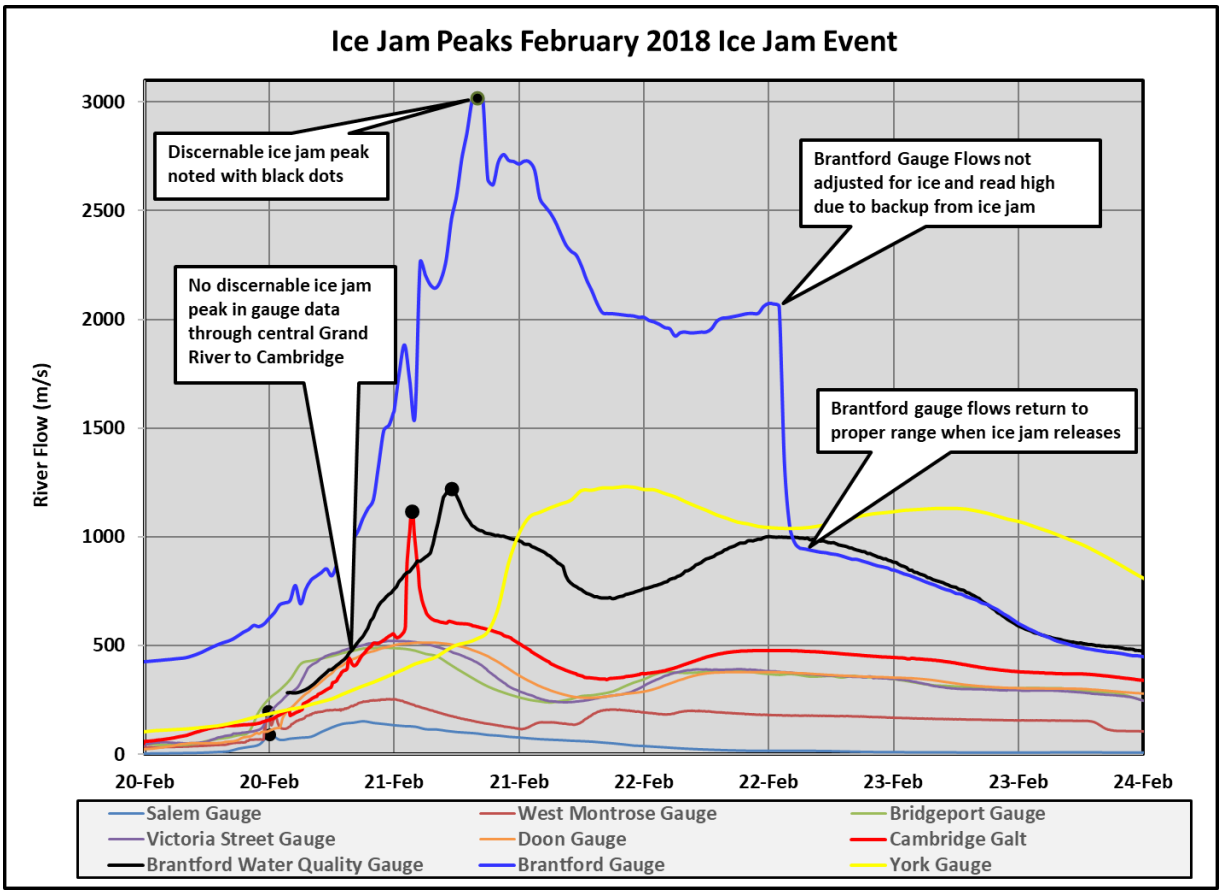
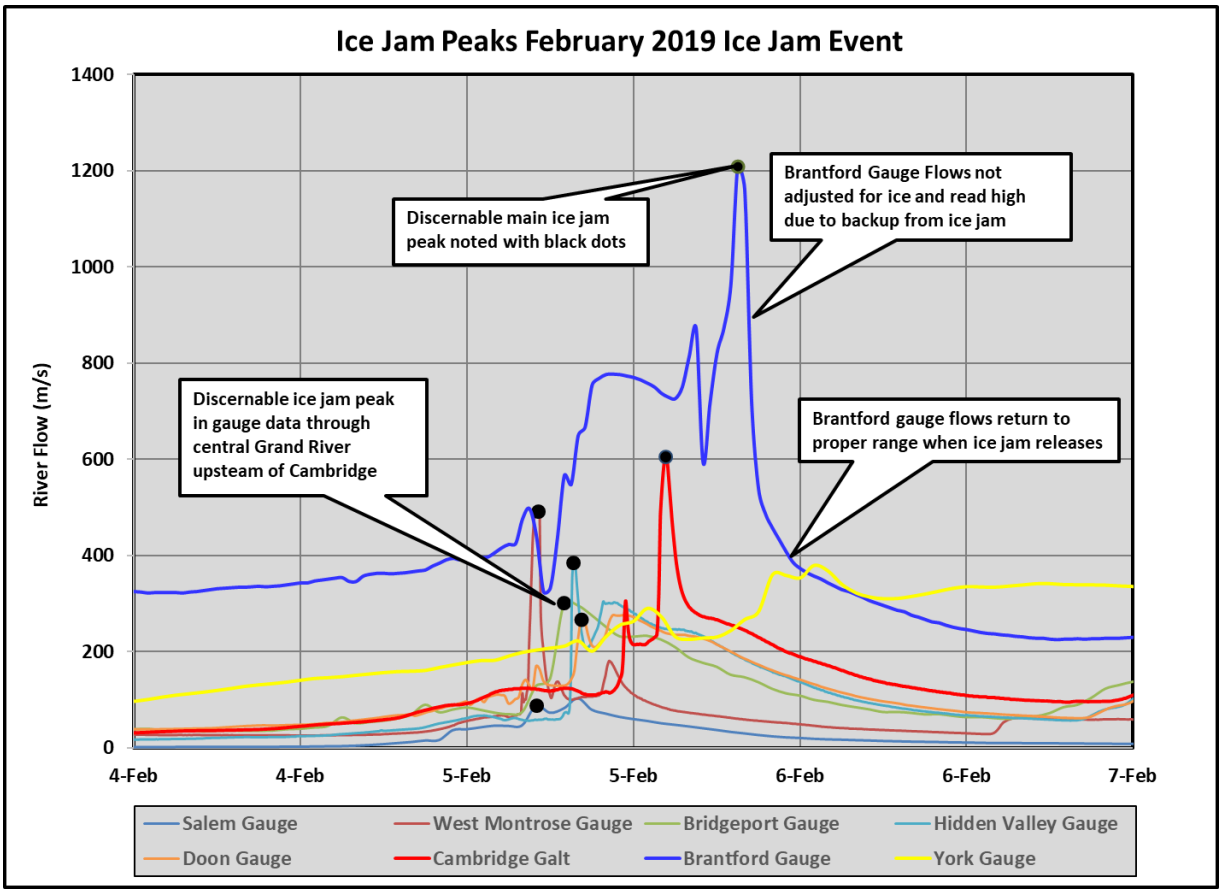


Figure 18: Ice Jam Jave Grand River February 2019



7.5 Ice out thresholds for Dams

Predicting when ice will breakup and the ice sheet above the low-head dams on the river will break-up and move downstream is difficult to predict. When the ice sheet will break up above a low-head dam is very dependent upon the strength of the ice sheet. The strength of the ice sheet varies depending on the length of the winter, the persistence of cold conditions to build strong ice during the winter, the presence of snow on the ice sheet to insulate it, and how rapidly the break-up occurs.

7.6 Ice Thickness Monitoring

Limited ice thickness information is available or collected. Working on ice poses health and safety risks to employees, for this reason ice thickness information is not actively collected.

There are some ice thickness measurements from GRCA reservoirs that permit ice fishing activities, this sort of ice thickness information is more collected for ice safety of patrons and not for ice management purposes.

There is periodic ice thickness information available from Water Survey of Canada stream gauge stations. When technicians visit the stream gauge stations to complete under ice flow

measurements, they will note the ice thickness. This information is sporadic and has not been formally analyzed.

8.0 Ice Jam Risk Mitigation

There have been some historical projects focused specifically on reducing the potential for ice jams and other projects or activities that have helped reduced the risk of ice jams although that was not their primary objective.

8.1 Removal of Sediment Downstream of Grand Valley Boyne Creek Delta

In 1982, the GRCA completed a project to remove a delta of sediment that formed in the Grand River at the confluence of Boyne Creek and the Grand River downstream of Grand Valley. The delta of sediment was removed to improve ice passage downstream of the community of Grand Valley. Ice jam flooding was a persistent flooding issue in the community of Grand Valley through the late 1970s and early 1980s. Ice jams form downstream of Grand Valley in the vicinity of the Byone Creek confluence and cause a backup of the ice jam into Grand Valley resulting in flooding in the community.

It doesn't appear this project was a formally adopted project of the GRCA and appears to have been completed as a special one-time project.

8.1.1 West Montrose Island Removal

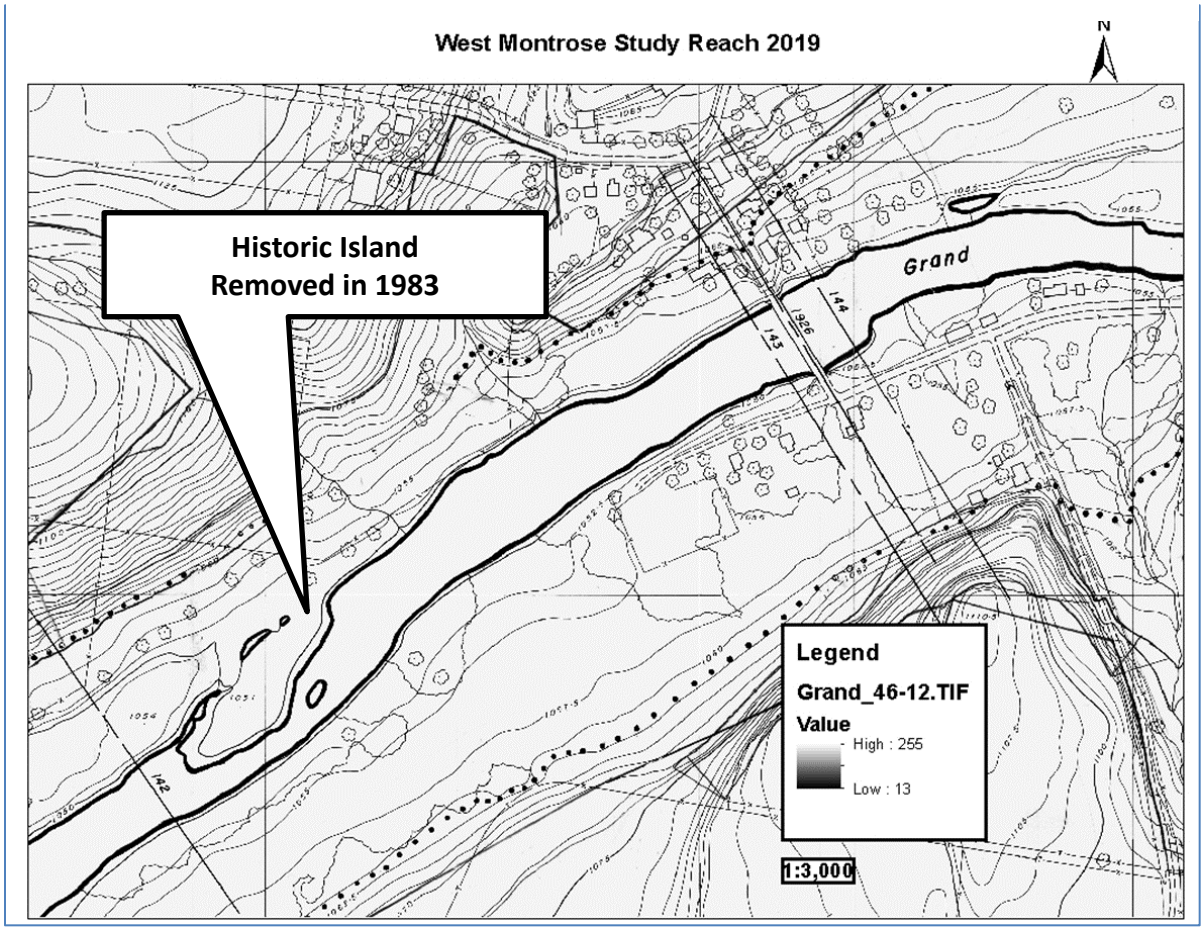
In 1983, the GRCA completed a project downstream of West Montrose to remove an island that occupied two-thirds of the river width downstream of the West Montrose Bridge. Removal of the island was intended to improve ice passage and reduce the risk of ice jam flooding through the community of West Montrose. Ice jam flooding had been a persistent problem through West Montrose in the late 1970s culminating with a major ice jam on February 22nd 1981. The 1981 ice jam is the highest on record. Following the 1981 ice jam, investigations were completed to assess alternatives to reduce the risk of ice jam flooding in West Montrose. A project was carried out in 1983 to remove the island in the river downstream of West Montrose. It does not appear this was a formally adopted GRCA project and appears to have been completed as a special one-time project.

8.1.2 Channelization Through Community of Drayton

Channelization and diking of the Conestogo River through the community of Drayton was completed in the late 1980s. The combination of increased channel capacity and diking reduced the potential flooding from natural flow events and reduced the risk of ice jam related flooding. The channelization improved the movement of ice through this reach of river.

The over banks of the channel through Drayton above the low water level were cleared of vegetation and accumulated sediment in 2016. This work was completed to restore some of the channel capacity lost over the years due to sedimentation and vegetation growth.

Figure 19: Island Downstream of West Montrose Removed to Reduce Ice Jam Risk



8.1.3 Diking Grand River Kitchener-Bridgeport

A dike was completed in the late 1970's to reduce the risk of flooding to the community of Kitchener-Bridgeport. Completion of this dike also reduced the risk of ice jam-related flooding in this community.

8.1.4 Channelization and Diking Cambridge-Galt (late 1970s and early 1980s)

Channelization and diking was completed through the Cambridge-Galt reach of the Grand River through the late 1970s through to the mid-1990s. This work was designed to reduce flood risk through this reach. The increased channel capacity improved ice movement which, in combination with diking, reduced the potential of ice jam flooding through this reach. It is important to also recognize the benefits of Parkhill dam to force break-up of the ice sheet as it falls over the dam resulting in smaller ice blocks that more easily move through the downstream flood channel. The area upstream of Parkhill Dam can provide as storage area for ice however, as seen in February 2018, it can also be the site for ice jams and ice dams to form.

8.1.5 Channelization and Diking City of Brantford (1980s)

Channelization and diking was completed through the Brantford reach of the Grand River through the late 1970s through to the mid-1990s. This also included the removal of Lorne dam. This work was designed to reduce flood risk through this reach. The increased channel capacity improved ice movement which, in combination with diking, reduced the potential of ice jam flooding.

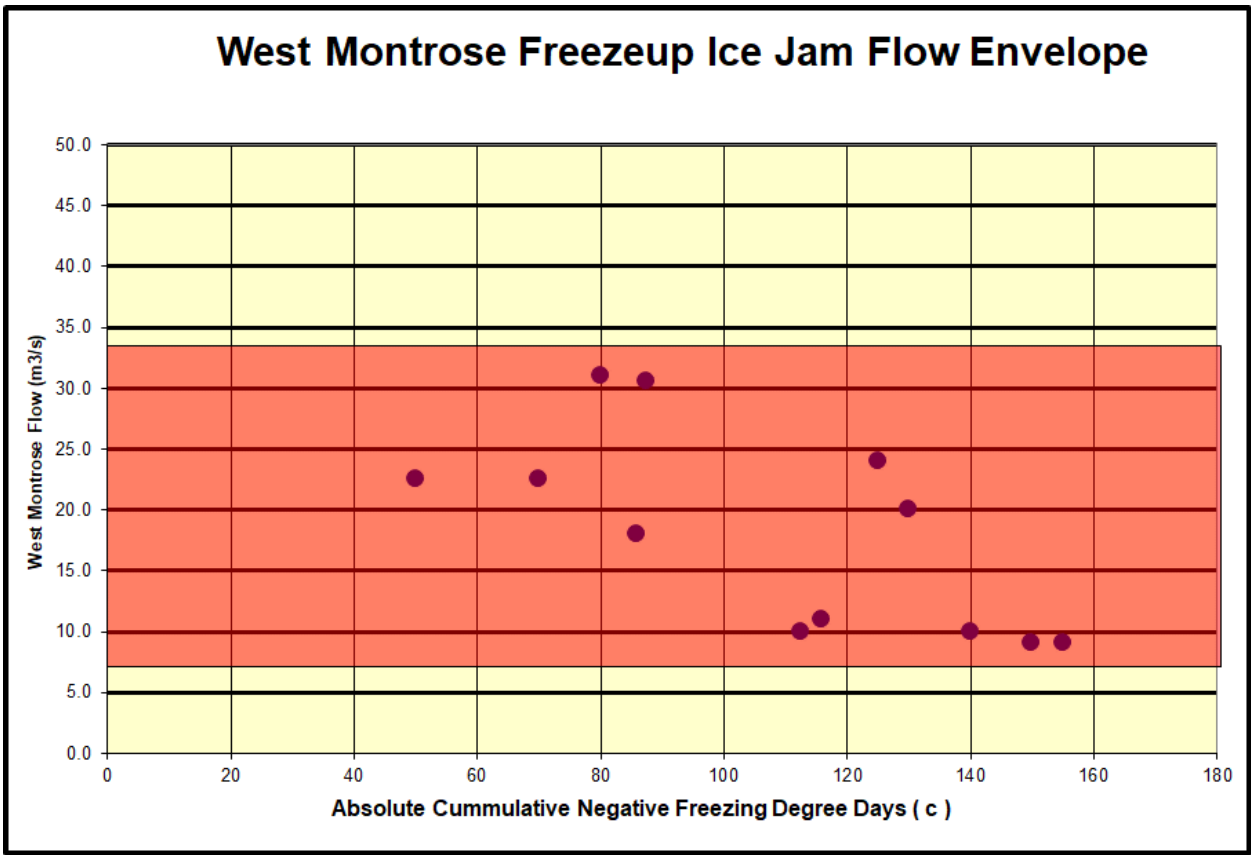
However, the Grand River is prone to ice jams forming at the downstream end of the dike reach due to strong sheet ice through the oxbow and at Fish Island downstream of the main dike reach. Overtopping of the Brantford dikes occurred in February 2018 as a result of an ice jam in the vicinity of Fish Island, a sudden melt, and the release of an ice dam upstream of the Parkhill Dam through the Cambridge reach of the Grand River.

8.2 Reservoir Operations

Reservoir operations can assist with reducing the risk of ice jams to some extent but aren't able to prevent ice jams from occurring.

Shand Dam can be used to influence ice sheet formation through the West Montrose reach of the Grand River. Flows from Shand dam can be adjusted to either facilitate a smooth ice formation at a low flow through the West Montrose reach or operated to flush frazil ice through the reach if river flows are high. Analysis of previous freeze up ice jams was analyzed for the West Montrose reach and compared to river flow through the reach at the time of ice sheet formation. The results of the analysis are presented in Figure 20. If flows at the time of ice sheet formation can be regulated to 7 m^3/s or less, there is reduced potential for frazil ice jams at the time of freeze up and the ice sheet formation is smooth at a low flow. Forming the ice sheet at a flow preserves channel capacity and reduces the flow required to later breakup the ice sheet. Typically, it takes as much flow in the river to move the ice sheet as was there when it formed.

Figure 20: West Montrose Freeze-up Ice Jam Flow Envelope



If flows through the West Montrose reach are high, regulating flows to maintain flow above 32 m^3/s flushes frazil through the West Montrose reach. It must be kept in mind that flushing frazil ice through West Montrose pushes the frazil ice further downstream where it is likely to accumulate either upstream of Hidden Valley Dam, Parkhill Dam, or downstream of the Brantford dikes. As flows through the West Montrose reach recede, reducing Shand Dam discharge to regulate flow below 7 m3/s to facilitate a smooth ice sheet during freeze-up is the objective. There is a large tributary of the Grand River, the Irvine River, that joins the Grand River upstream of the West Montrose reach and downstream of Shand Dam. It is not always possible to regulate flows below 7 m^3/s through the West Montrose reach by reducing the Shand Dam discharge as the local inflow downstream of Shand Dam to the West Montrose reach is higher than 7 m^3/s. Being aware of the flow range through the West Montrose reach that has a higher risk of ice jams is useful information, however flow conditions may preclude the ability to regulate flows to the desired range to reduce the risk of ice jam.

Winter flow augmentation and the ability to increase discharge prior to an anticipated ice break-up are additional approaches that may help reduce the risk of ice jam. Winter flow augmentation helps prevent the ice sheet from freezing to the bottom of the river. If the ice sheet freezes to the bottom of the river, it is more resistant to break-up or to moving out when flows increase, which increases the risk of ice jams. The ice sheet will attach to the bottom of the river if flows

are very low or non-existent. Flow augmentation during the winter maintains flow in the river helping to avoid the ice sheet freezing to the bottom of the river. Increasing river flow by increasing reservoir discharge before break-up can help erode, degrade, and weaken the ice sheet before breakup. This can be an effective means of using the reservoir to reduce the risk of flooding. This approach proved effective in the spring of 2014, an ice sheet was present in the river through the community of Grand Valley, thus there were concerns for potential ice jams at the time of break-up. The discharge from Luther Dam was increased to help erode the ice through the community of Grand Valley. The combination of using the Luther Dam flow to erode ice and the gentle melt at the time of break-up helped avoid ice jams through Grand Valley

The final way large reservoirs can be used to help reduce the risk of ice jam flooding is to regulate and reduce downstream flood flows at the time of break-up particularly when ice jams are in place. Delaying reservoir discharge provides additional time for the ice and ice jams to degrade and weaken. This was the strategy used in 2018 when a large ice jam was in place downstream of the Brantford dikes. Reservoir discharge increases were delayed to reduce downstream flooding and reduce pressure on the ice jam in place through the Brantford reach. Reservoir discharge increases were delayed until after the ice jam had released.

8.3 Ice Jam Mitigation Studies

When warranted, ice jam studies are completed to investigate ice jam mitigation options. An ice jam study was carried out following the February 2018 ice jam through the Brantford reach which resulted in the overtopping of the Brantford dikes.

Ice jam studies focus on the root cause of ice jams in a given reach of a river. Once the root cause of the ice jams is understood, potential mitigation options are considered. In the case of ice through the Brantford reach, this area is very much influenced by the strong sheet ice that forms through the oxbow reach downstream of Brantford where the river slope changes and is much flatter. Ice jams also seem to be affected by Fish Island downstream of the main Brantford dike reach. When ice jams form in the vicinity of Fish Island, flow capacity is reduced through the narrowest portion of the Brantford dike reach near Gilkison Street. The reduced flow capacity can result in overtopping of the dikes.

Results of the ice jam mitigation study identified floodplain relief and raising a portion of the Brantford dike floodwall along River Road. Increasing the ability of flow and ice to gain relief to the floodplain between Gilkison Street and the river is one floodplain relief area. Creating relief to the floodplain by clearing vegetation and possibly contouring the floodplain will provide more flood capacity and space for ice, allowing ice to spread out rather than build up. The second floodplain relief area is between the downstream portion of River Road and the River at Birkett's Lane. Creating floodplain relief in this area will allow ice and flow to by pass ice jams at Fish Island and spread out and gain relief to the broad floodplain downstream of Birkett's Lane and River Road. Complementing additional floodplain relief is raising a portion of the floodwall along River Road. The consultant's investigation report about the Brantford ice jam recommended these mitigation options. The next step is to refine these options and consult with the public through the Environmental Assessment process.

8.3.1 Canadian Coast Guard Icebreaking Port Maitland

The Canadian Coast Guard operates a fleet of icebreakers on the Great Lakes and through the St. Lawrence seaway. These icebreakers are capable of breaking up ice for ship passage through the seaway and for breaking up ice in ports to allow ship access.

The Coast Guard, when called upon and if available, will deploy an icebreaker to Port Maitland to break up ice at the mouth of the Grand River to Port Maitland. A protocol is available through Emergency Management Ontario (EMO) to request Coast Guard assistance. The Community Emergency Management Coordinator (CEMC) for Haldimand County has to make the request to EMO based on advice or a request from the GRCA.

Breaking up ice at the mouth of the Grand River has been effective in the past. The Canadian Coast Guard has responded to requests in a timely manner and is willing to help provided the appropriate Coast Guard equipment (ship) is available to clear ice from Port Maitland. The Canadian Government has a shared services agreement with the US Coast Guard. In the event thata Canadian Ice Breaker is not available to break ice at Port Maitland, the Canadian Coast Guard can request the US Coast Guard to dispatch an icebreaker to Port Maitland. This has happened once in the past, In 2002, a US Coast Guard icebreaker broke ice in Port Maitland. A

Figure: 21 US Coast Guard Icebreaker Breaking Ice Port Maitland 2002

picture of the US Coast Guard icebreaker deployed to Port Maitland in 2002 is illustrated by figure.

8.4 Blasting

Historically, blasting of ice jams with explosives was sometimes used to break up ice jams. Blasting has not been used to break up ice jams in the Grand River since the early 1980's.

Blasting of ice jams is not currently used for a couple of reasons. Blasting an ice jam simply transfers the problem downstream. The ice needs some place to go and if ice is present downstream it has no place to go and blasting ice won't improve this situation. There is also consideration of the liability if an upstream municipality blasts ice and an ice jam forms in a downstream municipality. There are major health and safety considerations regarding how and if blasting experts can safely access the ice to place the explosives. Finally, there is consideration of the potential environmental damage and environmental approvals required which may not be available or available in a timely manner.

While the above considerations all resulted in blasting not being used as an option anymore, it is also possible that winter flow augmentation has also contributed to avoiding the need for blasting. Blasting is often used when the ice sheet is anchored and frozen to the bottom of the river. The intact frozen-in ice sheet is often blasted to loosen it up and fracture it so it will move out. Winter flow augmentation has helped reduce ice sheets in the main Grand River and its tributaries below large reservoirs from having ice sheets freeze to the bottom of the river.

9.0 Climate Change Considerations

There are four trends associated with climate change that have implications for ice jams. These four trends include:

1. More mid-winter melts are occurring in January and February typically followed by flash freezes

2. March and April rainfall patterns are occurring earlier in the year in the months of January and February.

3. More rapid swings in temperature from extreme double digit cold temperatures to mild double digit warm temperatures accompanied with rainfall.

4. A more unstable polar vortex that swings further south that can bring sustained periods of double-digit cold temperatures.

There has been a tendency since the early 1990s for more frequent mid-winter melts in the months of January and February followed by flash freezes. The challenge with mid-winter melts is they are often not of sufficient magnitude or duration to clear ice completely out of the river and can result in ice jams downstream of Brantford or upstream of Cambridge as observed in January 2018. The flash freezes following these melts during periods of higher flows in the river can cause large volumes of frazil ice to be generated that can further complicate ice jams making them more resistant during the normal spring melt.

There has been a trend in recent years of rainfall events and volumes occurring in January and February that would typically only be experienced in March and April. January 2020 saw the largest one-day rainfall in January on record. February 2018 saw the largest one-day rainfall in February on record. The challenge with rainfall events of this magnitude, coupled with double digit mild temperatures is this combination causes rapid increases in river flows with little time

for river ice to degrade. These conditions can lead to severe ice jams particularly if pre-existing ice jams are in place.

A third trend of concern is rapid swings in temperature from sustained extreme cold conditions to extreme mild conditions over a very short period of time, in some cases less than a day. This rapid transition from extreme cold to extreme mild conditions doesn't allow time for river ice to degrade and loosen up. Increased flows to the river can start ice sheet movement but where strong sheet ice exists, ice jam can be expected and typically result.

The final trend observed in recent years that has been attributed to climate change is an unstable polar vortex. The polar vortex can shift south and bring severe cold double digit freezing temperatures to the Grand River watershed. These sustained periods of cold weather can build large volumes of strong sheet ice. The strength and volume of this ice increases the risk of ice jams when the spring breakup occurs.

10.0 Ice Research in the Grand River Watershed

Ice research has been completed in the past, notably by Environment Canada Dr. Spyros Beltaos. Research papers by Dr. Beltaos are included in the reference section of this management plan.

10.1 Characterization of Major Ice Flood Damage Centre Reaches

Identifying the ice jam characteristics for specific river ice jam reaches is an important step toward understanding ice jam risk and the factors affecting risk in different reaches. A characterization example is included below for the Grand River Port Maitland to Dunnville Reach. The following example provides a template that could be used to document information and knowledge in other reaches. These reach characterizations can provide useful technical information and knowledge when dealing with an ice jam in a specific reach.

Grand River - Port Maitland Dunnville Reach Example Template

- **Mechanisms Contributing to Risk of Ice Jams**

Ice jams in the reach of the Grand River from Port Maitland to downstream of Dunnville Dam are influenced by the ice sheet in Lake Erie and by the bend in the River upstream of the community of Port Maitland.

Ice jams through this reach are influenced by the sheet ice in Lake Erie and by the sheer volume of ice moving down the river from the upstream watershed. If the Lake Erie sheet ice states intact, it obstructs the ice moving down the river and will form an ice jam typically at the bend in the river upstream of the community of Port Maitland. The sheet ice from Lake Erie typically extents up to the noted bend in the river, it obstructs ice moving down the river, an ice jam builds until the ice and flow in the river can find sufficient relief in the floodplain beyond the banks of the river.

- **Affected Area**

The areas typically affected are the portion of the town of Dunnville downstream of Dunnville Dam, portion of Dunnville along Sulphur Creek and portion of Port Maitland West of the River.

There are several marinas in this reach of the river however it is presumed the marinas would not be significantly impacts as it is their off season.

- **Last Major Ice Jam**

Last major ice occurred in this reach in February 2009. Major flooding was experienced in the community of Dunnville downstream of Dunnville Dam and in the community of Port Maitland. Flooding in areas downstream of the Dunnville Dam approached the Regulatory Flood Elevation for this reach of river.

- **Factors Aggravating the Risk of Ice Jams**

Intact sheet ice in Lake Erie at the mouth of the Grand River through Port Maitland is the largest contributing factor to ice jams through this reach. The size of the upstream watershed and the potential of that upstream watershed to produce large volumes of ice is also a large contributing factor. Other factors aggravating ice jams through this reach are the volume of ice and strength of ice moving down the river from the upstream watershed. If the winter has been particularly cold, large volumes of ice can be generated from the upstream watershed. The severity of cold conditions can also build strong blue ice which resists breaking up as it has travels down the river and flows over low-head dams in Caledonia and Dunnville.

- **Factors Mitigating the Risk of Ice Jams**

The Caledonia and Dunnville Dams act as ice storage areas and provide a level of mitigation by causing ice chunks/blocks to break up as the ice flows over these dams.

- **Monitoring In Place To Anticipate and Detect Ice Jams**

There is river level monitoring in place at Port Maitland, at Sulphur Creek downstream of Weir 3 on Dunnville Dam and above Dunnville Dam at Weir 3. These gauges provide real-time water level information with the ability for real-time alarming if specified level thresholds are exceeded. The Port Maitland and Sulphur Creek gauges play an important role to detect ice jams and report on water level conditions during ice jams.

The level gauge upstream of Dunnville Dam plays an important role, reporting levels upstream of Dunnville dam and provides useful information regarding movement of ice or backup of ice upstream of Dunnville Dam.

Improved monitoring by the addition of river level gauges and river cameras at Cayuga and at Caledonia Dam would provide additional early detection of ice movement upstream of the Town of Dunnville offering additional advance warning of the potential for ice jams.

- **Mitigation Options to Reduce the Risk or Impacts of Ice Jam Flooding**

The primary mitigation option for ice jams in the community of Dunnville is the ability to call in the Canadian Coast Guard ice breaker when needed to break up ice at the mouth of the Grand River to allow passage of ice out into Lake Erie.

- **Recommendations to Enhance Monitoring and Response**

Addition of threshold monitoring for ice jams at the Port Maitland, Sulphur Creek and Dunnville Dam gauge stations by the addition of rating of change alarm notifications.

Additional of level monitoring at the highway 3 bridge over the Grand River in the community of Cayuga and at the Caledonia Dam in the community of Caledonia. The addition of river cameras is also recommended at these locations.

11.0 Summary

Ice jams are a naturally occurring phenomena in rivers in cold climates. Many factors affect ice formation, ice accumulation and ice break, all these factors influence the risk of ice jams along with the weather conditions at the time ice breaks up. While the risk of ice jams can be anticipated, they cannot be predicted or forecast. The main focus if ice management in the Grand River watershed is awareness of the potential for ice jams, anticipating when break-up may occur, and monitoring conditions during ice break-up.

Recommendations

1. It is recommended the history of ice monitoring maps and associated reports from 1997 to present be analyzed and the geographic location where ice jams have occurred be organized in the GRCA's GIS system. The creation of this GIS layer would be accomplished with internal staff resources in 2025.
2. Once the coordinates of ice jam locations have been organized, it is recommended that the Municipality-wide flood emergency maps be updated to include known locations of historical ice jams and that updated flood emergency maps be prepared and distributed to municipal Community Emergency Management Coordinators.
3. It is recommended that Table 2 in this report "Chronology of Major Ice Jams Grand River Watershed" be maintained annually to document occurrences of major ice jams and have available for quick reference.
4. It is recommended that a GIS layer of key reaches where RAPS surveillance information would be beneficial be created. The identified reaches would be beneficial to ice management, ice jam documentation and ice jam status reporting. Once created, this GIS layer should be shared with local municipal emergency management staff who coordinate RAPS surveillance. Pre-identifying reaches of interest is intended to assist with optimizing use of RAPS to safely capture ice and ice jam information. The creation of this GIS layer would be accomplished with internal staff resources in 2025.It is recommended that investigation and documentation during and after major ice jams continue as an effort to build ice jam knowledge and understanding in the Grand River Watershed.
5. It is recommended that watershed wide ice conditions maps continue to be created to document ice conditions throughout the winter and ideally immediately prior to anticipated ice breakup.
6. It is recommended that the template used to document ice processes completed for the Port Maitland Dunnville reach in this report be completed for the other high risk ice jam reaches in the Grand River Watershed, including:
    a. Grand River – Dunnville Dam to Cayuga Reach
    b. Grand River – Caledonia Reach
    c. Grand River – Paris Reach
    d. Grand River – Cambridge Blair Reach
    e. Grand River – Cambridge Freeport Reach
    f. Grand River – Conestogo-West Montrose Reach
    g. Grand River –10th Line Reach

h. Grand River – Grand Valley Reach
i. Conestogo River – Drayton Reach
j. Conestogo River – St. Jacob Reach
k. Speed River – Armstrong Mills–Damby Mills Dam Reach
l. Eramosa River – Rockwood Reach
m. Eramosa River – Eden Mills-Cooks Mills Reach
n. Nith River – New Hamburg Reach
o. Nith River – Haysville Reach
p. Nith River – Oxford County-Drumbo Reach

7. The completion of templates for other high risk ice jam locations will be completed over the coming year as time permits. t is recommended that additional river level monitoring be implemented at the following locations to monitor ice movement, and to detect and monitor ice jams:

    a. Grand River at Cayuga
    b. Grand River at Caledonia Dam
    c. Grand River at Brantford Erie Avenue
    d. Grand River at Above Parkhill Dam
    e. Grand River at the East Garafraxa 10th Line Bridge
    f. Grand River at Grand Valley at the Main Street Bridge.

    The anticipated budgetary cost for the above recommendation is an initial cost $12,000 which could be funded from the gauge reserve. It is recommended the purchase and installation of this equipment be completed with internal staff resources in 2025.

8. It is recommended that river level monitoring sensors be implemented at the following existing water quality gauge sites to monitor ice movement, detecting ice jams, and monitoring ice jams:

    a. Grand River at the Blair Water Quality Gauge
    b. Grand River at the Glen Morris Water Quality Gauge

    The anticipated budgetary cost for the above recommendation is an initial cost of $3,000 which could be funded from the gauge reserve. It is recommended the purchased and installation of this equipment be completed with internal staff resources in 2025.

9. It is recommended that additional river camera monitors be considered at the following locations to monitor ice movement and ice jams:

    a. Grand River at Cayuga
    b. Grand River at Caledonia

    The anticipated budgetary cost for the above recommendation is an initial cost of $3,000 which could be funded from the gauge reserve. It is recommended the purchase and installation of this equipment be completed with internal staff resources in the 2025 to 2026 time frame.

10. It is recommended that the aging infrastructure of the current tipping bucket rain gauges be replaced with modern heated tipping bucket rain gauges capable of monitoring both liquid

and frozen precipitation. This recommendation in response to changing climate conditions and trends towards more mid-winter melts. Modern heated tipping bucket rain gauge technology is better equipped to operate through winter and spring conditions. Precipitation observations are a primary input to flood forecasting models and operational decisions. Currently, the GRCA operates 28 rain gauges throughout the watershed.

The anticipated budgetary cost for the above recommendation is an initial cost of $120,000 for the new equipment which could be funded from land sales reserve. It is recommended the purchase and installation of this equipment be completed with internal staff resources over the next three years, during the 2025 to 2027 time frame.

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Ecosystem Recovery, 2021, Brantford Ice Jam Mitigation Feasibility Study

Appendix A – Available_Ice_Condition_Maps_1997-2023

3 Supporting Spreadsheets and Informatoin for Ice Management Plan\Appendix A - Available_Ice_Condition_Maps_1997-2023.pdf

Appendix B – Characterization Ice Jam Locations in the Grand River Watershed

3 Supporting Spreadsheets and Informatoin for Ice Management Plan\Appendix B – Characterization Ice Jam Locations in the Grand River Watershed.pdf

Grand River Conservation Authority

Report number: GM-10-24-100

Date: October 25, 2024

To: Members of the Grand River Conservation Authority

Subject: Current Watershed Conditions as of October 15, 2024

Recommendation:

THAT Report Number GM-10-24-100 – Current Watershed Conditions as of October 15, 2024 be received as information.

Summary:

Precipitation in September was below average across the watershed. On average, the stations have only received about 40 percent of the long-term normal precipitation for half of October so far. As of October 15, 3-month indicators for precipitation are showing below normal conditions at 6 of 8 climate stations.

Recorded temperatures in September at Shand, Luther, Shades, and Environment and Climate Change Canada's Brantford Airport climate (Brantford) stations, show that the average temperature across the watershed was around 2 degrees Celsius warmer than normal. The temperature during the first 15 days of October at the Shand Dam climate station was around 1. 1 degrees Celsius warmer than the long-term average for the first half of October.

Guelph Dam and Luther Dam are at their normal operating levels for this time of year and Shand Dam is just below the lower rule curve. Conestogo Dam has been drawn down to accommodate concrete rehabilitation on the upstream side of the dam. The GRCA is also preparing for a maintenance project on the Shand Dam, pending GRCA Board approval on October 25, 2024.

The large reservoirs will continue to serve their primary functions of flood storage and low flow augmentation, however there may be some deviation from the low flow target at Doon in November and December because of the rehabilitation work at Shand and Conestogo Dams.

Lake Erie continues to be above the long-term average.

The seasonal forecast over the next three months is for above normal temperatures and below normal precipitation.

Report:

Precipitation

The watershed received below normal rainfall in September.

In the first 15 days of October, recorded precipitation ranged from 24 to 80 percent of the long-term average for half of the month of October at climate stations across the watershed. Data is shown in Table 1.

Trends in precipitation, as presented in Table 2, show that during the past 3 months, the watershed has experienced drier than normal conditions on average. Precipitation amounts ranged from around 74 percent at the Conestogo climate station to 109 percent at the Shades station with an overall average of around 88 percent. Over longer periods, recorded precipitation

is close to normal long-term averages. A visual representation of these trends for the Shand climate station is provided in Figure 1.

Table 1: Current monthly precipitation for climate stations across the watershed up to the morning of October 15, 2024.

Climate Station	Current Month Precipitation (mm)	Long Term Average Precipitation (mm)	Percentage of Long-Term Average (%)
Shand	14.0	42.1	33%
Conestogo	22.0	46.5	47%
Guelph	9.2	39.0	24%
Luther	35.8	44.6	80%
Woolwich	10.2	34.1	30%
Laurel	12.8	42.6	30%
Shades	9.6	40.0	24%
Brantford	14.5	34.8	42%

Table 2: Precipitation trends as a percentage (% percent) of the long-term average over the last 18 months.

Climate Station	Last Month	Last 3 Months	Last 6 Months	Last 12 Months	Last 18 Months
Shand	43%	84%	107%	107%	107%
Conestogo	31%	74%	88%	93%	99%
Guelph	39%	85%	106%	103%	106%
Luther	24%	86%	105%	103%	106%
Woolwich	22%	78%	99%	94%	96%
Laurel	32%	84%	97%	95%	95%
Shades	33%	109%	115%	108%	112%
Brantford	32%	106%	116%	112%	108%

Air Temperatures

Recorded temperatures in September at Luther, Shand, Shades, and Brantford were warm at around 2 degrees Celsius higher than the long-term average at the stations, overall.

The average temperature at the Shand Dam climate station over the first 15 days of October was 11 degrees Celsius which is around 1. 1 degrees warmer than the long-term average for the first half of the month of October. A visual representation of these trends for the Shand climate station is provided in Figure 2.

Lake Erie Water Levels

During September, the average lake level was approximately 0.28 meters above the long-term average. As of October 14, levels have followed a seasonal decline but remain above the long-term average.

The most probable forecast for Lake Erie is for lake levels to remain above the long-term average for the remainder of the year. Figure 3 shows the observed water levels starting in 2021 as well as the range of water levels expected over the next six months.

Reservoir Conditions

The large reservoirs are being used to meet downstream flow targets. Dry conditions this fall mean that reservoirs are continuing to be more heavily relied upon to augment flows downstream. Luther and Guelph reservoirs are at their normal operating levels for this time of year and Shand is just below the lower rule curve.

GRCA is undertaking concrete rehabilitation work on the upstream (reservoir facing) side of Conestogo dam which is continuing into the fall of 2024 and again in the summer/ fall of 2025. To accommodate this concrete work, water in the Conestogo Lake reservoir has been drawn down below the lower rule curve, and levels are expected to continue to drop over the next 2 months to continue the concrete rehabilitation. Water levels may be reduced up to 30 cm per day as needed to accommodate the work.

The GRCA is also preparing for a maintenance project on the Shand Dam, pending GRCA Board approval on October 25, 2024. To accommodate the work, water in the Belwood reservoir will be lowered at a faster rate than is typical for this time of year, beginning the week of Tuesday, October 15, 2024. The drawdown will continue until a water elevation of approximately 415 meters is met prior to the project beginning. The dam will continue to operate as intended throughout the duration of the project and provide its primary flood storage and flow augmentation functions.

Reservoir operations and drawdown at other GRCA dams may be adjusted to accommodate the maintenance drawdowns at Shand and Conestogo and to augment low flow as much as possible. The concrete rehabilitation projects may result in a deviation from the low flow target at Doon in November or December. The impact of deviating from the low flow target will be mitigated by lower water temperatures at this time of year and significant impacts on water quality are not anticipated.

There is 73 and 88 percent available storage at Shand and Conestogo, respectively. Year to date reservoir levels and operating rule curves are shown in Figures 4 and 5 for the four largest reservoirs.

Low Water Response

Members of the Grand River Low Water Response Team met on September 27, 2024, to discuss recent dry conditions. The watershed has received below average rain since August, leading to precipitation and stream flow indicators declining below the threshold for low water conditions in some areas.

Considering seasonal water use trends and that above average rainfall leading up to the fall seemed to help maintain groundwater levels, the Low Water Response Team agreed with GRCA's recommendation to remain in normal low water condition at the time of the meeting.

Precipitation and streamflow data will continue to be monitored along with groundwater level data. The Low Water Response Team will meet to review conditions as a group, as needed.

Long Range Forecast

Environment and Climate Change Canada is forecasting above normal temperatures and below normal precipitation for the watershed over the 3 months of October, November, and December.

Flood Preparedness and Flood Centre Activities

The GRCA flood operations centre did not issue any flood messages in September or October, so far.

Conditions are being monitored closely. Staff continue to hold weekly meetings as part of planning initiatives, dam operations, and flood emergency preparedness.

Training sessions for dam operators and field staff will be conducted as needed.

Financial Implications:

Not applicable

Other Department Considerations:

Not applicable

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Figure 1: Shand Dam Monthly Precipitation 2020 to morning of October 15, 2024

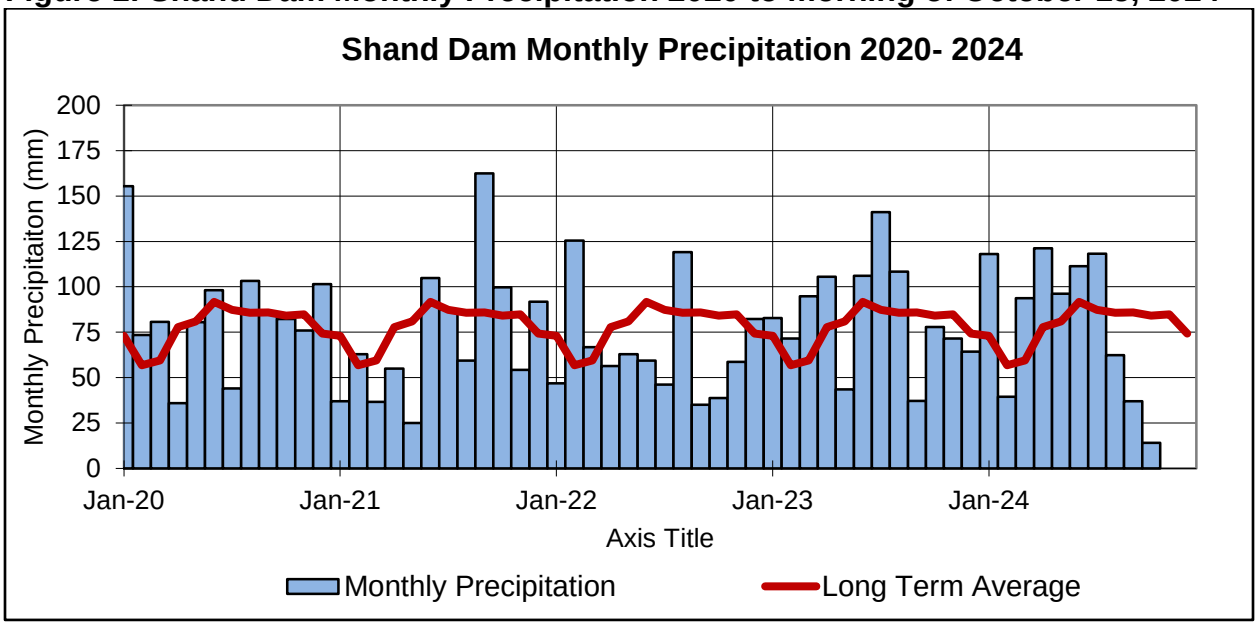


Figure 2: Monthly Average Air Temperatures at Shand Dam from 2020 to October 15, 2024

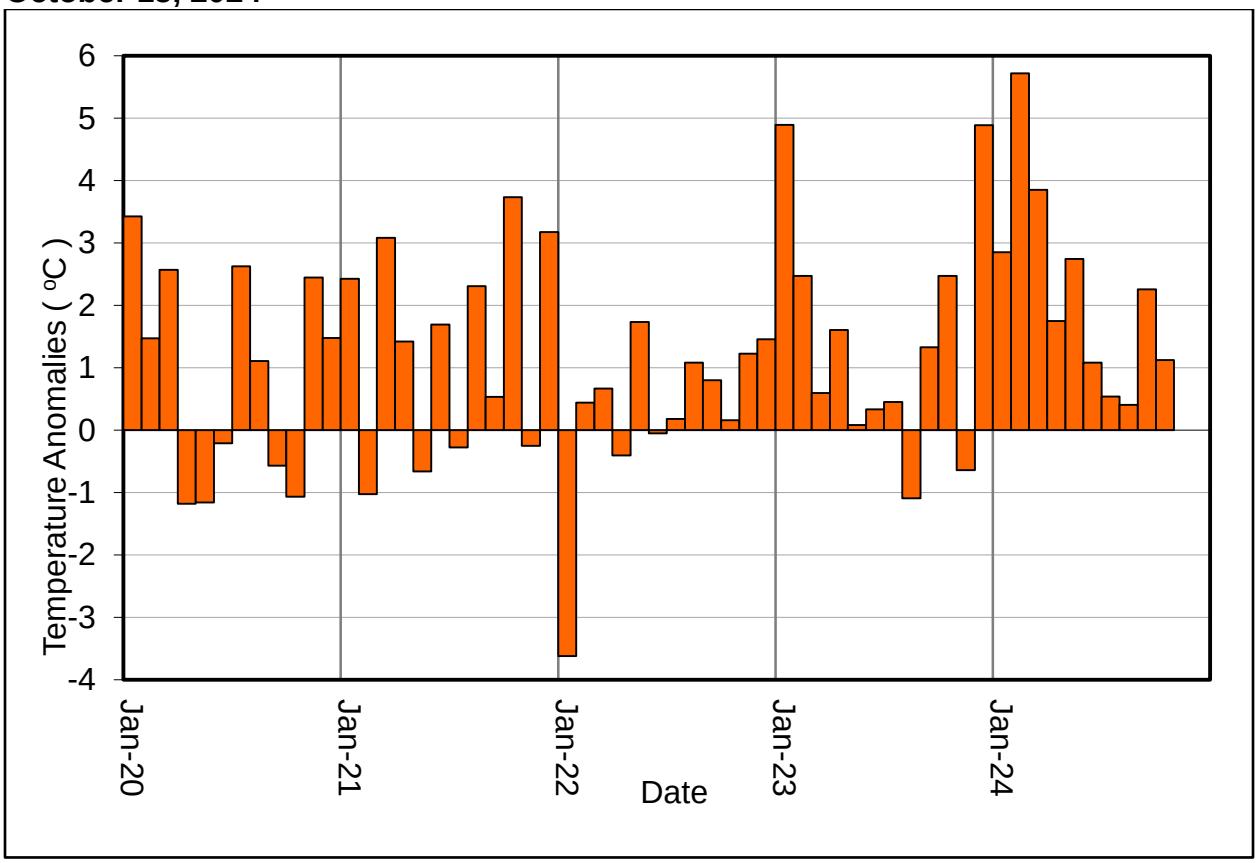


Figure 3: Water levels for Lake Erie at Port Colborne

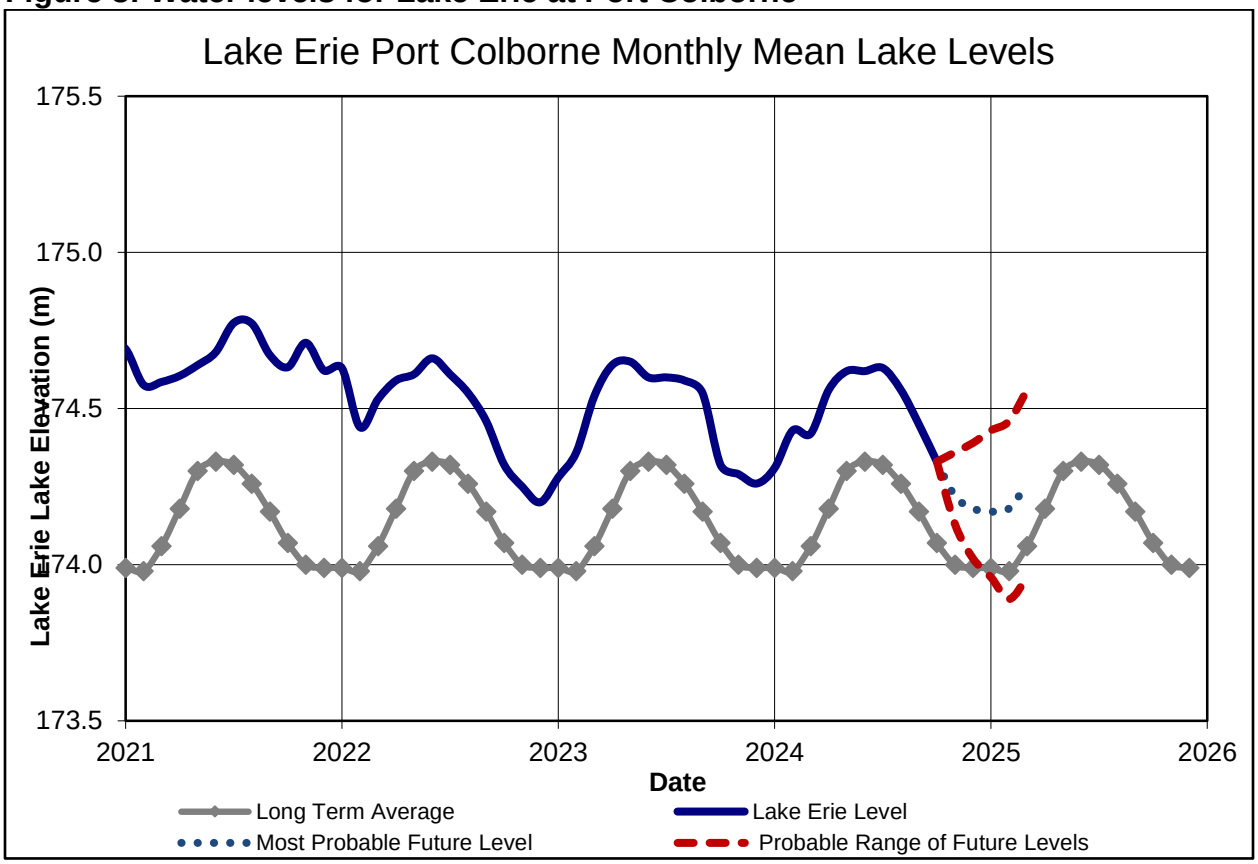
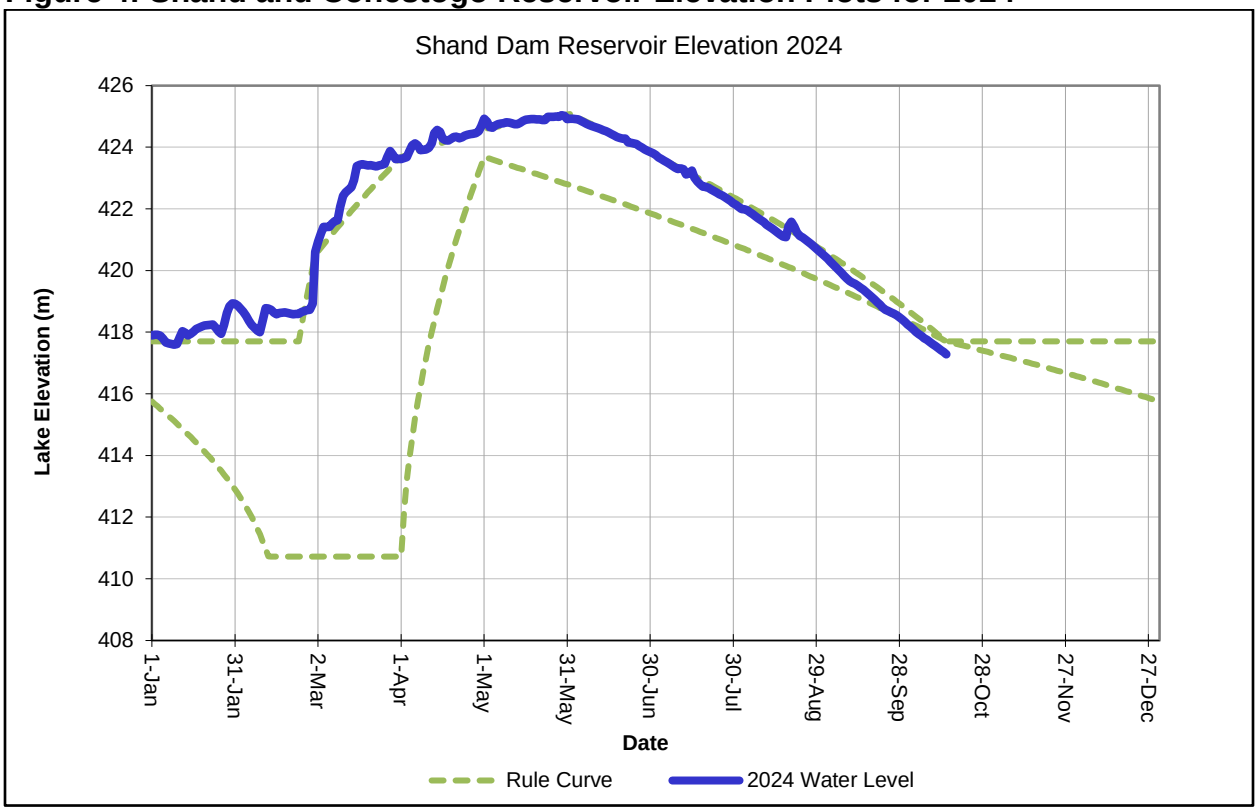


Figure 4: Shand and Conestogo Reservoir Elevation Plots for 2024



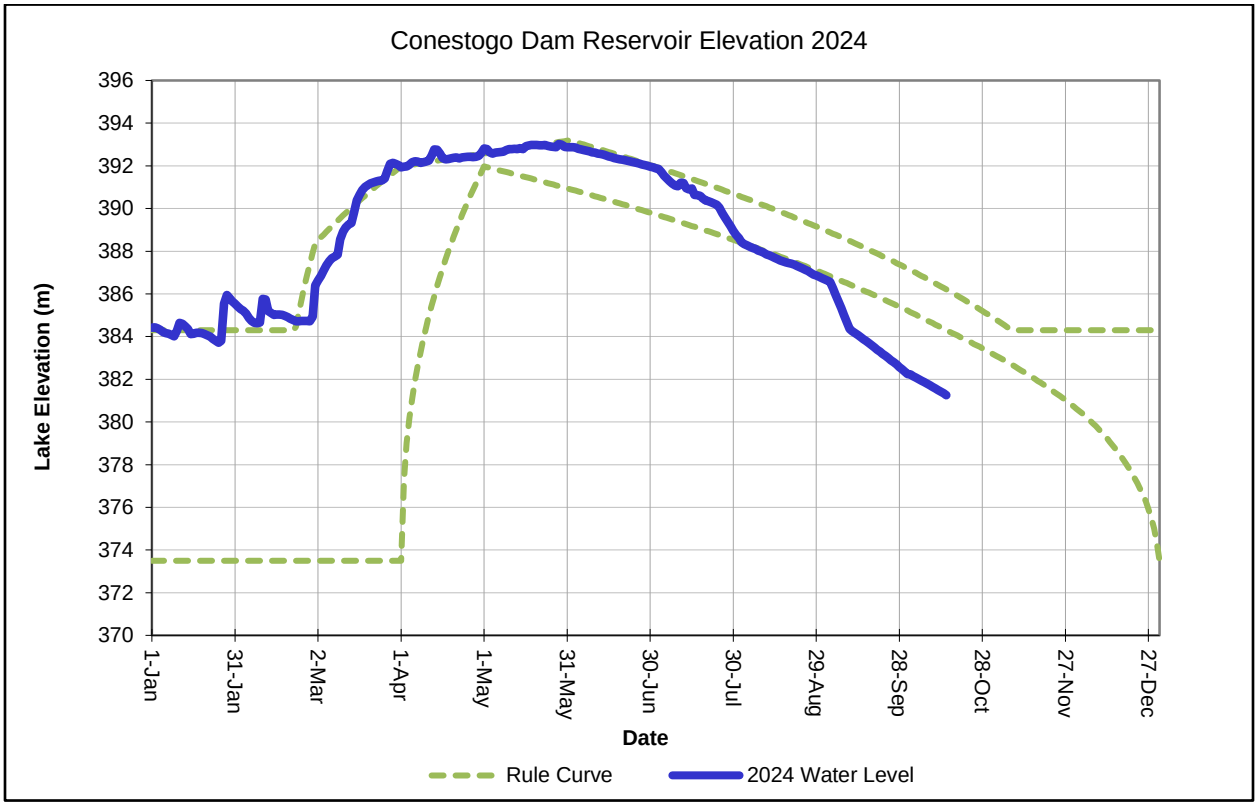


Figure 5: Guelph and Luther Reservoir Elevation Charts for 2024