

Grand River Conservation Authority Agenda - General Meeting

Friday, May 24, 2024 9:30 a.m. Hybrid Meeting of the General Membership GRCA Administration Centre Zoom Virtual Meeting

- 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

THAT the minutes of the General Membership Meeting of April 26, 2024 be approved as circulated.

- 7. Business Arising from Previous Minutes
- 8. Hearing of Delegations
- 9. Presentations

10. Correspondence

THAT Correspondence from Michael Melvin regarding an MZO application to the province from the City of Waterloo be received as information.

a. Michael Melvin - MZO Application by the City of Waterloo

Pages

8

1

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

12. Reports:

a.	GM-05-	24-48 - Report of the Audit Committee	10
	THAT th	he Report of the Audit Committee be received as information.	
	1.	AUD-04-24-01 -Source Protection Plan Special Audit Requirement	11
	2.	Draft Report of the Auditors	14
	3.	Ministry of Environment, Conservation and Parks Financial Report	19
b.	GM-05-	24-45 - Cash and Investment Status	21
		Report Number GM-05-24-45 – Cash and Investment Status – April 2024 ived as information.	
C.	GM-05-	24-49 - Financial Summary	23
	THAT th	he Financial Summary for the period ending April 30, 2024 be approved.	
d.	Minutes	s of the Ad-hoc CA Act Regulations Committee - May 2, 2024	27
	1.	GM-05-24-43 - ERO Posting 019-8462 - Review of Proposed Policies for a new Provincial Planning Policy Instrument	29
		THAT the Minutes of the Ad-hoc CA Act Regulations Committee meeting held on May 2, 2024 and Report Number GM-05-24-24 – ERO Posting 019-8462 - Review of proposed policies for a new provincial planning policy instrument be received as information.	
e.		24-47 - Conformity and Housekeeping Update - GRCA's Policies for the stration of Ontario Regulation 41/24	32
	the Dev Waterco	he Grand River Conservation Authority Policies for the Administration of velopment, Interference with Wetlands and Alterations to Shorelines and ourses Regulation - Ontario Regulation 150/06 last revised January 26, e revoked;	
	Adminis	HAT the Grand River Conservation Authority Policies for the stration of the Prohibited Activities, Exemptions and Permits Regulation io Regulation 41/24 included as Appendix B be approved and take	

effect on May 24, 2024.

- 92 f. GM-05-24-44 - Elora Low Level Bridge Construction THAT the Grand River Conservation Authority (GRCA) award the tender for the Elora Low Level Bridge Rehabilitation to HugoMB Contracting Inc. for the amount of \$504,121.00 excluding HST; AND THAT a total budget of \$600,000.00 excluding HST be approved. 94 GM-05-24-46 - Conestogo Dam Concrete Repair Tender Award g. THAT the Grand River Conservation Authority accept the tender with Clearwater Structures Incorporated in the amount of \$3,281,560.00 (excluding HST) as it was the lowest tender submitted meeting all tender requirements; AND THAT AECOM Canada Limited. be retained to oversee the Contract Administration and Quality Assurance for the project at a cost of \$280,100 (excluding HST) for both Phases 4 and 5. 96 h. GM-05-24-50 - Current Watershed Conditions THAT Report Number GM-05-24-50 – Current Watershed Conditions as of May 14, 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): the security of property.

- a. Minutes of the previous closed session
- b. GM-05-24-C05 Cyber Security
- 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: Time: Location:	April 26, 2024 9:30 am Hybrid Meeting of the General Membership GRCA Administration Centre Zoom Virtual Meeting
Members Present	Bruce Banbury, Christine Billings, John Challinor II, Ken Yee Chew, Brian Coleman, Kevin Davis, Mike Devine, Jim Erb, Susan Foxton, Guy Gardhouse, Gord Greavette, Lisa Hern, Colleen James, Daniel Lawrence, Natasha Salonen, Sandy Shantz, Rob Shirton, Jerry Smith, Shawn Watters, Chris White, Kari Williams, Alex Wilson, Pam Wolf
Regrets	Gino Caputo, Doug Craig, Dave Miller
Staff	Samantha Lawson, Karen Armstrong, Beth Brown, Krista Bunn, Janet Ivey, Murray Lister, Katelyn Lynch, Sonja Radoja, Lisa Stocco, Vahid Taleban, Pam Walther- Mabee, Benjamin Cheng, Shari Dahmer, Nick Randle, Eowyn Spencer, Ron Wu Winter
Others	Phil Monture, Six Nations of the Grand River

1. Call to Order

The Meeting was called to order by the Chair at 9:38 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 made the following remarks during the preceding Source Protection Authority meeting, and they are copied here for ease of reference:

- The Guelph Lake Nature Centre construction broke ground this week on April 23. Attended by key donors, staff, and Foundation Board members, the groundbreaking was a success and we are looking forward to seeing the progress as the building is developed. Thank you to the GRCA Board for the ongoing support for this project, and to staff and donors who made it a reality.
- On April 15 Conservation Ontario Council held its regular meeting, following which a meeting with Conservation Authority leaders was hosted by Minister Graydon Smith. This meeting provided an opportunity to discuss current items related to the changes faced by conservation authorities over the past few years.
- GRCA Conservation Areas will open for the season on May 1 for another great season of connecting people to the outdoors.
- The GRCA's annual Tree Sale will be held this year on Friday, May 10 starting at 8am. Available trees are based on surplus stock which usually results in a wide variety of species.

 The Brantford-Brant Children's Water Festival is running from May 14-16. The outdoor, threeday festival uses interactive, curriculum-based learning to teach 1,500 local grade four students the importance of water. Open to students in the City of Brantford, County of Brant and Six Nations of the Grand River, the festival brings together many partners, subject matter experts and high school students to teach about the most valuable resource to watershed communities' young members.

4. Review of Agenda

24-61

Moved By Brian Coleman **Seconded By** Guy Gardhouse 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 Meeting

24-62 **Moved By** Mike Devine **Seconded By** Bruce Banbury THAT the minutes of the General Membership Meeting of March 22, 2024 be approved as circulated.

Carried

7. Business Arising from Previous Minutes

There was no business arising from the minutes of the previous meeting.

8. Hearing of Delegations

8.a Phil Monture, Six Nations of the Grand River

- Phil Monture attended the meeting on behalf of Six Nations of the Grand River to provide a presentation and discuss sharing lands and improving the working relationship with the GRCA.
- The presentation provided an overview of the history of various land transactions and treaties that led to the development of the Haldimand Treaty, followed by discussion on current mandates, principles, and values shared by Indigenous Communities and Conservation Authorities (CAs).
- The presentation continued with an overview of the current status of Land Claims and ongoing litigation with the Federal Government, and various challenges working with different levels of government.
- Mr.Monture continued the presentation noting the benefits of fostering a stronger relationship with the CAs, as many of the values and principles are shared and focused on a common goal of conservation of the land.
- Board members thanked Mr.Monture for his presentation and ongoing efforts to reestablish a strong working relationship with the GRCA. Many Members commented on the alignment with the GRCA's new strategic priority of strengthening connections with Six Nations of the Grand River and the Mississaugas of the Credit First Nations.
- There was further discussion related to municipal roles in Indigenous representation and partnerships. There was a question about collaborative educational programs with the GRCA, and the delegation noted that joint efforts have lapsed over time but there is opportunity to look at outdoor learning.
- In response to a question from the Board, S.Lawson noted that the Conservation Authorities Act stipulates that CA Board Members must represent levy-paying municipalities, and that

opportunities to engage with Indigenous Communities at the staff level are taken wherever possible and appropriate.

• The Chair thanked Mr.Monture for the presentation.

9. Presentations

There were no Presentations.

N.Salonen left the meeting at 10:35 a.m.

10. Correspondence

10.a City of Guelph - 2025 Budget Confirmation Guideline

There were no questions regarding the Correspondence.

24-63

Moved By Pam Wolf **Seconded By** Ken Yee Chew THAT Correspondence from the City of Guelph regarding their 2025 Budget Confirmation Guidelines be received as information.

Carried

11. 1st and 2nd Reading of By-Laws None.

12. Reports:

12.a GM-04-24-38 - General Insurance Renewal 2024-2025

- There was a question regarding measures in place related to cyber security, and the Chair asked staff to provide information in a future closed session meeting, as it relates to the security of the organization.
- J.Challinor asked if staff are satisfied with the renewal rates and if self-insurance should be considered similar to the approach taken by some municipalities. K.Armstrong advised that staff are satisfied with the rates and that being part of the group insurance program provides financial benefits for the organization.

24-di64

Moved By Gord Greavette

Seconded By John Challinor II

THAT Report Number GM-04-24-38 – General Insurance Renewal – 2024-2025 be received as information.

Carried

12.b GM-04-24-40 - Cash and Investment Status

There were no questions or comments on this item.

24-65

Moved By Rob Shirton

Seconded By Kari Williams

THAT Report Number GM-04-24-40 – Cash and Investment Status – March 2024 be received as information.

Carried

12.c GM-04-24-41 - Financial Summary

There were no questions or comments on this item.

24-66 **Moved By** Shawn Watters **Seconded By** Susan Foxton THAT the Financial Summary for the period ending March 31, 2024 be approved.

Carried

12.d GM-04-24-34 - Conestogo Lake Conservation Area Septic Upgrades

There were no questions or comments on this item.

24-67

Moved By Mike Devine

Seconded By Jim Erb

THAT the Grand River Conservation Authority (GRCA) award the tender for the Conestogo Lake Conservation Area Septic System Upgrades to Weber Environmental Services d/o 1159473 Ontario Limited for the amount of \$206,072.00 excluding HST;

AND THAT a total budget of \$230,000.00 excluding HST be approved.

Carried

12.e GM-04-24-33 - ERO Posting 019-8462 - Review of proposed policies for a new provincial planning policy instrument

The Chair advised that comments are due to the Province before the next meeting of the General Membership, and as such staff are requesting that comments be reviewed and approved by the Ad-hoc Committee to ensure timelines are met. The Ad-hoc Committee will be meeting on May 2, 2024.

24-68

Moved By John Challinor II

Seconded By Lisa Hern

THAT the Conservation Authorities Act Regulations Committee be authorized to approve staff comments on ERO Posting 019-8462– Review of proposed policies for a new provincial planning policy instrument on behalf of the GRCA General Membership.

Carried

12.f GM-04-24-39 - ERO Posting 019-8320 - Regulation Detailing New Minister's Permit and Review Powers

There were no questions or comments on this item.

24-69

Moved By John Challinor II

Seconded By Jerry Smith

THAT Report Number GM-04-24-39 – Regulation detailing new Minister's Permit and Review powers under the Conservation Authorities Act be approved and submitted to the Environmental Registry of Ontario.

Carried

12.g GM-04-24-37 - Fee Policy Amendments

There were no questions or comments on this item.

24-70

Moved By Bruce Banbury Seconded By Pam Wolf

THAT amendments to the Grand River Conservation Authority Fee Policy as outlined in this report be approved and implemented effective April 26, 2024;

AND THAT amendment to Fee Schedule 2 – Conservation Area Programs and Services be approved and implemented effective April 26, 2024;

AND THAT amendments to Fee Schedule 3 – Planning and Regulations Fees be approved and implemented effective April 26, 2024.

Carried

12.h GM-04-24-32 - Permits Issued under Ontario Regulation 150/06

There were no questions or comments on this item.

24-71

Moved By Gord Greavette

Seconded By Brian Coleman

THAT Report Number GM-04-24-32 – Permits Issued under Ontario Regulation 150/06 be received as information.

Carried

12.i GM-04-24-36 - Kayanase Restoration Work at Arkell-Smith

- Ron Wu-Winter provided a presentation detailing a restoration project to be completed at GRCA's Arkell-Smith property in collaboration with Kayanase, a greenhouse that supports ecological restoration.
- The presentation highlighted the mutually beneficial relationship between the GRCA and Kayanase, and the wealth of benefits this collaborative project will achieve to support ongoing restoration work at the property.
- The Arkell-Smith property lies South-East of Guelph with the Eramosa River bordering the southern edge of the property, and there is one public recreation trail. Since the 1970s, a large part of the property has been subject to reforestation efforts, and 140ha of the 160ha is now forested. Ongoing restoration of the forest plantation is an important aspect of the broader restoration goals of the GRCA, and in the case of this property, there is an added threat of non-native invasive species which increases the consideration of added control efforts.
- Board Members thanked staff for the presentation and commented on the beneficial partnership.
- The Members from Guelph asked about trail closures and signage, and it was noted that appropriate signage will be added as the project progresses. Minimal trail closures are anticipated and will be communicated to the public in advance if they become necessary.

24-72

Moved By Shawn Watters

Seconded By Daniel Lawrence

THAT Report Number GM-04-24-36 – Kayanase Restoration Work at Arkell-Smith be received as information.

Carried

12.j GM-04-24-35 - Draft Watershed-based Resource Management Strategy

- Janet Ivey provided a presentation on the Watershed-based Resource Management Strategy, which is being developed as required by Ontario Regulation 686/21.
- The presentation highlighted the objectives of the strategy, as well as some background around its development.
- The Strategy provides a detailed look at how the GRCA's various projects and program areas address many different watershed issues, including population growth, agricultural production, climate change, flooding and drought, water quality, and natural areas. The guiding principles of the Strategy highlight the scale of watershed management, expertise, sustainability, and collaboration which support the priorities of watershed municipalities, Indigenous Communities, and other stakeholders.

- J.Ivey highlighted that public engagement will be initiated following approval of the draft Strategy, and the review period will be open from April 29 to June 7. A summary of comments and the final strategy will be prepared for the June Board meeting.
- The Board thanked staff for the presentation and all of the work that supported the development of the Strategy.

24-73

Moved By John Challinor II

Seconded By Guy Gardhouse

THAT Report Number GM-04-24-35 – Draft Watershed-based Resource Management Strategy be received as information;

AND THAT the Grand River Conservation Authority direct staff to undertake consultation on the draft Strategy;

AND THAT the Grand River Conservation Authority send a letter to participating municipalities, Six Nations of the Grand River, and the Mississaugas of the Credit First Nation to advise them of the consultation period on the draft Strategy.

Carried

12.k GM-04-24-42 - Current Watershed Conditions

There were no questions or comments on this item.

24-74

Moved By Brian Coleman **Seconded By** Rob Shirton THAT Report Number GM-04-24-42 – Current Watershed Conditions as of April 16, 2024 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 None.

16. Other Business

17. Closed Meeting

24-75

Moved By Gord Greavette **Seconded By** John Challinor II THAT the General Membership enter a closed meeting in accordance with the *Municipal Act section 239(2)* for the following purpose(s): proposed or pending acquisitions or dispositions, and litigation or potential litigation.

Carried

The live-meeting stream was paused while the General Membership convened in closed session.

24-76 **Moved By** Susan Foxton **Seconded By** John Challinor II THAT the General Membership reconvene in open session.

Carried

K.Davis exited the meeting at 11:15 a.m. during the closed session.

The live-meeting stream was resumed when the General Membership reconvened in open session.

17.a Disposition of Land - 5500 Jones Baseline - Guelph-Eramosa .

24-77 **Moved By** Shawn Watters **Seconded By** Mike Devine IN ORDER TO FURTHER THE OBJECTS OF the Grand River Conservation Authority by raising funds through the disposition of surplus lands,

THEREFORE IT BE RESOLVED THAT the Grand River Conservation Authority sell the lands municipally known as 5500 Jones Baseline, Guelph, Ontario, and legally described as Part of PIN # 71368-0021, Parts of Lots 9, 10, and 11, Concession 9, Division "C", formerly Township of Guelph, County of Wellington, Province of Ontario, designated as Part 2 on Plan 61R-233, comprised of 26 acres, to Jason Weir, Steven Weir, and Patricia Weir, at the purchase price of - \$1,851,000.00.

Carried

17.b License Agreement - Kiwanis Club of Guelph

24-78

Moved By Kari Williams

Seconded By Pam Wolf

THAT the Grand River Conservation Authority enter into a Licence Agreement with Kiwanis Club of Guelph for a term of 10 years, commencing on July 1, 2024.

Carried

17.c Canada Emergency Wage Subsidy (CEWS) Update

24-79 **Moved By** Sandy Shantz **Seconded By** Susan Foxton THAT Report Number GM-04-26-C04 Canada Emergency Wage Subsidy Update be received as information.

Carried

18. Next Meeting - May 24, 2024 at 9:30 a.m.

19. Adjourn

The meeting was adjourned at 11:21 a.m..

24-80 **Moved By** Brian Coleman **Seconded By** Pam Wolf

THAT the General Membership Meeting be adjourned.

Carried

Secretary-Treasurer

From: Michael Melvin

Sent: Thursday, May 9, 2024 9:56 AM To: <u>Tim.Louis@parl.gc.ca</u>; <u>KRedman@regionofwaterloo.ca</u>; <u>grca@grandriver.ca</u>; <u>chriswhite1@cogeco.ca</u>; <u>sshantz@regionofwaterloo.ca</u> Subject: MZO Application by the City of Waterloo

Good morning Mr. Louis, Ms. Redman, Ms. Shantz and members of the Grand River Conservation Authority,

I am writing with concern about actions that the City of Waterloo is trying to make with respect to a city-owned property at 2025 University Avenue in Waterloo.

Their notice can be found here:

https://www.waterloo.ca/Modules/News/index.aspx?feedId=0d868655-ba17-4efa-988b-1951530c7aec&newsId=d30267a1-21d3-42f5-9893-17e1f8406dc0

As residents of Country Squire Road, we are most affected by this, and several of us attended the meeting last night. The notice and meeting were all done within 2 weeks, which left several members of our community unable to attend, and it is clear that the path here is to rush any zoning changes through using an MZO to limit any objection to the project. As residents of Woolwich township, while we may object, we really have no voice since we are not residents of the city.

It also was clear that the location was chosen not only because it is city-owned property, but because it is not near other (built) residential areas (the Millenium Road project is still in the planning stages) and objections from outside of the city have little weight when they are going to use an MZO to change the zoning and plan this project. The intention at this point as per last night's meeting are to have a plan and decision before the end of 2024, with shovels in the ground in 2025.

We have concerns as the property is being portrayed as an open field, when in fact it is a wetland, and affects our water sources. This property is 8 feet below grade in some areas and would require hundreds or loads of fill to replace the wetland area, which has the potential of leeching into our water. Many of us one Country Squire are still on well services. It was asked several times by many persons as to whether or not an

environmental assessment would be done, and the answer was that it was not required for an MZO. When asked if they would perform one regardless because of the impact on our water on the street, the answer was: **it is not required**.

For a location like this that is literally bounded by the Township, we fail to understand how using an MZO to bypass any involvement by the Region or the Township residents is anything but trying to ram something through without resistance from an environmental perspective or other objections from residents of the Township, Region and the riding which you represent.

To be clear: every single one of us on Country Squire Road understand the housing crisis and we support anyone trying to aid in its resolution. Our concern is that this project, while good intentioned, it involves the use of land that is not suitable from an environmental perspective, or logistical perspective regarding amenities and services. While we have concerns with the Millenium project, at least that is something that is not being rushed and bypassing what should be a process that involves more than one municipal entity. And we will continue to work with the city as it goes through normal channels.

I would like to discuss this more, and do not want to write an entire novel at this point, and am willing to take the time with each of you either individually, or as a group, to figure out a solution to something that appears to be moving quickly to avoid objection. I am certain that other members of our community would also like to be involved, but from a logistical point of view if one person needs to spearhead this, I guess I am that person.

Please feel free to contact me via this email, or I can also be reached by phone, however I cannot always guarantee accepting calls due to the nature of my work.

Thanks in advance for your consideration. I hope you understand the timeliness of any discussions.

Sincerely,

Michael Melvin

Grand River Conservation Authority

Report number: GM-05-24-45

Date: May 24, 2024

To: Members of the Grand River Conservation Authority

Subject: Chair's Report of the Audit Committee

Recommendation:

THAT the Report of the Audit Committee be received as information.

Summary:

Not applicable.

Report:

The Audit Committee met on April 26, 2024, to discuss a staff report regarding a special audit required for the Source Protection Planning Program.

The Committee discussed the special audit report, noting that this audit relates to a special program area that the Province currently funds, and as such the Board and Audit Committee do not hold the approval authority for the financials. The audit serves to attest to the accuracy of the financial figures submitted to the province as part of the end of contract reporting requirements.

The Audit Committee Terms of Reference (TOR) were also circulated, and the Chair noted that a full review of the TOR should be conducted before the next meeting. The amendments will be reviewed at the November Audit Committee meeting.

The Committee passed the following resolution:

AUD-24-10

Moved By Brian Coleman

Seconded By Susan Foxton

THAT the Audit Committee accept the Special Audit Report and the Financial Report to be submitted to the Ministry of Environment, Conservation, and Parks;

AND THAT the Special Audit Report and Financial Report be forwarded to the General Membership to be received as information.

Carried

Financial Implications:

Not applicable.

Other Department Considerations:

Not applicable.

Submitted by:

John Challinor II, Chair GRCA Audit Committee

Grand River Conservation Authority

Report number: AUD-04-24-01

Date: April 26, 2024

To: Members of the Audit Committee

Subject: Source Protection Program – Special Audit Requirement

Recommendation:

To be determined following discussion with Audit Committee.

Summary:

The Ministry of Environment, Conservation and Parks (MECP) added an audit requirement to the source projection program contract for the two years ending March 31, 2024. We anticipate that this will be a requirement of future contracts as well. The special audit requires an audit of the financial information submitted as part of overall reporting to the ministry for the Source Protection Program (SPP) and is due April 26, 2024. A financial report has always been required by April 30th each year and has not been forwarded to the Board in the past.

This audit requirement first arose as per Section F.5.6 of the most recent contract with MECP for the two years ended March 31, 2024.

Extract from contract:

F.5.6 Final Report. The Final Report will set out:

(j) audited segmented financial information for all project expenditures

The Terms of Reference for the Audit Committee do not specifically speak to a board process for a 'special audit'.

The options for board involvement are:

- 1) Have the Audit Committee accept the special audit report and financial report to be submitted to the MECP on April 26, 2024 and provide it to the General Membership at the May Board meeting as an 'information report'
- 2) Have the Audit Committee accept the special audit report and financial report to be submitted to MECP (financial report to MECP will have been submitted to ministry by end of April as outlined in the contract), recommend approval to the general membership, and present it to the General Membership for approval at the May Board meeting.

The other discussion required is if these reports should go to the GRCA board or the Grand River Source Protection Authority or both.

Report:

The MECP added an audit requirement to the source projection program contract for the two years ending March 31, 2024. The special audit requires an audit of the financial information submitted as part of overall reporting for the Source Protection Program (SPP).

The Terms of Reference for the Audit Committee do not specifically speak to a board process for 'special audits'.

For Discussion:

Item #1:

The options for board involvement in the Special Audit process are:

- 1) Have the Audit Committee accept the special audit report and financial report to be submitted to the MECP on April 26, 2024 and provide it to the General Membership at the May Board meeting as an 'information report'
- Have the Audit Committee accept the special audit report and financial report to be submitted to MECP(financial report to MECP will be submitted to ministry on April 26, 2024 as outlined in the contract), recommend approval to the general membership, and present it to the General Membership for approval at the May Board meeting.

Going forward, an option for consideration for future Special Audits is to have the Board accept the special audit report and financial report to ministry as 'for information' in the month following submission of the final report to the ministry.

Consideration should be given to cost of added work for the auditor (i.e. attending audit committee meeting) and the tight reporting timelines. The final report is due to the ministry less than 30 days following the end of the contract. The contract ends March 31 and the report is typically due before the end of April which doesn't allow adequate time for completing the financial reporting and having an external audit conducted in time for approval at the April board meeting.

Staff recommendation:

Given the costs, tight reporting timelines, and the fact that the reports do not contain estimates or other subjective information, staff recommend that both the financial report and the special audit report go to the board for information in the month following submission of the final report to MECP.

The financial report could be submitted to the MECP as stated in the contract, namely by the end of April. The financial report and audit report could be presented to the Audit Committee in mid-May, and then presented to the Board at the end of May. Both could be presented 'for information' without approvals required. Additionally, it is recommended that the auditor not be required to be present at an Audit Committee meeting for the purposes of this special audit.

Going forward, if it is determined that the audit report should go to the audit committee, an established meeting date in mid-May would allow more time for the audit and preparation of the audit report and committee meeting agenda.

Item #2:

The other discussion required is whether these reports should go to the GRCA board or the Grand River Source Protection Authority or both.

Staff recommendation:

Staff recommend that all reporting go to the GRCA Board as the SPP budget/actuals flow through GRCA financial reporting.

The following additional reports are attached:

- Draft KPMG Special Audit Report
- Financial Progress Report for the two years ending March 31, 2024 (to Ministry)
- Audit Committee Terms of Reference

The Audit Committee Terms of Reference can be updated to reflect any decisions made pertaining to Special Audits, as applicable.

Financial Implications:

The MECP capped the eligible audit expense at \$10,000 for the contract ending March 31, 2024. They have indicated that they may limit the audit expense for the next contract to \$5,000 and it will be a three-year contract. A special audit is only required at the end of the contract. The fee for this audit will be \$10,000 plus HST. The fee for subsequent audits is anticipated to be less, given that the audit report has been created and testing methods established.

Other Department Considerations:

None.

Prepared by:

Approved by:

Sonja Radoja Manager Corporate Services Karen Armstrong Deputy CAO/Secretary-Treasurer



KPMG LLP 120 Victoria Street South Suite 600 Kitchener, ON N2G 0E1 Canada Telephone 519 747 8800 Fax 519 747 8811

INDEPENDENT AUDITOR'S REPORT

To Board of Directors of Grand River Conservation Authority and the Ontario Ministry of the Environment, Conservation and Parks:

Opinion

We have audited the accompanying Statement of Expenditures of the Drinking Water Source Protection Program of Grand River Conservation Authority (the "Authority") for the period from April 1, 2022 to March 31, 2024, including a summary of significant accounting policies and other explanatory information (Hereinafter referred to as the "Statement").

In our opinion, the accompanying Statement is prepared, in all material respects, in accordance with the financial reporting provisions of the Drinking Water Source Protection 2022-24 Ontario Transfer Payment Agreement dated April 1, 2022, between the Authority and the Ontario Ministry of the Environment, Conservation and Parks (the Province of Ontario).

Basis for Opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the "Auditor's Responsibilities for the Audit of the Statement" section of our auditor's report.

We are independent of the Authority in accordance with the ethical requirements that are relevant to our audit of the Statement in Canada and we have fulfilled our other ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Emphasis of Matter – Financial Reporting Framework

We draw attention to Note 2 in the Statement, which describes the applicable financial reporting framework and the purpose of the Statement.

As a result, the Statement may not be suitable for another purpose.

Our opinion is not modified in respect of this matter.



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Responsibilities of Management and Those Charged with Governance for the Statement

Management is responsible for the preparation of the Statement in accordance with financial reporting provisions of the Drinking Water Source Protection 2022-24 Ontario Transfer Payment Agreement dated April 1, 2022, between the Authority and the Ontario Ministry of the Environment, Conservation and Parks, and for such internal control as management determines is necessary to enable the preparation of a statement that is free from material misstatement, whether due to fraud or error.

Those charged with governance are responsible for overseeing the Authority's financial reporting process.

Auditor's Responsibilities for the Audit of the Statement

Our objectives are to obtain reasonable assurance about whether the Statement as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the Statement.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit.

We also:

• Identify and assess the risks of material misstatement of the Statement, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion.

The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

• Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Hospital's internal control.



Page 3

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Chartered Professional Accountants, Licensed Public Accountants

Kitchener, Canada

DRAFT

GRAND RIVER CONSERVATION AUTHORITY

Drinking Water Source Protection Program Statement of Expenditures

Period from April 1, 2022 to March 31, 2024

Expenditures

D.1 Staffing:

Program Manager	\$ 264,098
Program Coordinator	206,606
Technical support	237,172
Data Management	164,000
General Managers	16,118
AODA Support	21,332
	909,326
D.2 Non-staffing:	
Services	12,789
Consultants	177,202
Travel and hospitality	64
Other	207,849
	397,904
Total expenditures	\$ 1,307,230

See accompanying notes to Statement of Expenditures

GRAND RIVER CONSERVATION AUTHORITY

Drinking Water Source Protection Program Notes to Statement of Expenditures

Period from April 1, 2022 to March 31, 2024

1. Project Description:

Grand River Conservation Authority signed an agreement with the Ontario Ministry of the Environment, Conservation and Parks (the Province of Ontario) to support the Authority's to fulfill their responsibilities under the Act and play a coordinating role in the updating of assessment reports and source protection plans as needed (the "Program"). The Statement presents the eligible expenditures for this Program. Under the agreement, the Ontario Ministry of the Environment, Conservation and Parks will provide a maximum \$1,314,855 cash contribution to support the Program.

2. Basis of accounting:

The Statement is prepared in accordance with the financial reporting provisions of the Drinking Water Source Protection 2022-24 Ontario Transfer Payment Agreement, dated April 1, 2022.

3. Significant accounting policies:

(a) Expenditures:

Expenditures are eligible under the projects if they were incurred in the period and are directly related to the completion of the Project.

(b) Use of estimates:

The preparation of the Statement requires management to make estimates and assumptions that affect the reported amounts of expenditures during the period. Actual results could differ from those estimates.

Conservation Authorty: Grand River Conservation Authority

Recipients are required to provide a final accounting of all Project expenditures to date signed by the Chief Financial Officer, the Board Chair or equivalent, if applicable, or as otherwise agreed to by the Province confirming actual Project expenditures and providing an explanation for any variances from the Budget.

I certify that the information provided in this Financial Progress Report reflects actual expenditures up to March 31, 2024

Signature

Please insert rows under each cost category as they appear in your 2022-24 DWSP Transfer Payment Agreement.

Samantha Lawson, Chief Administrative Officer

D.1 Staffing (Please list approved project team)	Total Approved FTE (e.g. 1.0)	Total Approved Budget (\$)	Actuals (Spent to Date)	Projected Difference (DWSP Program Savings) negative = CA over-expenditure postive = CA under-expenditure	Provide Explanation for Unspent Funds (including savings due to COVID-19)
Program Manager	1.00	\$298,235.8300	\$264,097.37	\$34,138.46	Staff turnover (~2 month gap in staffing)
Program Coordinator	1.00	\$212,132.0000	\$206,606.19	\$5,525.81	Staff turnover (minimal impact on budget)
Technical Support	1.30	\$294,331.0800	\$237,172.15	\$57,158.93	Staff turnover (6+ month gap in staffing)
Data Management	0.90	\$166,541.2600	\$164,000.13	\$2,541.13	
General Managers	0.10	\$33,913.2000	\$16,118.21		Reduced need for GMs to participate outside of LERMC meetings. No in-person meetings held to-date.
AODA Support	0.35	\$21,112.5600	\$21,332.05	-\$219.49	
	4.65	\$1,026,265.9300	\$909,326.10	\$116,939.83	

D.2 Budget Category: Non-Staff Budget (Please add/delete rows as needed to reflect the terms of your agreement)	Total Approved Budget (\$)	Actuals (Spent to Date)	Projected Difference (DWSP Program Savings) negative = CA over-expenditure postive = CA under-expenditure	Provide Explanation for Unspent Funds (including savings due to COVID-19)		
Services						
SPC member replacement advertisment	\$3,000.0000	\$0.00	\$3,000.00	Fewer vacancies than projected. Able to fill by advertising online only.		
Public Consultation (C.3.13) - Newspaper Advertising	\$13,300.0000	\$2,789.05	\$10,510.95	Consultation timeline delayed for multiple amendments/updates		
Audit costs (F.5.6.j)	\$10,000.0000	\$10,000.00	\$0.00			
Consultants	onsultants					
Lura Facilitation services for 2 Community Liaison Group engagement sessions (C.	\$10,000.0000	\$0.00	\$10,000.00	Awaiting early engagement comments before returning to CLG		
Wellington County Tier 3 Water Budget data review and data preparation for update	\$50,000.0000	\$50,410.89	-\$410.89			
Wellington County transport pathway water well data review and analysis	\$20,000.0000	\$19,993.80	\$6.20			
Wellington County mapping updates for impervious surfaces, managed lands and li	\$10,000.0000	\$12,157.78	-\$2,157.78			
Municipality of Bayham monitoring and analysis of nitrate as it pertains to the issue	\$75,000.0000	\$76,320.00	-\$1,320.00			
Welling County Source Protection Communications Plan education and outreach m	\$10,000.0000	\$9,160.58	\$839.42			
Education and outreach for well owners for Best Practices for Source Water Protect	\$9,000.0000	\$9,158.40	-\$158.40			
Wellington County climate change assessment for inclusion in S.36 Source Protecti	\$20,000.0000	\$0.00	\$20,000.00	Project delayed		
Travel and Hospitality						

2022-24 DWSP Financial Progress Report Reporting Period: April 1, 2022 to March 31, 2024

Staff transportation costs associated with completion of tasks in C.3	\$2,965.6000	\$64.40	\$2,901.20	
Other				
GGET CLG Meeting Venue Rental (C.3.7)	\$540.0000	\$0.00		Awaiting early engagement comments before returning to CLG
Public Consultation (C.3.13) - Propoerty notifications, meeting venue rental, printing	\$6,385.0000	\$0.00	\$6,385.00	Larger s.34/s.36 consultations delayed. Smaller consultations completed in-house (no cost)
SPC Per Diem	\$27,675.0000	\$22,536.29	\$5,138.71	
SPC Travel	\$4,830.0000	\$1,206.72	\$3,623.28	In person/hybrid meetings began September 2023
IWG Chair Per Diem	\$4,000.0000	\$2,240.97	\$1,759.03	Fewer meeting in 2022-23 due to staff transition
SPC Sector Outreach (\$320/yr)	\$640.0000	\$0.00	\$640.00	
Administrative expenses and support services	\$205,253.1900	\$181,865.22	\$23,387.97	Reduced admin costs direct result of gap in staffing
	\$482,588.7900	\$397,904.10	\$84,684.69	

Total Approved Budget	Actuals (Spent to Date)	Projected Difference (DWSP Program Savings) negative = CA over-expenditure postive = CA under-expenditure	Interest earned to date on funds provided	
\$1,508,854.7200	\$1,307,230.20	\$201,624.52		\$0.00

Grand River Conservation Authority

Report number: GM-05-24-45

Date: May 24, 2024

To: Members of the Grand River Conservation Authority

Subject: Cash and Investment Status – April 2024

Recommendation:

THAT Report Number GM-05-24-45 – Cash and Investment Status – April 2024 be received as information.

Summary:

The cash position including Notes Receivable of the Grand River Conservation Authority as at April 30, 2024 was \$59,362,417 with outstanding cheques written in the amount of \$ 136,446.

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 April 30,2024

				Interest
BANK ACCOUNTS	Location	Туре	Amount	Rate
	CIBC	Current Account	10,163,275	5.40%
	RBC	Current Account	147,541	nil
	Wood Gundy	Current Account	0	nil
	CIBC - SPP Holding	Current Account	388,929	5.40%
	TOTAL CASH - CURREN	IT ACCOUNT	10,699,745	

				Face Value Interest	Yield	2024 Total Interest Earned/
STMENT Date Invested	Location	Туре	Amount	Rate	Rate Date of Maturity	Accrued
	CIBC Renaissance	High Interest Savings Account	7,822,128	4.55%	4.55% not applicable	427,229
	CIBC High Interest	High Interest Savings Account	5,099,102	4.55%	4.55% not applicable	276,574
	One Investment Savings	High Interest Savings Account	4,735,442	5.465%	5.465% not applicable	323,402
October 23, 2019	9 Cdn Western Bank	Bond	2,010,000	2.800%	2.78% September 6, 2024	33,073
January 16, 2020) Cdn Western Bank	Bond	3,000,000	2.597%	2.45% September 6, 2024	50,061
September 15, 2	0 Cdn Western Bank	Bond	1,500,000	2.597%	1.21% September 6, 2024	12,570
September 23, 2	Province of Ontario	Bond	2,300,000	1.230%	1.23% December 2, 2026	27,156
September 23, 2	0 ManuLife Financial	Bond	2,000,000	2.237%	1.34% May 12, 2030, call date 2025	37,326
December 14, 20	CIBC	Bond	4,100,000	3.300%	4.36% May 26, 2025	96,320
December 14, 20	Bank of Montreal	Bond	4,096,000	2.700%	4.59% September 11, 2024	27,230
June 28, 2023	CIBC	Non-Redeemable GIC	4,000,000	5.250%	5.25% June 28, 2024	102,986
December 7,202	3 National Bank	Non-Redeemable GIC	2,000,000	4.700%	4.70% December 7,2026	94,000
December 21,20	2 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

\$1,888,498

TOTAL INVESTMENTS	48,662,672
TOTAL CASH AND INVESTMENTS	\$59,362,417
* Reserve Balance at December 31st, 2023	52,678,473

Investm	ent By Institution
	% of Total Portfolio
C.I.B.C.	47%
Bank of Montreal	8%
Cdn Western Bank	13%
ManuLife Financial Bank	4%
One Investment Program	10%
Province of Ontario	5%
Laurenian Bank of Canada	2%
National Bank of Canada	8%
HSBC Bank of Canada	2%_
	100%

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

Grand River Conservation Authority

Report number: GM-05-24-49

Date: May 24, 2024

To: Members of the Grand River Conservation Authority

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

Recommendation:

THAT the Financial Summary for the period ending April 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 \$79,500 at year-end is anticipated.

Report:

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

- A. Self-Generated Revenue increased by \$10,000
 - Resource Planning revenue decreased by \$30,000 due to decreased volume of permit fees and solicitor enquiries.
 - Burford Tree Nursery and Planting Services revenue increased by \$40,000 as a result of increased tree planting activity.

B. Operating Expenses decreased by \$69,500

- Insurance expenditure net decrease of \$46,500 as a result of the premiums that came into effect on April 1, 2024 (partial year impact in 2024).
- Resource Planning consulting expense increased by \$65,000 in support of engineering plan review.
- General Operating (Mandatory) communications compensation and benefits expenses decreased by \$55,000 due to vacancy savings.
- Administrative Support (Category 3) communications compensation and benefits expenses decreased by \$33,000 due to vacancy savings.

Financial Implications:

The activity summarized will result in a \$79,500 surplus as at December 31, 2024.

Other Department Considerations:

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

Prepared	by:
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Approved by:

Kayleigh Keighan	Karen Armstrong
Financial Controller	Deputy CAO/Secretary-Treasurer

GRAND RIVER CONSERVATION AUTHORITY FINANCIAL SUMMARY - FORECAST

General Membership - May 24, 2024

FORECA	AST - MARCH 31, 2024 - NET RESULT			\$0
	CHANGES - April 2024			
P&S #3	Water Control Structures	(\$2,000)	Insurance Expense increase	(\$2,000)
P&S #4	Resource Planning	(\$30,000) (\$65,000)	Self Generated Revenue decrease - permits and enquiries Other Operating Expenses increase - consulting	(\$95,000)
P&S #5	Conservation Lands Management	(\$2,000)	Insurance Expense increase	(\$2,000)
P&S #7	General Operating Expenses-Mandatory	\$55,000 \$47,500	Compensation and Benefits (Communications) Expense decrease (vacancy savings) Insurance Expense decrease	\$102,500
P&S #9	Burford Tree Nursery & Planting Services	\$40,000	Self Generated - Tree Planting Revenue increase	\$40,000
P&S #15	Administrative Support-Category 3	\$33,000 \$3,000	Compensation and Benefits (Communications) Expense decrease (vacancy savings) Insurance Expense decrease	\$36,000
FORECA	AST - APRIL 30, 2024 - NET RESULT			\$79,500

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

4								
	Category		Budget 2023	Budget 2024	YTD Actual	Previous Forecast	Current Forecast	Forecast Change
REVENUE								
Municipal								ŗ
Municipal Apportionment	Category 1	various	11,976,000	12,275,000	4,091,666	12,275,000	12,275,000	- '
Memorandums of Understanding Apportionment	Category 2	various	992,000	1,017,000	339,000	1,017,000	1,017,000	- '
Other	Category 2 & 3	8	850,000	940,000	807,170	940,000	940,000	-
Total Municipal	54.5gory <u>-</u> 5.5	č	13,818,000	14,232,000	5,237,836	14,232,000	14,232,000	-
Government Grants								ļ
MNRF Transfer Payments	Category 1	various	449,688	449,688	_	449,688	449,688	/
Source Protection Program-Provincial	Category 1 Category 1	various 6	449,088 640,000	449,688 834,000	- 373,675	449,688 834,000	449,688 834,000	- /
Other Provincial	Category 1 Category 1	o various	737,500	737,500	373,075 598,222	737,500	737,500	
Other Provincial	Category 1 Category 2	various 8	101,000	130,000	598,222 168,286	130,000	130,000	- ,
Other Provincial	Category 2 Category 3	8 10	- 30,000	130,000	71,409	65,000	65,000	
Other Provincial Federal		various	30,000 40,000	155,000	308,566	65,000 238,000	65,000 238,000	- ,
Federal Total Government Grants	Category 1,2,3	Various	<u> </u>	2,406,188	308,566 1,520,158	238,000 2,454,188	238,000 2,454,188	/
Total Government Grants			1,037,100	2,400,100	1,320,130	2,434,100	2,434,100	-
Self Generated								
User Fees and Sales								I
Resource Planning	Category 1	4	1,144,000	994,000	365,719	994,000	964,000	(30,000)
Burford Operations & Planting Services	Category 3	9	580,000	680,000	702,971	680,000	720,000	40,000
Conservation Lands Income	Category 3	14	71,000	71,000	3,167	71,000	71,000	- '
Conservation Lands Income	Category 1	5	15,000	15,000	49,200	50,000	50,000	- '
Conservation Areas User Fees	Category 3	14	10,000,000	10,700,000	2,064,387	10,700,000	10,700,000	- '
Environmental Education	Category 3	11	500,000	600,000	231,945	600,000	600,000	-
Property Rentals	Category 3	12	2,981,000	3,038,000	1,649,235	3,038,000	3,038,000	-
Hydro Generation	Category 3	13	580,000	580,000	176,933	580,000	580,000	-
Grand River Conservation Foundation	Category 1,2,3	various	27,000	662,000	-	662,000	662,000	-
Donations	Category 1,2,3	various	-	-	53,198	35,000	35,000	-
Investment Income	General Operating	7	1,350,000	2,200,000	548,476	2,200,000	2,200,000	-
Miscellaneous Income	various	various	-	-	69,289	-	-	-
Total Self-Generated Revenue			17,248,000	19,540,000	5,914,520	19,610,000	19,620,000	10,000
TOTAL REVENUE			32,963,188	36,178,188	12,672,514	36,296,188	36,306,188	10,000
			<u> </u>					

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

	Category		Budget 2023	Budget 2024	YTD Actual	Previous Forecast	Current Forecast	Forecast Change
EXPENSES	Culoge, j					1010000	1010000	onange
OPERATING								
Watershed Management	Category 1	1	1,276,000	1,146,100	293,030	1,146,100	1,146,100	_ /
Flood Forecasting and Warning	Category 1	2	895,000	911,000	214,718	911,000	911,000	_ /
Water Control Structures	Category 1	3	2,143,200	2,128,700	603,622	2,128,700	2,130,700	2,000
Resource Planning	Category 1	4	2,551,800	2,679.600	729,580	2,679.600	2,744,600	65,000
Conservation Lands Management	Category 1	5	2,954,600	2,871,900	643,592	2,871,900	2,873,900	2,000
Source Protection Program	Category 1	6	640,000	834,000	373,675	834,000	834,000	-
General Operating Expenses	General Operating	7	3,495,788	4,267,714	1,347,690	4,267,714	4,165,214	(102,500)
Watershed Services	Category 2	8	1,043,000	1,068,000	219,721	1,068,000	1,068,000	-
Burford Operations & Planting Services	Category 2 Category 3	9	867,300	992,900	388,475	992,900	992,900	/
Conservation Services	Category 3	9 10	81,200	82,200	2.162	82,200	82,200	/
Environmental Education	Category 3	10	775,100	912,000	253,054	912,000	912,000	
Property Rentals	Category 3	12	1,095,200	1,109,200	253,054 187,574	1,109,200	1,109,200	
Hydro Production	Category 3	12	95,500	95,500	50,612	95,500	95,500	
Conservation Areas	Category 3	13	9,037,000	95,500 9,782,000	1,095,748	9,782,000	95,500 9,782,000	
Administrative Support	Category 3	14	9,037,000 1,198,000	1,217,400	414,334	9,782,000 1,217,400	9,782,000 1,181,400	(36,000)
Total Operating Expenses	Calegory 5	10	28,148,688	30,098,214	6,817,587	30,098,214	30,028,714	(36,000)
MAJOR MAINTENANCE & EQUIPMENT			20, 140,000	30,030,217	0,017,007	30,030,217	30,020,117	(03,000)
Watershed Management	Category 1	1	110,000	110,000	15,261	110,000	110,000	_
Flood Forecasting and Warning	Category 1 Category 1	2	190,000	190,000	15,261	190,000	190,000	- 1
Water Control Structures		2 3	1,500,000	1,500,000	15,164 507,966	1,500,000	1,500,000	-
Vater Control Structures Conservation Areas	Category 1	3 14	2,000,000	1,500,000 2,000,000	507,966 558,405	1,500,000 2,000,000		-
•	Category 3				,		2,000,000	-
Information Systems	General Operating	16 16	290,000	459,000	721,608	459,000	459,000	-
Motor Pool	General Operating	10	14,000	415,000	640,939	415,000	415,000	!
Total Major Maintenance & Equipment Expenses SPECIAL PROJECTS			4,104,000	4,674,000	2,459,343	4,674,000	4,674,000	-
Flood Forecasting and Warning	Category 1	2	-	250,000	-	250,000	250,000	_
Conservation Lands Management	Category 1	5	-	100,000	4,234	100,000	100,000	-
Watershed Services	Category 2	8	800,000	1,095,000	483,927	1,095,000	1,095,000	-
Conservation Services	Category 3	10	40,000	185,000	101,764	195,000	195,000	-
Environmental Education	Category 3	11	-	500,000	7,521	500,000	500,000	-
Total Special Project Expenses			840,000	2,130,000	597,446	2,140,000	2,140,000	
TOTAL EXPENSES			33,092,688	36,902,214	9,874,376	36,912,214	36,842,714	(69,500)
Gross Surplus/(Deficit)			(129,500)	(724,026)	2,798,138	(616,026)	(536,526)	79,500
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	78,500	78,500	
NET SURPLUS			-	-	3,535,664	-	79,500	79,500



Grand River Conservation Authority Minutes – CA Act Regulations Committee

Date:	May 2, 2024
Time:	3:30 p.m.
Location:	GRCA Zoom Virtual Meeting
Members Present:	John Challinor II, Susan Foxton, David Miller, Shawn Watters, Chris White
Staff	Samantha Lawson, Karen Armstrong, Beth Brown, Melissa Larion, Sonja
	Radoja, Eowyn Spencer

1. Call to Order

The Chair called the meeting to order at 3:32 p.m.

2. Certification of Quorum

Quorum was confirmed with all members present.

3. Review of Agenda

Moved by: John Challinor **Seconded by:** David Miller THAT the agenda for the Conservation Authorities Act Regulations Committee Meeting be approved as circulated.

Carried.

4. Declarations of Pecuniary Interest None.

5. Minutes of the Previous Meeting

Moved by: Sue Foxton

Seconded by: Shawn Watters

THAT the minutes of the previous Conservation Authorities Act Regulations Committee Meeting held on November 8, 2023 be approved as circulated.

Carried.

6. Reports:

- 6.1. GM-05-24-43 ERO Posting 019-8462 Review of proposed policies for a new provincial planning policy instrument
 - M.Larion provided a detailed overview of GRCA comments to be submitted on the provincial posting for the review of proposed policies for a new provincial planning mechanism.

- It was noted that this posting is a follow-up from a consultation last year, which the GRCA provided comments on as well. For this submission, staff have reiterated previously discussed comments and provided further input with respect to how the comments have and have not been addressed in the most recent iteration of the policy instrument.
- Key highlights covered the addition of Natural Heritage policies which were initially removed but since added back in, and additional clarification around conservation authorities' role in Natural Hazard Management. It now requires the collaboration between CAs and municipalities in identifying hazardous lands and sites.
- The main concern identified by staff is the lack of requirements around subwatershed planning for urban boundary expansions. The existing Growth Plan has significant requirements around subwatershed planning to support expansions of the urban boundary and to support major development projects. These have essentially been removed. This report submission outlines GRCA's concerns around that.
- S.Foxton sought clarification on the impacts of these changes and the role of the Minister in development approvals. M.Larion confirmed that this policy document is used as provincial planning guidance as opposed to Minister orders. S.Lawson added that this policy identifies areas where conservation authorities are included in municipal planning and provides provisions that guide decision-making.
- D.Miller inquired about the specified 'large and fast-growing municipalities', and M.Larion noted there is a schedule included in the proposed provincial planning statement that lists the applicable municipalities.
- D.Miller also inquired if Conservation Ontario is submitting comments, and the Chair confirmed they will be sharing similar concerns as this policy will affect all conservation authorities.

Moved by: John Challinor

Seconded by: Shawn Watters

THAT Report Number GM-05-24-24 – ERO Posting 019-8462 - Review of proposed policies for a new provincial planning policy instrument be approved and submitted to the Environmental Registry of Ontario;

AND THAT Report Number GM-05-24-24 – ERO Posting 019-8462 - Review of proposed policies for a new provincial planning policy instrument be circulated to the General Membership at the May 24, 2024 meeting to be received as information.

Carried.

7. Other Business

None.

8. Next Meeting – At the Call of the Chair

9. Adjourn

The meeting was adjourned at 3:43 p.m.

Moved by: John Challinor **Seconded by:** Shawn Watters THAT the Ad-hoc Committee meeting be adjourned.

Grand River Conservation Authority

Report number: GM-05-24-43

Date: May 2, 2024

To: Ad-hoc Conservation Authorities Act Regulations Committee

Subject: ERO Posting 019-8462 – Review of proposed policies for a new provincial planning policy instrument

Recommendation:

THAT Report Number GM-05-24-24 – ERO Posting 019-8462 - Review of proposed policies for a new provincial planning policy instrument be approved and submitted to the Environmental Registry of Ontario;

AND THAT Report Number GM-05-24-24 – ERO Posting 019-8462 - Review of proposed policies for a new provincial planning policy instrument be circulated to the General Membership at the May 24, 2024 meeting to be received as information.

Summary:

On April 12, 2024, the Ministry of Municipal Affairs and Housing (MMAH) released an updated proposed Provincial Policy Statement (PPS) on the Environmental Registry of Ontario (ERO) that incorporates feedback received through previous consultation completed in June 2023. The proposal outlines the province's plan to integrate the Provincial Policy Statement and A Place to Grow: Growth Plan for the Greater Golden Horseshoe into a single housing-focused province-wide land use planning policy document. If passed, the Growth Plan would be revoked in its entirety.

As outlined in Report GM-04-24-33, the deadline for submission of comments to the ERO is May 12th. Due to the commenting period timeline, staff were not able to present and receive approval of GRCA's comments from the General Membership. As such, the Board delegated approval of the comments to the Ad-hoc Conservation Authorities Act Regulations Committee on April 26, 2024.

Staff have reviewed the ERO posting and the revised draft PPS which provides a revised vision focused on "the building of more homes for all Ontarians" and incorporates a number of Growth Plan policies and definitions as well as some new policies. The updated version provides additional policies that further support increased intensification and promote a range and mix of housing options. The document includes some changes which are in line with GRCA's past recommendations such as a requirement to recognize natural heritage and water resource systems and features. However, the recommendation that watershed/subwatershed planning be required for large scale development planning such as settlement area boundary expansions was not incorporated.

The Grand River Conservation Authority (GRCA) recommends the following feedback be provided on the ERO posting:

 That the province includes a requirement for watershed/subwatershed planning to support all settlement area boundary expansions, secondary planning and other largescale planning projects (i.e., planning for potable water, stormwater, and wastewater systems).

Report:

On April 12, 2024, MMAH released an updated proposed PPS on the ERO (ERO Posting 019-8462) titled "Review of proposed policies for a new provincial planning policy instrument". This posting incorporates feedback received through a previous consultation completed in spring 2023. The proposal outlines the province's plan to integrate the Provincial Policy Statement and A Place to Grow: Growth Plan for the Greater Golden Horseshoe into a single housing-focused province-wide land use planning policy document. If passed, the Growth Plan would be revoked in its entirety. The draft PPS provides a revised vision focused on "the building of more homes for all Ontarians."

The GRCA provided comments during the initial consultation as outlined in Report GM-05-23-43. GRCA's previous recommendations are highlighted below accompanied by a discussion of how the comments were addressed in the updated version of the PPS.

Natural Heritage

• That the province, through their review of the natural heritage sections of the Provincial Policy Statement and Growth Plan continue to recognize the importance of natural heritage and water resource features (i.e., wetlands and watercourses) and systems.

Updated PPS

The updated PPS maintains the 2020 PPS requirements for the identification of natural heritage systems in central and southern Ontario municipalities and requires that provincially significant natural heritage features and areas be protected. This is also in keeping with the requirements of the Growth Plan.

The retention of these policies is particularly important given the changes in the role of conservation authorities in the protection of wetlands in the province. Through amendments to the Conservation Authorities (CA) Act over the last couple years, conservation authorities are prohibited from commenting on any natural heritage matters under various Acts (O. Reg 596/22), including the Planning Act. The regulated area around wetlands has recently changed (O. Reg 41/24) to 30 metres for all wetlands (formerly 120 metres for provincially significant wetlands or wetlands equal to or greater than 2 hectares) and the conservation of land test/decision criteria for permitting has been removed. As such, increased responsibility now lies with municipalities to lead the management and protection of natural heritage features.

Role of CAs in Natural Hazard Management

• That the province clarifies the roles of municipalities and conservation authorities in the identification and management of hazardous lands and hazardous sites.

Updated PPS

Updated wording has been added to the PPS which require municipalities to direct development outside of hazardous lands and sites in collaboration with conservation authorities.

Although roles have not been further clarified, the new requirement to collaborate with CAs is a positive step in acknowledging the need for municipalities and CAs to work together in natural hazard planning and management.

Watershed/Subwatershed Planning

 That the document includes a requirement for watershed/subwatershed planning to support settlement area boundary expansions, secondary planning, and other largescale planning projects (i.e., planning for potable water, stormwater, and wastewater systems).

Updated PPS

The new version requires municipalities to identify and protect water resources and features. It requires large and fast-growing municipalities and encourages others, to undertake watershed

planning in collaboration with conservation authorities. The previous version only <u>encouraged</u> watershed planning for <u>all</u> municipalities.

It also requires municipalities to plan for water and wastewater infrastructure, and waste management systems. Large and fast-growing municipalities are required to, and others encouraged to undertake watershed planning to inform planning for sewage and water services and stormwater management, including low impact development, and the protection, improvement or restoration of the quality and quantity of water.

GRCA's previous concern outlined in Report GM-05-23-43 remains. Staff recommend that an additional policy be added under Section 2.3.2 of the PPS to require subwatershed planning for new settlement areas and settlement area boundary expansions. Subwatershed planning is an important tool used to identify the most appropriate areas for new growth, including assessing alternative areas that avoid water resource and natural heritage systems as well as natural hazard areas that may be unsafe for development. This proactive approach to planning ultimately streamlines the development review process when Planning Act applications are submitted to municipalities. The result is a more seamless and less costly development application review process for applicants, municipalities and commenting agencies.

Financial Implications:

Not applicable.

Other Department Considerations:

Staff from Water Resources were consulted in the preparation of this report.

Prepared by:

Approved by:

Melissa Larion Supervisor of Planning and Regulations

Samantha Lawson Chief Administrative Officer

Beth Brown Manager of Planning and Regulations Services

Grand River Conservation Authority

Report number: GM-05-24-47

Date: May 24, 2024

To: General Membership of the Grand River Conservation Authority

Subject: Conformity and Housekeeping Update - GRCA's Policies for the Administration of Ontario Regulation 41/24

Recommendation:

THAT the Grand River Conservation Authority Policies for the Administration of the Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation - Ontario Regulation 150/06 last revised January 26, 2024 be revoked;

AND THAT the Grand River Conservation Authority Policies for the Administration of the Prohibited Activities, Exemptions and Permits Regulation – Ontario Regulation 41/24 included as Appendix B be approved and take effect on May 24, 2024.

Summary:

On February 16, 2024, the Province released decision notices to move ahead with legislative and regulatory changes under the *Conservation Authorities Act* (CA Act) to support Ontario's Housing Supply Action Plan. On April 1st, 2024, previously unproclaimed sections of the CA Act came into effect and GRCA's development regulation (Regulation 150/06) was replaced with Ontario Regulation 41/24. Report GM-03-24-27 provides an overview of the changes and necessary updates to existing Conservation Authority documents, policies and procedures in relation to the Grand River Conservation Authority's planning and compliance program. Amongst other implementation actions, a conformity review of policies for the administration of the Regulation has been completed and amendments proposed.

Report:

As outlined in Reports GM-11-22-88 and GM-12-22-105, the Grand River Conservation Authority (GRCA) provided comments on ERO Posting #109-6141 and ERO Posting #019-2927 regarding proposed legislative and regulatory updates impacting the regulation of development for the protection of people and property from natural hazards.

On February 16, 2024, the Province released decision notices to move ahead with legislative and regulatory changes under the CA Act to support Ontario's Housing Supply Action. Previously unproclaimed sections of the CA Act came into effect on April 1st and all individual conservation authority development regulations have been revoked. This included the GRCA's Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation (Ontario Regulation 150/06) which has been replaced with the Prohibited Activities, Exemptions and Permits Regulation (Ontario Regulation 41/24).

As outlined in Report GM-03-24-27, the proclamation of the new legislative and regulatory framework necessitates updates to existing Conservation Authority policies and procedures, including GRCA's Policies for the Administration of the Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation - Ontario Regulation 150/06. To afford time for a conformity review of the policies to be completed and to meet the April 1st deadline for implementation, an interim policy guidance document was approved by the General Membership on March 22, 2024 (Report GM-03-24-27).

Staff have identified the need to complete a comprehensive policy review and update of accompanying supporting materials, such as GRCA's 2005 "Environmental Impact Study Guidelines and Submission Standards for Wetlands" and the 2003 "Wetland Policy". While Conservation Ontario has provided interim guidelines which will assist with a comprehensive review, substantial work is anticipated and public consultation will be required. Therefore, staff have limited the review to a legislative and regulatory conformity exercise of existing GRCA permit implementation policies at this time. This will also allow additional time to consult with other conservation authorities and incorporate any implementation guidance from the Province if provided.

The following report provides an overview of key legislative and regulatory amendments considered in the conformity exercise, with details on proposed policy changes in Appendix A. The proposed policy document is attached as Appendix B.

One significant change to the policies is the removal of "conservation of land" and "pollution" as tests/criteria for making permitting decisions under the CA Act. This resulted in the removal of natural heritage-related considerations from the permit review and approval process. The amended CA Act and the new Regulation now focus on potential impacts to flooding, erosion, dynamic beach, unstable soil or bedrock resulting from development activities, ensuring public health and safety and reducing risks associated with the damage or destruction of property. The revised policies reflect this focus and will be used by staff in making decisions on permit applications made under the new Regulation. By following a consistent set of policies, applications can be reviewed and decisions made in an efficient, timely, and transparent manner.

As the proposed changes were generally limited to those required to implement the new legislative and regulatory framework which underwent public consultation by the Province, additional public consultation on the GRCA's proposed policy amendments was not completed.

Summary of Key Changes to Legislation

1. Definitions and regulation limits

- The term *development* has been replaced with *development activity*, but the definition has not changed.
- The regulated area adjacent to wetlands has changed to 30 metres for all wetlands (formerly 120 metres for provincially significant wetlands or wetlands equal to or greater than 2 hectares).
- The regulated area adjacent to floodplains has changed from "not to exceed 15 metres" to 15 metres (formerly 5 metres for engineered floodplains, no change for estimated or approximate floodplains 15 metres allowance).
- The definition of a *watercourse* has been amended to a *defined channel*, *having* a *bed and banks or sides* (formerly *an identifiable depression in the ground*).

2. Regulatory "tests" for permit approvals

- Existing decision criteria (tests) for a permit related to *pollution* and *conservation of land* have been removed. This necessitates removal of consideration of natural heritage/ecological impacts and related policies and terms. This change most significantly impacted the wetland and watercourse policies.
- New decision criteria (tests) have been added including consideration for impacts on unstable soil or bedrock, health or safety of persons, and damage or destruction of property.

3. Permit exceptions

• Several new development activities are now exempt in the Regulation from requiring a permit. The GRCA already exempted the majority of the listed activities, but new ones have been added including an exemption for non-habitable garage reconstruction.

4. Enforcement of the Regulation

• Maximum fines for development activity without a CA permit have increased.

Financial Implications:

No financial impacts are anticipated as a result of the policy amendments. Report GM-03-24-27 outlines the financial impact of the legislative and regulatory changes under the CA Act and Ontario Regulation 41/24.

Other Department Considerations:

Geomatics and Conservation Lands staff assisted with amendments to the policy document.

Prepared by:

Approved by:

Melissa Larion Supervisor of Planning and Regulations Samantha Lawson Chief Administrative Officer

Beth Brown Manager of Planning and Regulations Services

Summary of proposed changes to GRCA's Policies for the Administration of Ontario Regulation 150/06

Section	Proposed amendments
Title page	Change to the policy document and regulation name
Entire document	Replaced Ontario Regulation 150/06 with Ontario Regulation 41/24
	Replaced "development" with "development activity" where appropriate
	Missing text added, grammatical errors corrected, renaming of headings, improved formatting for AODA compliance, wording simplified
	Removal of text boxes, several dated figures and photos
	Removal of footnotes to make the document more screen reader friendly. Where needed, footnote information has been added to the body of the text or placed in the Definitions section
	Removal of natural heritage related terms such as "significant natural features", "ecological functions" and "aquatic habitats"
Introduction	Updated population and land base information
Prohibited Activities, Exemptions and Permits Regulation	Recent legislative and regulatory changes have been added
Areas Regulated	New map showing revised regulated areas (regulated area is now 30 metres from all wetlands)
Exceptions	Additional exceptions beyond what GRCA already exempted have been added including:
	 the reconstruction of a non-habitable garage with no basement, if the reconstruction does not exceed the existing footprint of the garage and does not allow for a change in the potential use of the garage to create a habitable space additional qualifiers added for non-habitable accessory buildings or structures, maintenance or repair of a driveway or private lane that is outside of a wetland or the maintenance or repair of a public road, provided that the driveway or road is not extended or widened and the elevation, bedding materials and existing culverts are not altered the installation, maintenance or repair of a pond for watering livestock that is not connected to or within a watercourse or wetland, within 15 metres of a wetland or a watercourse, and where no excavated material is deposited within a regulated area
Compliance	Costs and penalties associated with development activity without a Conservation Authority permit have been updated

Section	Proposed amendments
GRCA's Regulatory vs. Plan Review Function	A reference to Ontario Regulation 686/21: Mandatory Programs and Services has been added
Defining the Riverine Flooding Hazard	Reference to a 5-metre regulated area from engineered floodplains removed and replaced with a 15-metre regulated area from all floodplains
Wetlands and Areas of Interference	Area of interference changed from 120 metres around provincially significant wetlands and wetlands larger than 2 hectares to 30 metres around all wetlands
Development activity/interference within wetlands	Removed the following items for consideration when development is proposed within wetlands: Whether the wetland is:
	 is part of a Provincially Significant Wetland, is part of a Provincially or municipally designated natural heritage feature, a significant woodland, or hazard land, is a bog, fen, fish habitat, significant wildlife habitat, confirmed habitat for a provincially or regionally significant species as determined by the Ministry of Natural Resources and Forestry or as determined by the municipality, part of an ecologically functional corridor or linkage between larger wetlands or natural areas, part of a groundwater recharge area, or a groundwater discharge area associated with any of the above These limitations on when development activity is not permitted will be replaced with the following:
	 located within a floodplain [add: or a watercourse], there are no negative or adverse impacts on flooding and erosion, and hazards related to unstable soils are addressed. Add that development within 30 metres to a wetland may not have a negative or adverse impact on the wetland feature or hydrologic
Lake Erie Shoreline	functions. References to Shoreline Management Plan has been updated to reflect the most recent work done in 2020 to assess the shoreline hazards.

Section	Proposed amendments
Development activity – Lake Erie Shoreline Flooding or Erosion Hazard	References to "significant natural features" replaced with "wetlands"
	Requirement for protection works to be designed to create or restore aquatic habitats to the extent possible removed.
Policies for the Straightening, Changing, Diverting or Interfering with the Existing Channel of a River, Creek, Stream, or Watercourse	References to the "inhibition of fish passage" removed as a criterion for restricting development activity
	References to intrusions on "ecological functions" replaced with "morphology" (as this is directly related to flooding and erosion)
	"Significant natural features" replaced with "watercourses"
	References to "aquatic health and habitat" removed
	References to impacts on "thermal regime" replaced with "geomorphic regime"
	Added "there is no increase in flooding and erosion" to several policies
Definitions	"Development" replaced with "development activity" where appropriate
	Removed:
	"Conservation of land"
	"Ecological function"
	"Ecosystem"
	"Endangered species"
	"Pollution"
	"Natural features"
	"Significant natural features"
	"Significant wildlife habitat"
	"Thermal impact"
	Definition of "watercourse" updated
	Links updated and new Regulations added

Grand River Conservation Authority Policies for the Administration of the Prohibited Activities, Exemptions and Permits Regulation

Ontario Regulation 41/24

Approved: May 24, 2024 Resolution No.xxxx Effective May 24, 2024





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Policies for the Administration of the Prohibited Activities, Exemptions and Permits Regulation Ontario Regulation 41/24

1.0 Introduction

1.1 The Grand River Watershed

The Grand River *watershed* is located in southwestern Ontario. The Grand River and its major tributaries, the Speed, Eramosa, Nith and Conestogo Rivers drain an area of just over 6800 km² – the largest direct drainage basin to Lake Erie on the Canadian side of the border with the United States (Figure 1).

In 2021, approximately one million people resided within the Grand River watershed with 80% of them living in the cities of Kitchener, Waterloo, Cambridge, Guelph and Brantford. About 14% of the watershed is urban, 61% is rural and agricultural, while 26% per cent is *wetlands* and forests. The watershed represents a diverse area, ranging from intense agricultural production to large and rapidly densifying residential urban cores and expanding commercial and industrial areas.

Approximately 82% of the population relies on groundwater for water supply, while the remainder depends on surface water sources, mostly from the Grand River. The City of Brantford and the Six Nations of the Grand River Territory extract all their domestic water supply from the Grand River.

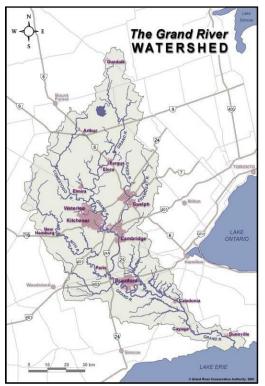


Figure 1. Grand River Watershed

According to the 2021 census, the Kitchener-Waterloo-Cambridge metropolitan area grew almost 10% between the years 2016-2021, surpassing the growth rate of 22 of the 25 largest municipalities in Canada. The Growth Plan for the Greater Golden Horseshoe (2020) anticipates watershed municipality populations to exceed 1.5 million people by 2051. As such, the wise management of our natural resources will be essential to ensure a sustainable and healthy watershed which continues to meet the ongoing needs of a growing population.

1.2 Role of the Grand River Conservation Authority

The *Conservation Authorities Act* was passed in 1946 by the Ontario government in response to severe flooding and erosion problems experienced throughout the province. This legislation provided terms of reference and guidelines for municipalities to voluntarily establish *watershed* partnerships for managing land and water resources.

The Grand River Conservation Authority (GRCA) has a long history. Formed in 1948, its governing body is comprised of 26 representatives appointed by 34 member municipalities. This board approves the GRCA budget and policies and

guides its activities. To fulfill its mandate, the GRCA works closely with all levels of government to enhance watershed health by coordinating and implementing a variety of programs and services with the goals to:

- facilitate watershed planning,
- enhance water quality,

Policies for the Administration of the Prohibited Activities, Exemptions and Permits Regulation Ontario Regulation 41/24

- maintain reliable water supply,
- reduce flood damages,
- protect natural areas and biodiversity,
- provide environmental education, and
- provide environmentally responsible outdoor recreational opportunities.

1.3 Prohibited Activities, Exemptions and Permits Regulation

The Conservation Authorities Act first empowered conservation authorities to make regulations to

prohibit filling in floodplains below the high-water mark in 1956. These powers were broadened in 1960 to prohibit or regulate the placing or dumping of *fill* in defined areas where, in the opinion of the conservation authority, the control of flooding, pollution or the conservation of land may be affected (R.S.O. 1960, c. 62, s. 20 (1)). In 1968, an amendment to the *Conservation Authorities Act* (Statutes of Ontario, 1968, c. 15) further extended the power of Conservation Authorities to prohibit or control construction and alteration to waterways, in addition to filling.



In 1998, the *Conservation Authorities Act* was changed as part of the *Red Tape Reduction Act* (Bill 25) to ensure that regulations under the Act were consistent across the province and complementary with contemporary provincial policies. To better reflect provincial direction and to strengthen protection of public safety and the environment, the *Conservation Authorities Act* (CA Act) was modified to enable conservation authorities to enact the Development, Interference with Wetlands and Alteration to Shorelines and Watercourses Regulation (Ontario Regulation 97/04) to replace the Fill, Construction and Alteration to Waterways Regulation (R.R.O. 1990, Regulation 149 as amended by Ontario Regulation 142/98). All applications for permission received after May 4, 2006, were processed subject to the provisions of the Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation.

Ontario Regulation 97/04 allowed conservation authorities to prevent or restrict development in areas where the control of flooding, erosion, dynamic beaches, pollution or the conservation of land may be affected. The regulation was intended to prevent the creation of new hazards or the aggravation of existing ones. The Minister of Natural Resources approved Ontario Regulation 150/06 for the GRCA, consistent with Ontario Regulation 97/04, on May 4, 2006. This regulation was entitled the Development, Interference with Wetlands and Alteration to Shorelines and Waterways Regulation. Under this regulation, permission was required to develop in or within the allowance to *river* or stream valleys, wetlands, shorelines or hazardous lands; alter a river, *creek*, stream or watercourse; or interfere with a wetland. The Conservation Authority could grant such permission if it could be demonstrated to the satisfaction of the conservation authority that the proposed work would not affect the control of flooding, erosion, dynamic beaches or pollution or the conservation of land.

In subsequent years, numerous amendments have been made to Section 28 of the CA Act and associated Regulations. Ontario Regulation 686/21, among other provisions, requires that an Authority shall provide programs and services to ensure that the Authority satisfies its duties, functions and responsibilities to administer and enforce the provisions of Parts VI and VII of the Act and any regulations made under those Parts (O. Reg. 686/21, s. 16).

Policies for the Administration of the Prohibited Activities, Exemptions and Permits Regulation Ontario Regulation 41/24

On April 1, 2024, a new Regulation came into force – Ontario Regulation 41/24 – Prohibited Activities, Exemptions and Permits Regulation (hereinafter referred to as "the Regulation"). The Regulation, issued under the CA Act replaced all 36 individual Conservation Authority regulations (including Regulation 150/06) with one consistent province-wide regulation. The "pollution" and "conservation of land" tests for granting permission were removed from the Act and a new emphasis on public safety was added. Conservation authorities may grant permission for development activities if in the opinion of the Conservation Authority the proposal is not likely to affect the control of flooding, erosion, dynamic beaches, unstable soil or bedrock and when the development activities are not likely to create conditions or circumstances that in the event of a natural hazard might jeopardize the health or safety of persons or result in the damage or destruction of property.

Section 28 (1) of the Act states that "Subject to subsections (2), (3) and (4) and section 28.1, no person shall carry on the following activities, or permit another person to carry on the following activities, in the area of jurisdiction of an authority:

- 1 Activities to straighten, change, divert or interfere in any way with the existing channel of a river, creek, stream or watercourse or to change or interfere in any way with a wetland.
- 2 Development activities in areas that are within the authority's area of jurisdiction and are,
 - i. hazardous lands,
 - ii. wetlands,
 - iii. river or stream valleys the limits of which shall be determined in accordance with the regulations,
 - iv. areas that are adjacent or close to the shoreline of the Great Lakes-St. Lawrence River System or to an inland lake and that may be affected by flooding, erosion or dynamic beach hazards, such areas to be further determined or specified in accordance with the regulations, or
 - v. other areas in which development should be prohibited or regulated, as may be determined by the regulations. 2017, c. 23, Sched. 4, s. 25."

2.0 Policy Objectives

Policy objectives related to the administration of the Regulation include, but are not limited to:

- prevent the loss of life, minimize property damage and social disruption, and avoid public and private expenditure for emergency operations, evacuation, and restoration due to natural hazards and associated processes,
- prohibit *development activity* which, singularly or cumulatively, may restrict riverine channel capacities to pass flood flows, reduce storage capacity in floodplains and wetlands resulting in increased flood levels, and create potential danger to up*stream* and downstream landowners,

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- prohibit development activity of flood and erosion susceptible river or stream valleys and shorelines which may increase hazard risk, create new hazards, or aggravate existing hazards
 - which would in future years require expensive protection measures,
- prevent interference with the hydrologic functions of wetlands throughout the Grand River watershed,
- avoid the degradation and loss of hydraulic and hydrologic functions in river or stream valleys, wetlands, shorelines and *hazardous lands*, and promote restoration and enhancement, wherever possible,
- reduce potential nuisances associated with development activity by limiting the potential for floating objects and debris during flood events.

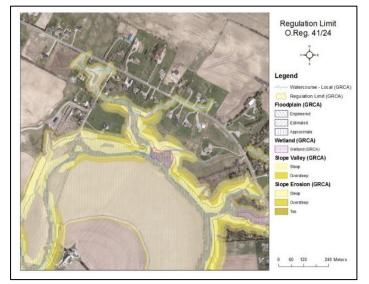


Figure 2. Regulation Limit Map

3.0 Intent

This document outlines the policies followed by the GRCA in making decisions regarding the outcome of all applications made under the Regulation pursuant to the CA Act. This ensures a consistent, timely and fair approach to the review of permit applications, staff recommendations, GRCA decisions and efficient and effective use and allocation of available resources.

4.0 Areas Regulated

The Regulation pertains to areas that are river or stream valleys, wetlands and other areas where development activity could interfere with the hydrologic function of a wetland, adjacent or close to the shoreline of Lake Erie and inland lakes and hazardous lands. The Regulated Area represents the greatest extent of the combined hazards plus an allowance as set out in the Regulation. Areas regulated under Ontario Regulation 41/24 have been mapped according to the prescribed limits in the Regulation (Figure 2).

Existing mapping is accurate to the scale at which the mapping was undertaken. Modifications to the extent of the Regulated Area may be made where more detailed studies determine a more precise boundary. It is important to note that existing mapping does not delimit the extent of all the areas regulated. **The Regulation applies to all areas described by the Regulation, whether mapped or not.** Mapping is updated by the GRCA as more detailed information becomes available.

The Regulation does not:

- limit the use of water for domestic or livestock purposes,
- interfere with the rights or powers conferred upon a municipality in respect of the use of water for municipal purposes,
- interfere with any rights or powers of any board or commission that is performing its functions

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for or on behalf of the Government of Ontario, or

- interfere with any rights or powers under the Electricity Act or the Public Utilities Act,
- apply to activities approved under the *Aggregate Resources Act* (*Conservation Authorities Act, RSO 1990, C. 27, 28(10)*)

Works for which permission is required under the Regulation may also be subject to other legislation, statutes, ordinances, directives, regulations, policies and standards that are administered by other agencies and municipalities such as the provincial *Planning Act, Drainage Act,* and *Environmental Assessment Act* or the federal *Fisheries Act,* among others. It is the responsibility of the applicant to ensure that all other necessary approvals are obtained prior to undertaking any work for which a permit under this Regulation has been obtained.

5.0 Activities Regulated

The CA Act and the Regulation give the GRCA the mandate to prohibit or regulate development activity in river or stream valleys, wetlands, Lake Erie shorelines, inland lakes and hazardous lands within the Grand River watershed. The Regulation also gives the GRCA the authority to prohibit or regulate *alterations* which would result in the straightening, changing, diverting or interfering in any way with the existing channel of a river, creek, *stream*, *watercourse* or changing or interfering in any way with a wetland.

The GRCA interprets development activity to include works that by their scale or scope could have measurable impacts on flooding, erosion, dynamic beaches, or that could increase risks to public health and safety or result in the damage or destruction of property.

5.1 Exceptions

With the exception of activities within wetlands, the GRCA will generally not require permission for the following activities, including but not limited to:

- a non-habitable *accessory building* or structure that is incidental or subordinate to the principal building or structure, is 15 square metres (160 square feet) or less, and is not within a wetland or watercourse,
- the reconstruction of a non-habitable garage with no basement, if the reconstruction does not
 exceed the existing footprint of the garage and does not allow for a change in the potential use of
 the garage to create a habitable space,
- maintenance and upkeep of existing buildings and structures which do not change the existing footprint (e.g., replacement of windows, siding, roofs, stairs, etc.),
- maintenance or repair of a driveway or private lane that is outside of a wetland or the maintenance or repair of a public road, provided that the driveway or road is not extended or widened and the elevation, bedding materials and existing culverts are not altered,
- unenclosed decks and patios associated with existing uses,
- on-going operations associated with existing commercial/industrial uses that have been previously approved by the GRCA,
- replacement of existing service connections (e.g., telephone, cable, water, sewer),
- seasonal or floating docks that do not require permanent structures to support them and that can be moved in the event of flooding,

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- non-structural agricultural uses such as cropping, pasturing, and woodlot management,
- the installation, maintenance or repair of a pond for watering livestock that is not connected to or within a watercourse or wetland, within 15 metres of a wetland or a watercourse, and where no excavated material is deposited within a regulated area,
- minor works such as landscaping or grading (excavation or *filling*) in an area of less than 1 hectare (2.5 acres) to a depth of less than 150 mm (6 inches) or a volume of less than 10 cubic metres (one standard dump truck load) and does not include filling of a site over multiple occasions over an extended period,
- other non-structural uses such as gardens, nurseries, open arboretums, and forestry/wildlife management,
- minor alterations and on-going maintenance to existing dams in watercourses that would not affect the control of flooding and erosion and that would not result in changes in the capacity to pass river flows or impacts on integrity of the structure or in-water works,
- on-going maintenance to stormwater management facilities that would not affect the control of flooding or erosion, and
- municipal water monitoring wells that would not affect the control of flooding and erosion.

It is recommended that any person undertaking work in regulated areas contact the GRCA prior to the activity being carried out in order to determine whether or not the work requires permission from the GRCA.

Development activity which is undertaken in regulated areas without permission of the GRCA is in violation of the CA Act. An individual may be subject to a maximum fine of \$50,000 with an additional fine per day of \$10,000 and/or a term of imprisonment of up to three months. A corporation may be subject to a maximum fine of \$1,000,000 with an additional fine per day of \$200,000 (Conservation Authorities Act, R.S.O. 1990, c. 27, s. 30.5 (2)). Upon conviction, the court may increase the fine to an amount equal to the amount of monetary benefit that resulted from the offence (*Conservation Authorities Act*, R.S.O. 1990, c. 27, s. 30.5 (3)). In addition, if convicted, the development activity may be required to be removed at the expense of the landowner. The landowner may also be required to rehabilitate the impacted area in a manner prescribed by the courts (*Conservation Authorities Act*, R.S.O. 1990, c. 27, s. 30.7 (1)).

6.0 GRCA's Regulatory and Plan Review Function

In addition to its regulatory role under the CA Act, the GRCA has a significant advisory role to watershed municipalities. The GRCA reviews and comments on municipal policy and planning documents, development proposals under the *Planning Act* and other provincial legislation (e.g., *Aggregate Resources Act, Drainage Act, Environmental Assessment Act*) as per Section 6(2) of Ontario Regulation 686/21: Mandatory Programs and Services. GRCA's comments reflect the organization's broad goals and objectives for managing natural hazards within the Grand River *watershed*.

The policies contained in Sections 7, 8 and 9 apply specifically to the GRCA's regulatory role under the CA Act. These policies must be considered in their entirety, since activities that fall within the mandate of the Regulation may influence river or stream valleys, wetlands, shorelines and hazardous lands and alteration to watercourses, either singly or in combination. Where more than one hazard exists in an

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area subject to a proposed activity that falls within the scope of the Regulation, the relevant policies will be applied jointly.

Each permit application will be evaluated on its own merits, on a case-by-case basis, consistent with the policies outlined in Sections 7, 8 and 9.

7.0 General Policies to Prohibit or Regulate Development Activity

7.1 Regulated Areas

Within areas defined by the Regulation (regulated area) including river or stream valleys and an allowance; wetlands or other areas where development activity could interfere with the hydrologic function of a wetland (areas of interference); lands adjacent or close to the shoreline of Lake Erie and inland lakes and an allowance; watercourses, or hazardous lands, the following general policies will apply:

- 7.1.1 Development activity, interference or alteration will not be permitted within a regulated area, except in accordance with the policies in Sections 7, 8 and 9.
- 7.1.2 Development activity, interference or alteration within a regulated area may be permitted where it can be demonstrated through appropriate technical studies and/or assessments, site plans and/or other plans as required by the GRCA that:
 - the risk to public health or safety is not increased,
 - the activity will not result in the damage or destruction of property,
 - susceptibility to natural hazards is not increased or new hazards created,
 - there are no adverse hydraulic or fluvial impacts on rivers, creeks, streams, or watercourses,
 - there are no adverse impacts on the natural shoreline processes of Lake Erie,
 - grading (e.g., placing and removing fill) is minimized and maintains Special Policy Areas and floodplain flow regimes for a range of rainfall events, including the *Regional Storm*,
 - there are no negative or adverse hydrologic impacts on wetlands,
 - sedimentation and erosion during construction and post construction is minimized using *best management practices* including site, landscape, infrastructure and/or facility design (whichever is applicable based on the scale and scope of the project), construction controls, and appropriate remedial measures,
 - access for emergency works and maintenance of flood or erosion control works is available,
 - works are constructed, repaired and/or maintained according to *accepted engineering principles* and approved engineering standards or to the satisfactions of the GRCA, whichever is applicable based on the scale and scope of the project, and
 - the activity is not likely to affect the control of flooding, erosion or dynamic beaches or unstable soil or bedrock; the activity is not likely to create conditions or circumstances that, in the event of a natural hazard, might jeopardize the health or safety of persons or result in the damage or destruction of property and any other requirements that may be prescribed by the regulations.
- 7.1.3 Notwithstanding Section 7.1.2, development activity, interference or alteration in a Regulated Area may be permitted subject to supplementary policies or stand-alone policies as specified in Sections 8 and 9.

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- 7.1.4 Applications for permission to undertake development activity, interference or alteration in Regulated Areas must be accompanied by appropriate technical studies/assessments, site plans/other plans as required by the GRCA. These studies/plans will demonstrate to the satisfaction of the GRCA, how the applicable policies in Sections 7, 8 and 9 will be met. Preconsultation is encouraged to determine requirements for supporting information.
- 7.1.5 Technical studies/assessments, site plans/other plans submitted as part of an application for a permit to undertake development activity, interference or alteration in Regulated Areas must be completed by a *qualified professional* to the satisfaction of the GRCA in conformance with the most current technical guidelines approved by the GRCA/the Province.

7.2 Prohibited Uses

7.2.1 Notwithstanding Sections 7.1.2-7.1.3 – General Policies, development activity will not be permitted within a *Riverine Flooding* or *Erosion Hazard* or *wetland* where the use is:

- a) an institutional use associated with hospitals, nursing homes, pre-school, nurseries, day care or schools, where there is a threat to the safe evacuation of the sick, the elderly, persons with disabilities or the young,
- b) an essential emergency service such as fire, police, ambulance, or electrical substation,
- c) associated with the disposal, manufacture, treatment, transfer, or storage of *hazardous substances*,
- d) associated with the outdoor storage of any materials, either temporary or permanent, or
- e) associated with an assisted living facility.

7.3 Validity of Permits

- 7.3.1 A permit issued by GRCA will be valid for a period up to and including 24 months (two years) unless otherwise specified at the discretion of the GRCA. The maximum period of validity granted by the GRCA in limited circumstances, such as for large-scale public infrastructure projects, is 60 months (5 years).
- 7.3.2 The holder of a permit may, at least 60 days before the expiry of the permit, apply for an extension of the permit. The maximum period of validity of a permit issued, including any extension, is 60 months.

8.0 Specific Policies to Prohibit or Regulate Development Activity

8.1 River or Stream Valleys - Riverine Flooding Hazards

Defining the Riverine Flooding Hazard

Flooding of river or stream systems typically occurs following the spring freshet and may occur again because of extreme rainfall events in the summer or fall. Rivers naturally accommodate flooding within their valleys. Historically, development activity occurred in floodplain areas because of the availability of water for power, transportation, energy, waste assimilation, and domestic and industrial consumption. However, floodplain development is susceptible to flooding which can result in property damage and loss of life.

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For the Grand River watershed, the Regulation states that *Riverine Flooding Hazard* is based on the greater of the Hurricane Hazel storm event (the *Regional Storm*) or the 100-Year return period flood. The flood produced through these calculations is called the *Regulatory Flood*, the limits of which define the extent of the Riverine Flooding Hazard.

Where the Riverine Flooding Hazard is present, a 15 metre (50 foot) allowance is added. In *headwater* areas, the allowance is measured from the channel bank and defines the Regulated Area. The allowance is included to address limitations in base mapping scale and accuracy and consider activities directly adjacent to the Riverine Flooding Hazard, which could aggravate or increase the hazard risk.

The *Regulated Area* includes the Riverine Flooding Hazard (also referred to as the Regulatory Floodplain) and the allowance. Local drainage issues not associated with the Riverine Flooding Hazard are not subject to the Regulation.

Most regulated areas within/adjacent to the Grand River and its tributaries associated with the Riverine Flooding Hazard are *One-Zone Policy Areas*. In a One-Zone Policy Area, the entire regulatory floodplain is considered the *floodway* (Figure 3).

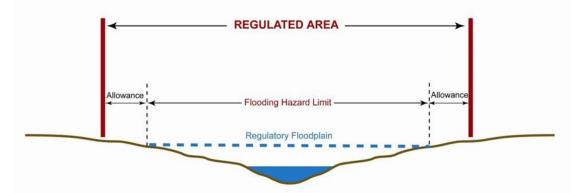


Figure 3. Riverine Flooding Hazard – Regulated Area for One Zone Policy Areas

Exceptions to the One-Zone Policy Area may exist in urban areas where a Two-Zone or Special Policy Area may be selectively applied. Both approaches allow for limited development in the *flood fringe*.

In a *Two-Zone Policy Area*, the floodplain is divided into two distinct sections – the floodway and the flood fringe (Figure 4). The floodway is that area of the floodplain that is required to pass the flows of greatest depth and velocity. The flood fringe lies between the floodway and the edge of the floodplain.

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Depths and velocities of flooding in the flood fringe are much less than those in the floodway. The technical considerations used to determine the floodway-flood fringe delineation and the suitability of applying a Two-Zone policy are described in the Ministry of Natural Resources and Forestry Technical Guide - River and Stream Systems Flooding Hazard Limit (2002).

A Two-Zone Policy Area permits new development or redevelopment in the flood fringe if it is protected to the level of the Regulatory Flood. A Two-Zone Policy Area may be considered where the GRCA in cooperation with the municipality, after due consideration of local circumstances, agrees that application of the concept is suitable. The feasibility of a Two-Zone Policy Area requires the examination of several factors and implementation requires the assurance that various conditions will be complied with.

The application of a Two-Zone Policy Area is not intended to be on a lot-by-lot basis, but on a subwatershed or major reach basis. Where the GRCA and the municipality agree to the use of a Two-Zone Policy Area, appropriate official plan designations and zoning must be put into place. The regional engineer of the Ministry of Natural Resources and Forestry must also be involved in decision making regarding the potential application of a Two-Zone Policy Area.

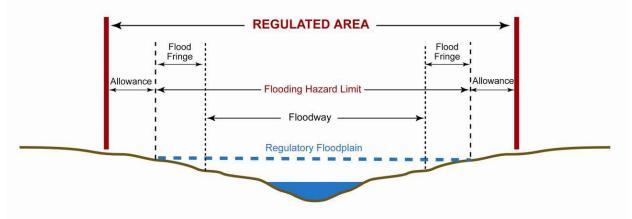


Figure 4. Riverine Flooding Hazard – Regulated Area for Two Zone Policy Areas

Application of a Special Policy Area (SPA) permits new development or redevelopment in the flood fringe and floodway where strict adherence to the One-Zone or Two-Zone approach would not provide sufficient development capability to maintain community viability. Where a SPA is applied, the municipality, GRCA and the Province of Ontario agree to relax provincial flood proofing and technical standards and accept a higher level of risk. Application of a SPA is limited to areas of historic development that qualify based on community and technical criteria. Application of a SPA requires the approval of the Province of Ontario (Ministry of Municipal Affairs and Housing and Ministry of Natural Resources and Forestry), and suitable policies and standards must be incorporated into the municipality's official plan and zoning regulations. Procedures for approval as specified by the Province must be adhered to.

Designated SPAs allow for new development that would not be otherwise permitted. Each has its own development criteria. Copies of the specific policies may be obtained at the GRCA office and at local municipal offices. Considerations for development in SPAs include structural flood proofing, safe access and egress, and the nature of land use. The constraints to development are outlined in each

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SPA agreement. The following areas have SPAs: Brantford, Cambridge (Galt), Drayton, Dunnville, Guelph, New Hamburg, Paris and Waterloo (Laurel Creek).

Regardless of the approach applied, development activity within the Riverine Flooding Hazard and related allowances connected with all watercourses in the Grand River watershed requires permission from the GRCA.

Policies for One-Zone Policy Areas (excluding allowances)

The following policies apply to development activity proposed in a One-Zone Policy Area subject to a *Riverine Flooding Hazard*, excluding allowances.

8.1.1 Development activity will not be permitted within the *Riverine Flooding Hazard* except in accordance with the policies in Sections 7.1.2-7.1.3 – General Policies and Sections 8.1.2-8.1.29 – Policies for One-Zone Policy Areas.

Existing Uses

8.1.2 Development activity associated with existing uses located within a *Riverine Flooding Hazard* may be permitted in accordance with the policies in Sections 7.1.2-7.1.3 – General Policies, and where it can be demonstrated that:

- a) there is no feasible alternative site outside the Riverine Flooding Hazard,
- b) the site is not subject to frequent flooding,
- c) ingress and egress are "dry" where this standard can be practically achieved, or floodproofed to an elevation which is practical and feasible, but no less than "safe",
- d) *floodproofing* is undertaken to the extent practical, where floodproofing to the elevation of the Regulatory Flood is not technically feasible, and
- e) there is no risk of structural failure due to potential hydrostatic/dynamic pressures.

Residential Uses

- 8.1.3 Ground Floor Additions to existing residential buildings or structures may be permitted in accordance with the policies in Section 8.1.2 Policies for One-Zone Policy Areas, and where it can be demonstrated that:
 - a) the ground floor addition is 50 percent or less of the *original habitable ground floor area* to a maximum footprint of 46.5 m² (500 ft²) or in the case of multiple additions, all additions combined are equal to or less than 50 per cent of the original habitable ground floor area to a maximum footprint of 46.5 m² (500 ft²),
 - b) the number of *dwelling units* is the same,
 - c) all habitable floor space is at or above the existing ground floor elevation, and
 - d) no basement is proposed and any crawl space is non-habitable and designed to facilitate services only.
- 8.1.4 An Additional Storey to existing residential buildings or structures may be permitted in accordance with the policies in Section 8.1.2 Policies for One-Zone Policy Areas, and where it can be demonstrated that the number of dwelling units is the same.

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- 8.1.5 *Replacement* of residential buildings or structures damaged or destroyed by causes other than flooding may be permitted in accordance with the policies in Sections 7.1.2-7.1.3 General Policies, and where it can be demonstrated that:
 - a) the building or structure to be replaced is relocated outside the Riverine Flooding Hazard or where this is not feasible, the building or structure is relocated to an area within the existing lot where the risk of flooding and property damage is reduced to the greatest extent, wherever possible,
 - b) the number of dwelling units is the same or less,
 - c) the new building or structure is the same size or larger to a maximum of 50 percent of the original habitable ground floor area or a footprint of 46.5 m²(500 ft²), whichever is the lesser and the use is the same,
 - d) the building or structure is floodproofed to the elevation of the Regulatory Flood,
 - e) ingress and egress are "dry" where this standard can be practically achieved, or floodproofed to an elevation which is practical and feasible,
 - f) no basement is proposed and any crawl space is non-habitable and designed to facilitate services only,
 - g) electrical, mechanical and heating services are located above the level of the Regulatory Flood, wherever possible, and
 - h) there is no risk of structural failure due to potential hydrostatic/dynamic pressures.
- 8.1.6 *Relocation* of existing residential buildings and structures may be permitted in accordance with the policies in Section 8.1.5 Policies for One-Zone Policy Areas, provided that the risk of flooding and property damage is reduced to the greatest extent wherever possible, through relocation.
- 8.1.7 *Non-Habitable Accessory Buildings or Structures* associated with an existing residential use such as detached garages, tool sheds, gazebos and other similar structures, may be permitted in accordance with the policies in Sections 7.1.2-7.1.3 General Policies, and where it can be demonstrated that there is no feasible alternative site outside the Riverine Flooding Hazard,
 - a) the site is not subject to frequent flooding,
 - b) the building or structure is greater than 15 m² (160 ft²) but less than or equal to 46.5 m² (500 ft²),
 - c) the building or structure is securely anchored such that it does not obstruct downstream culverts during a flood event where applicable,
 - d) floodproofing is undertaken to the extent practical, where floodproofing to the elevation of the Regulatory Flood is not technically feasible, and
 - e) there is no opportunity for conversion into habitable floor space in the future.
- 8.1.8 Swimming Pools may be permitted in accordance with the policies in Sections 7.1.2-7.1.3 General Policies, and provided that:
 - a) floodproofing of electrical facilities to the elevation of the Regulatory Flood is undertaken, and
 - b) all fill, except that approved for landscaping, is removed from the Riverine Flooding Hazard.

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Rural Residential Uses

8.1.9 Non-Habitable accessory buildings or structures associated with an existing rural residential may be permitted in accordance with the policies in Section 8.1.7 – Policies for One-Zone Policy Areas, with the exception of c), and where it can be demonstrated that the building or structure is greater than 15 m² (160 ft²) but less than or equal to 100 m² (1,076 ft²) or in the case of additions, the combined area of the existing building or structure and any proposed addition is equal to or less than 100 m² (1,076 ft²).

Commercial/Industrial/Institutional Uses

- 8.10 *Additions* to existing commercial/industrial/institutional buildings or structures may be permitted in accordance with the policies in Section 8.1.2 Policies for One-Zone Policy Areas, and where it can be demonstrated that:
 - a) the addition is 50 percent or less of the original ground floor area of the building or structure to a maximum of 100 m² (1,076 ft²), or in the case of multiple additions, all additions combined are equal to or less than 50 per cent of the original ground floor area of the building or structure to a maximum footprint of 100 m² (1,076 ft²), and
 - b) no basement is proposed, and any crawl space is designed to facilitate services only.
- 8.11 *Accessory Buildings or Structures* associated with commercial/industrial/institutional uses may be permitted in accordance with the policies in Section 8.1.2 Policies for One-Zone Policy Areas, and where it can be demonstrated that:
 - a) the building or structure is greater than 15 m² (160 ft²) but less than or equal to 100 m² (1,076 ft²) or in the case of additions, the combined area of the existing building or structure and any proposed addition is equal to or less than 100 m² (1,076 ft²),
 - b) the building or structure is securely anchored such that it does not obstruct downstream culverts during a flood event where applicable,
 - *c)* the cumulative impact of multiple accessory buildings or structures on the subject property is *negligible*, and
 - d) no basement is proposed, and any crawl space is designed to facilitate services only.
- 8.1.12 Parking Lots associated with existing *non-residential uses* located wholly or partially within the *Riverine Flooding Hazard* may be permitted in accordance with the policies in Section 8.1.2 Policies for One-Zone Policy Areas, and where it can be demonstrated that the risk of property damage is minimized through site design and flood emergency plans.

Internal Renovations

- 8.1.13 *Internal Renovations* to existing buildings or structures which change the use or potential use of the building or structure but provide for no additional dwelling units may be permitted provided that:
 - a) the risks associated with flooding are low,
 - b) the internal renovation does not result in a new use prohibited by Section 7.2 General Policies Prohibited Uses,
 - c) electrical, mechanical and heating services are located above the level of the Regulatory flood, wherever possible, and
 - d) there is no risk of structural failure due to potential hydrostatic/dynamic pressures.

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Stormwater Management

- 8.1.14 *Stormwater Management Facilities* may be permitted within the Riverine Flooding Hazard but outside of the *riparian zone* or *effective flow area*, whichever is greater, in accordance with the policies in Sections 7.1.2-7.1.3 General Policies, if there is no feasible alternative site outside the Riverine Flooding Hazard and where it can be demonstrated that:
 - a) there is no loss of flood storage,
 - b) natural erosion and sedimentation processes within the receiving watercourse are not impacted,
 - c) where unavoidable, intrusions on hydrologic functions are minimized and it can be demonstrated that best management practices including site and infrastructure design and appropriate remedial measures will adequately restore functions,
 - d) facilities are excavated with minimal berming, Special Policy Areas and floodplain flow regimes for a range of rainfall events including the Regional Storm are maintained, and all excavated material is removed from the Riverine Flooding Hazard, and
 - e) design and maintenance performance requirements as determined by the GRCA for the receiving watercourse are met and the effect of the floodplain flow regime on the intended function of the facility is incorporated into the siting and design.

Public Infrastructure

- 8.1.15 *Public Infrastructure* including but not limited to roads, sanitary sewers, utilities, water and sewage treatment plants, water supply wells, well houses, and pipelines may be permitted in accordance with the policies in Sections 7.1.2-7.1.3 General Policies, provided that there is no feasible alternative site outside the Riverine Flooding Hazard as determined through an *Environmental Assessment* or other *comprehensive plan* supported by the GRCA, and where it can be demonstrated that:
 - adverse hydraulic or fluvial impacts are limited and any risk of flood damage to upstream or downstream properties is not increased or is minimized through site design and the affected landowner(s) is informed of the increased risk,
 - b) there is no loss of flood storage wherever possible, and
 - c) where unavoidable, intrusions on hydrologic functions are minimized, and it can be demonstrated that best management practices including site and infrastructure design and appropriate remedial measures will adequately *restore* functions.
- 8.1.16 The maintenance and repair of Public Infrastructure may be permitted in accordance with the policies in Sections 7.1.2-7.1.3 General Policies, and where it can be demonstrated that where unavoidable, intrusions on hydrologic functions are minimized and it can be demonstrated that best management practices including site and infrastructure design and appropriate remedial measures will adequately restore functions.

Recreational Uses

8.1.17 *Recreational Uses* such as passive parks, trails and river *access* points and other uses deemed appropriate by the GRCA, but not including new campgrounds, new golf courses or expansions to existing golf courses, marinas or permanent docks may be permitted in accordance with the policies in Sections 7.1.2-7.1.3 - General Policies, and where it can be demonstrated that:

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- a) there is no feasible alternative site outside the Riverine Flooding Hazard,
- b) there is no loss of flood storage,
- c) where unavoidable, intrusions on hydrologic functions are minimized and it can be demonstrated that best management practices including site, facility and/or landscape design and appropriate remedial measures will adequately restore functions, and
- d) the risk of property damage is minimized through site and facility design and flood emergency plans.

8.1.18 *Marinas* and *Permanent Docks* may be permitted in accordance with the policies in Sections 7.1.2-7.1.3 - General Policies, and where it can be demonstrated that:

- a) there is no measurable loss of flood storage,
- b) facilities are designed to take advantage of existing impacted or open areas on the channel bank, wherever possible,
- *c)* where unavoidable, intrusions on hydrologic functions are minimized and it can be demonstrated that best management practices including site, facility and/or landscape design and appropriate remedial measure will adequately *restore* functions, and
- d) the risk of property damage is minimized through site and facility design and flood emergency plans.
- 8.1.19 Golf Courses or Golf Course Expansions may be permitted in accordance with the policies in Sections 7.1.2-7.1.3 General Policies, and where it can be demonstrated that:
 - a) all associated permanent, closed structures including clubhouses, washrooms with septic systems and maintenance buildings are located outside of the Riverine Flooding Hazard,
 - b) all greens and tees are located above the elevation of the 1:10 year flood event,
 - c) there is no loss of flood storage,
 - d) watercourse crossings are minimized and designed in accordance with the policies in Section 9.1.2, and
 - e) the risk of property damage is minimized through site and facility design and flood emergency plans.

Dug Out/Isolated Ponds

- 8.1.20 A new *Dug-Out or Isolated Pond* or a redesign of an existing Dug-Out or Isolated Pond may be permitted in the Riverine Flooding Hazard in accordance with the policies in Sections 7.1.2-7.1.3 General Policies and where it can be demonstrated that:
 - a) the pond is located outside of the Riverine Erosion Hazard, and
 - b) finished side slopes are stable.
- 8.1.21 *Dredging* of an existing Dug-Out or Isolated Pond may be permitted where it can be demonstrated that:
 - a) all dredged material is removed from the Riverine Flooding Hazard and the Riverine Erosion Hazard,
 - b) dredging does not enlarge the pond in area or volume beyond what was previously constructed,
 - c) finished side slopes are stable,

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- d) hydrologic functions are restored and enhanced to the extent possible, and
- e) the risk of erosion and sedimentation during dredging operations is minimized.

Agricultural Structures

- 8.1.22 Additions to existing agricultural buildings or structures may be permitted in accordance with the policies in Section 8.1.2 Policies for One-Zone Policy Areas, and where it can be demonstrated that:
 - a) the addition is 50 percent or less of the original ground floor area of the building or structure to a maximum of 100 m² (1,076 ft²), or in the case of multiple additions, all additions combined are equal to or less than 50 per cent of the original ground floor area of the building or structure to a maximum footprint of 100 m² (1,076 ft²), and
 - b) no basement is proposed, and any crawl space is designed to facilitate services only.
- 8.1.23 Accessory Buildings or Structures associated with agricultural uses may be permitted in accordance with the policies in Section 8.1.2 Policies for One-Zone Policy Areas, and where it can be demonstrated that:
 - a) the building or structure is greater than 15 m² (160 ft²) but less than or equal to 100 m² (1,076 ft²) or in the case of additions, the combined area of the existing building or structure and any proposed addition is equal to or less than 100 m² (1,076 ft²),
 - b) electrical, mechanical, and heating services are located above the level of the Regulatory flood, wherever possible
 - c) the building or structure is securely anchored such that it does not obstruct downstream culverts during a flood event where applicable,
 - d) the cumulative impact of multiple accessory buildings or structures on the subject property are negligible, and
 - e) no basement is proposed.
- 8.1.24 *Replacement* of agricultural buildings or structures greater than 100 m²(1,076 ft²) damaged or destroyed by causes other than flooding may be permitted in accordance with the policies in Sections 7.1.2 7.1.3 General Policies, and where it can be demonstrated that:
 - a) the building or structure to be replaced is relocated outside the Riverine Flooding Hazard or where this is not feasible, the building or structure is relocated to an area within the existing lot where the risk of flooding and property damage is reduced to the greatest extent, wherever possible,
 - b) the new building or structure is the same size or larger to a maximum of 50 percent of the original habitable ground floor area or a footprint of 100 m² (1,076 ft²), whichever is the lesser.
 - c) no basement or crawl space is proposed,
 - d) electrical, mechanical, and heating services are located above the level of the Regulatory Flood, wherever possible, and
 - e) there is no risk of structural failure due to potential hydrostatic/dynamic pressures.
- 8.1.25 Relocation of existing agricultural buildings and structures greater than 100 m²(1,076 ft²) may be permitted in accordance with the policies in Section 8.1.25 Policies for One-Zone Policy

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Areas, provided that the risk of flooding and property damage is reduced to the greatest extent wherever possible through relocation.

- 8.1.26 Agricultural Structures which reduce risks associated with erosion or sedimentation may be permitted in accordance with the policies in Sections 7.1.2-7.1.3 General Policies, and where it can be demonstrated that:
 - a) there is no feasible alternative site outside the Riverine Flooding Hazard,
 - b) the risk of property damage is minimized through site design and flood emergency plans, and
 - c) floodproofing is undertaken to the extent practical, where floodproofing to the elevation of the Regulatory Flood is not technically feasible.

Exceptions

- 8.1.27 Notwithstanding Section 8.1.1 Policies for One-Zone Policy Areas, development activity in municipally designated *settlement areas* may be permitted within the Riverine Flooding Hazard in areas subject to less than 0.5 metres (1.64 feet) of flooding where a subwatershed study or other appropriate comprehensive study is undertaken on a reach basis, and where it can be demonstrated that:
 - a) the policies in Section 8.1.2 Policies for One-Zone Policy Areas, excluding 8.1.2 d) are met,
 - b) a *cut and fill balance* is applied to reconfigure the Riverine Flooding Hazard such that Special Policy Areas and floodplain flow regimes for a range of rainfall events, including the Regional Storm are maintained, and
 - c) development activity is located above the elevation of the Regulatory Flood.
- 8.1.28 Notwithstanding Section 8.1.1 Policies for One-Zone Policy Areas, development activity may be permitted on existing lots of record within the Riverine Flooding Hazard in *backwater areas* subject to less than 0.5 metres (1.64 feet) of flooding which have been artificially created as a result of undersized infrastructure such as culverts and bridges and where it can be demonstrated that:
 - a) the policies in Section 8.1.2 Policies for One-Zone Policy Areas, excluding 8.1.2 d) are met,
 - b) grading (e.g., placing and removing fill) to raise the elevation of the site is minimized and does not increase upstream or downstream flood risks,
 - c) no basement is proposed, or where the building contains multiple units, the basement is floodproofed to the elevation of the Regulatory flood to provide parking below grade or common amenities, and
 - d) development activity is located above the elevation of the Regulatory Flood.

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Policies for Two-Zone Policy Areas (excluding allowances)

- 8.1.29 A Two-Zone Policy Area may be applied in urban areas where:
 - a) the application of a One-Zone Policy will affect community viability in existing serviced builtup areas or where major channel enhancements or major dyke works have been carried out,
 - a) the application of a Two-Zone Policy Area is supported by the GRCA, the municipality and the Ministry of Natural Resources and Forestry after due consideration of a number of community-related and technical factors,
 - b) a higher level of risk is accepted by the municipality and the GRCA,
 - *c)* a hydraulic study is undertaken which determines the extent of the floodway and flood fringe, and
 - d) the municipality incorporates appropriate policies and standards into its official plan and zoning by-laws.
- 8.1.30 Development activity in the floodway of a Two-Zone Policy Area will not be permitted except in accordance with the policies in Sections 8.1.15 8.1.20 Policies for One-Zone Policy Areas (stormwater management, public infrastructure, and recreational uses).
- 8.1.31 Buildings or Structures may be permitted within the flood fringe of a *Two-Zone Policy Area* provided that:
 - a) the building or structure is floodproofed to the elevation of the Regulatory flood,
 - b) all new dwelling units are above the elevation of the Regulatory flood,
 - c) all habitable floor space and electrical, mechanical, and heating services are above the elevation of the Regulatory flood,
 - d) no basement is proposed, or where the building contains multiple units, the basement is floodproofed to the elevation of the Regulatory flood to provide parking below grade or common amenities, and
 - e) ingress and egress to the building or structure is "dry" where this standard can be practically achieved, or floodproofed to an elevation which is practical and feasible, but no less than "safe".
- 8.1.32 Development activity in the flood fringe of a Two-Zone Policy Area may be permitted in accordance with the policies and standards approved by the municipality and the GRCA.

Policies for Special Policy Areas (excluding allowances)

- 8.1.33 A Special Policy Area (SPA) may be allowed in urban areas where:
 - a) it can be demonstrated by the municipality through detailed studies and appropriate documentation that the application of a One-Zone Policy or a Two-Zone Policy is not adequate to maintain a community's social and economic viability,
 - b) the application of a Special Policy Area is supported by the GRCA, the municipality and the Ministry of Natural Resources and Forestry after due consideration of a number of community-related and technical factors,
 - a higher level of risk is accepted by the municipality, the Province of Ontario (Ministry of Municipal Affairs and Housing and Ministry of Natural Resources and Forestry) and the GRCA,

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- d) a hydraulic study is undertaken to determine the extent of the floodway and flood fringe, and
- e) the municipality incorporates appropriate policies and standards into its official plan and zoning by-laws.
- 8.1.34 Development activity within a Special Policy Area may be permitted in accordance with the policies and standards approved by the municipality, Province and the GRCA.

Prohibited Uses within the Riverine Flooding Hazard

- 8.1.35 Notwithstanding Sections 8.1.2-8.1.34, development activity will not be permitted within the Riverine Flooding Hazard as specified in Section 7.2 General Policies, or where the use is:
 - a) a new campground or the expansion of an existing campground,
 - b) a new parking lot associated with residential uses in a One-Zone Policy Area or the floodway of a Two-Zone or Special Policy Area,
 - c) underground parking associated with any use in a One-Zone or the floodway of a Two-Zone Policy Area,
 - d) a driveway or access way to lands outside of Riverine Flooding Hazard where safe access is not achievable and no alternative access way providing safe access is available, or
 - e) flood protection works and bank stabilization works to allow for future/proposed development activity.
- 8.1.36 Development activity excluding non-habitable accessory buildings or structures associated with an existing use, will not be permitted within 15 metres (49.2 feet) of the either bank of the watercourse except for works permitted under the provisions of Section 9.

Policies for Riverine Flooding Hazard Allowances

8.1.37 Development activity within allowances associated with Flooding Hazards may be permitted in accordance with the policies in Sections 7.1.2-7.1.3 – General Policies, if it can be demonstrated that there is no risk of structural failure due to potential hydrostatic/dynamic pressures.

8.2 River or Stream Valleys – Riverine Erosion Hazards

Riverine Erosion Hazards

Erosion is a process of soil loss due to human or natural processes. The Riverine Erosion Hazard within river or stream valleys is that area of riverbank and lands adjacent to watercourses where erosion is actively occurring or where development activity could create slope stability issues.

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The *Riverine Erosion Hazard* applies to those portions of the *valleyland* system that are both apparent (confined) and not apparent (unconfined). The extent of the hazard varies and is dependent on the characteristics of the bedrock and soils which comprise the valley slope, the degree to which the valley



slope is stable or unstable, and whether the valley slope is subject to active erosion. Valley systems are considered to be apparent or confined where valley walls are greater than 3 metres (10 feet), with or without a floodplain.

Apparent Valleys can exhibit three different conditions within which erosion hazards exist or may develop: valley slopes which are steep but stable, valley slopes which are over steepened and potentially unstable, and valley slopes which are subject to active stream bank erosion.

Where a watercourse is not contained within a clearly visible valley section, valleys are not apparent (unconfined).

Defining the Regulated Area for Apparent Valleys (Confined Systems)

Where the valley slopes in Apparent Valleys have a slope inclination of 15 per cent (6.7H:1V) or greater, the limit of the Regulated Area is the *top of slope* (which includes both the Riverine Erosion Hazard and Other Valleylands (Section 8.3)) plus an allowance of 15 metres (49.2 feet). The top of slope is the point of the slope where the downward inclination of the land begins, or the upward inclination of the land levels off. This point is situated at a higher topographic elevation of land than the remainder of the slope.

Where the valley slopes in Apparent Valleys have a slope inclination of $33 \, {}^{1}/_{3}$ per cent (3H:1V) or greater, the limit of the Regulated Area includes two components: the Stable Slope Allowance plus an allowance of 15 metres (49.2 feet). Where active toe erosion is present in a Confined System, an additional Toe Erosion Allowance is included, regardless of the steepness of the valley wall.

The 15-metre allowance helps to buffer development activity from the hazards of slope instability and to prevent the influence of development activity on the rate of slope movement. Development activity adjacent to valley slopes can cause increased loading forces on the top of slope, compromise slope stability or worsen erosion of the slope face, and result in the loss of stabilizing vegetation. Allowances also provide access for emergencies, maintenance, and construction activities.

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Defining the Riverine Erosion Hazard - Apparent Valley (Confined System) – Steep but Stable (No Toe Erosion)

For the Regulation, any slope with a gradient of 20 per cent (5H:1V) or greater is identified as a Riverine Erosion Hazard. Where the gradient is $33 \, {}^{1}\!/_{3}$ per cent (3H:1V) or less, the valley slopes typically resist slumping and rotational slippage but may become unstable because of the increased loading forces of development activity, depending on the soil structure and underlying geology.

Defining the Riverine Erosion Hazard - Apparent Valley (Confined System) – Oversteepened (No Toe Erosion)

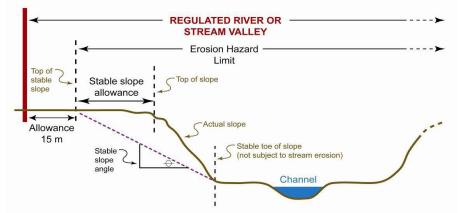


Figure 5. Riverine Erosion Hazard – Regulated Area for Apparent Oversteepened Valleys with Stable Toe

Slopes are considered oversteepened when the gradient is 3H:1V ($33^{-1}/_{3}$ per cent slope) or greater. These slopes can be unstable. On over-steepened slopes, where the *toe of slope* is stable, the Riverine Erosion Hazard is defined using a *Stable Slope Angle*. The Stable Slope Angle is based on a stable slope gradient determined from a geotechnical study or engineering assessment.

The Stable Slope Allowance is the distance between the actual valley *top of slope* and the point at which a stable slope gradient, rising from the same toe position, intersects the ground surface and includes an appropriate *factor of safety*. This is the distance required for the slope to reach a stable slope inclination. Figure 5 shows the two components used to establish the Regulated Area where slopes are oversteepened and no erosion is occurring at the toe of the valley slope.

Defining the Riverine Erosion Hazard - Apparent Valley (Confined System) – Active Toe Erosion

Where valley slopes in Apparent Valleys are subject to active toe erosion, a Toe Erosion Allowance is added into the Riverine Erosion Hazard. The Toe Erosion Allowance is the distance calculated from the toe of slope by multiplying the average annual recession rate (as determined by an engineered study based on observation of twenty-five years or longer) over a 100-year planning horizon. This method estimates the amount of erosion that would occur over the next 100 years. In the absence of an engineering study or where the toe of slope is less than 15 metres (49.2 feet) from the watercourse, a Toe Erosion Allowance of 15 metres (49.2 feet) from the bank of the stream is used. Figure 6 illustrates the three components used to establish the Regulated Area where slopes are oversteepened and active toe erosion is occurring.

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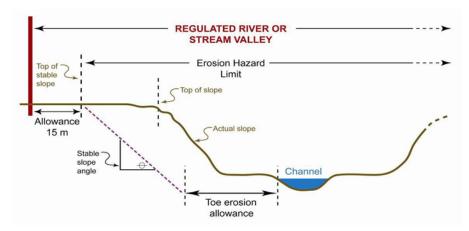


Figure 6. Riverine Erosion Hazard – Regulated Area for Apparent Oversteepened Valleys with Active Toe Erosion

Defining the Regulated Area for No Apparent Valley (Unconfined Systems)

Where there is *No Apparent Valley*, the flow of water is free to shift across shallower land. Although toe erosion and slope stability are not deemed potential hazards, consideration for the meandering tendencies of the system must be provided. In these valley sections, the Regulated Area is the greater of the extent of the Riverine Flooding Hazard plus the prescribed allowance or the *Meander Belt Allowance* plus an allowance of 15 metres (49.2 feet).

The Meander Belt Allowance provides a limit to development activity within the areas where the river system is likely to shift. This allowance is based on twenty (20) times the *bankfull channel width*, where the bankfull channel width is measured at the widest riffle section of the reach. A riffle is a section of shallow rapids where the water surface is broken by small waves. The *meander belt* is centered over the channel (Figure 7).

Development activity within the Regulated Area of any valleyland in the Grand River watershed requires permission from the GRCA.

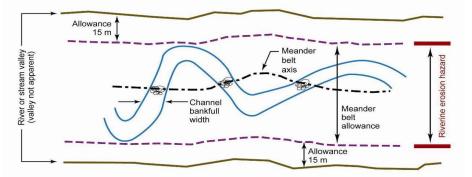


Figure 7. Riverine Erosion Hazard – Regulated Area – No Apparent Valley

Policies for Riverine Erosion Hazards and the Associated Allowance

8.2.1 Development activity will not be permitted within the Riverine Erosion Hazard and the associated *allowance* except in accordance with the policies in Sections 8.2.2–8.2.22.

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Development activity in the Riverine Erosion Hazard Allowance – Apparent Valleys with Slope Inclinations of 20 per cent (5H:1V) or Greater

- 8.2.2 Development activity within the Riverine Erosion Hazard Allowance may be permitted in accordance with the policies in Sections 7.1.2-7.1.3 General Policies, and where a site-specific geotechnical or engineering assessment based on established provincial guidelines and an appropriate factor of safety against slope failure or slipping establishes a more precise *Riverine Erosion Hazard* limit, and where it can be demonstrated that:
 - a) there is no feasible alternative site outside the Regulated Area,
 - b) the proposed development activity is not subject to a Riverine Erosion Hazard or a Riverine Flooding Hazard,
 - c) there is no impact on existing and future slope stability,
 - d) the risk of creating new Riverine Erosion Hazards or aggravating existing Riverine Erosion Hazards as a result of the development activity is negligible,
 - e) the potential of increased loading forces on the top of the slope is addressed through appropriate structural design,
 - f) the potential for surficial erosion is addressed by a drainage plan,
 - *g)* access into and through the valley for preventative actions or maintenance or during an emergency will not be prevented, and
 - h) an appropriate setback from the Riverine Erosion Hazard, as established in Sections 8.2.3 8.2.10.

Residential

- 8.2.3 Non-Habitable Accessory Buildings or Structures associated with an existing residential use such as tool sheds, gazebos and other similar structures, may be permitted within the Riverine Erosion Hazard Allowance in accordance with the policies in Section 8.2.2, provided that a development activity setback of not less than 6 metres (20 feet) is maintained from the Riverine Erosion Hazard, where practical.
- 8.2.4 Ground Floor Additions to existing residential buildings or structures may be permitted within the Riverine Erosion Hazard Allowance accordance with the policies in Section 8.2.2 provided that a development activity setback of not less than 6 metres (20 feet) is maintained from the Riverine Erosion Hazard.

Commercial/Industrial/Institutional

- 8.2.5 Accessory Buildings or Structures associated with an existing industrial/commercial/institutional use may be permitted within the Riverine Erosion Hazard Allowance in accordance with the policies in Section 8.2.2, provided that a development activity setback of not less than 6 metres (20 feet) is maintained from the Riverine Erosion Hazard.
- 8.2.6 Ground Floor Additions to existing industrial/commercial/institutional buildings or structures may be permitted within the Riverine Erosion Hazard Allowance in accordance with the policies in Section 8.2.2 provided that a development activity setback of not less than 6 metres (20 feet) is maintained from the Riverine Erosion Hazard.

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General

- 8.2.7 An Additional Storey to existing buildings or structures within the Riverine Erosion Hazard Allowance may be permitted in accordance with the policies in Section 8.2.2 provided that the existing development activity setback is maintained.
- 8.2.8 Buildings or Structures associated with new multi-lot or multi-unit uses (residential/industrial/commercial/institutional), large-scale uses such as golf courses or commercial/institutional complexes may be permitted within the Riverine Erosion Hazard Allowance in accordance with the policies in Section 8.2.2, provided that all building lots or greens and fairways (in the case of golf courses) are set back, in their entirety, a minimum of 6 metres (20 feet) from the Riverine Erosion Hazard.
- 8.2.9 Buildings or Structures on single lots not associated with new multi-lot or multi-unit uses (residential/industrial/commercial/institutional), large-scale uses or commercial/institutional complexes may be permitted within the Riverine Erosion Hazard Allowance in accordance with the policies in Section 8.2.2, provided that a development activity setback of not less than 6 metres (20 feet) is maintained from the Riverine Erosion Hazard.
- 8.2.10 Replacement or relocation of existing buildings or structures located within the Riverine Erosion Hazard Allowance may be permitted in accordance with the policies in Section 8.2.9.
- 8.2.11 Development activity within the Riverine Erosion Hazard Allowance may be permitted without a site- specific geotechnical or engineering assessment where existing geotechnical or engineering assessments based on established provincial guidelines and an appropriate factor of safety against slope failure or slipping undertaken in the immediate area establish that the site is not subject to a flooding or erosion hazard, and it can be demonstrated that the policies in Section 8.2.2 are met.

Development activity Associated with Existing Uses in the Riverine Erosion Hazard – Apparent Valleys with Slope Inclinations of 20 per cent (5H:1V) or Greater

- 8.2.12 Development activity associated with existing uses located within the Riverine Erosion Hazard may be permitted in accordance with the policies in Sections 7.1.2-7.1.3 General Policies, and where it can be demonstrated through a site-specific geotechnical or engineering assessment based on established provincial guidelines that:
 - a) there is no feasible alternative site outside the Riverine Erosion Hazard,
 - b) the site is not located in a *high-risk reach*,
 - c) the proposed development activity or building or structure is located in the area of least risk,
 - d) the site is located in an area where the factor of safety is not less than 1.1-1.3 depending on the type of use and size of the building or structure,
 - e) there is no impact on existing and future slope stability and bank stabilization or erosion.
 - f) protection works are not required,
 - g) the risk of creating new Riverine Erosion Hazards or aggravating existing Riverine Erosion Hazards as a result of the development activity is negligible,
 - h) the potential of increased loading forces on the top of slope is addressed through appropriate structural design,

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- i) access into and through the valley for preventative actions or maintenance or during an emergency will not be prevented, and
- j) the potential for surficial erosion is addressed by a drainage plan, where applicable.

Residential

- 8.2.13 Non-Habitable Accessory Buildings or Structures greater than 15 m² (160 ft²) but less than or equal to 46.5 m² (500 ft²) associated with an existing residential use such as tool sheds, gazebos and other similar structures, may be permitted within the Riverine Erosion Hazard in accordance with the policies in Section 8.2.12. Additions may be permitted provided that the combined area of the existing non-habitable accessory building *or* structure and the addition is equal to or less than 46.5 m² (500 ft²).
- 8.2.14 Ground Floor Additions to existing residential uses may be permitted in accordance with the policies in Section 8.2.12 provided that the addition is less than 50 per cent of the original ground floor area of the building or structure to a maximum footprint of 46.5 m² (500 ft²).

Industrial/Commercial/Institutional

- 8.2.15 Accessory Buildings or Structures greater than 15 m² (160 ft²) but less than or equal to 100 m² (1,076 ft²) associated with an existing industrial/commercial/institutional use may be permitted within the Riverine Erosion Hazard in accordance with the policies in Section 8.2.12. Additions may be permitted provided that the combined area of the existing accessory building or structure and the addition is equal to or less than 100 m² (1,070 ft²).
- 8.2.16 Ground Floor Additions to existing industrial/commercial/institutional uses may be permitted in accordance with the policies in Section 8.2.12 provided that the addition is less than 50 per cent of the original ground floor area of the building or structure to a maximum footprint of 100 m² (1,076 ft²).

General

- 8.2.17 An Additional Storey to existing buildings or structures may be permitted in accordance with the policies in Section 8.2.12.
- 8.2.18 Replacement or relocation of existing buildings or structures may be permitted in accordance with the policies in Section 8.2.12.

Development activity – No Apparent Valley

- 8.2.18 Development activity will not be permitted within the Riverine Erosion Hazard where there is no apparent valley. A site-specific geotechnical, hydraulic or engineering assessment may be required to establish more precise limits for the Riverine Flooding Hazard and the Riverine Erosion Hazard.
- 8.2.19 Development activity proposed in an area subject to the Riverine Flooding Hazard but beyond the limits of the Riverine Erosion Hazard, may be permitted in accordance with the policies in Section 8.1 – River or Stream Valleys – Riverine Flooding Hazards.

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Public Infrastructure

- 8.2.20 Public Infrastructure including but not limited to roads, sanitary sewers, utilities, water supply wells, well houses, and pipelines, may be permitted in accordance with the policies in Sections 7.1.2-7.1.3 General Policies provided that: there is no feasible alternative site outside the Regulated Area as determined by an Environmental Assessment or other comprehensive plan supported by the GRCA, a site-specific geotechnical or engineering assessment based on established provincial guidelines and an appropriate factor of safety establishes a more precise Riverine Erosion Hazard, and where it can be demonstrated that:
 - a) there are no impacts on existing and future slope stability,
 - b) the risk of creating new Riverine Erosion Hazards or aggravating existing Riverine Erosion Hazards is minimized through site and infrastructure design and appropriate remedial measures,
 - c) the potential of increased loading forces on the top of slope is addressed through appropriate structural design,
 - d) the potential for surficial erosion is addressed by a drainage plan, and
 - e) where unavoidable, intrusions on slopes or hydrologic functions are minimized, and it can be demonstrated that best management practices including site and infrastructure design and appropriate remedial measures will adequately restore features and functions.

Recreational Infrastructure

- 8.2.21 Recreational Infrastructure which by its nature must locate in river valleys such as fencing, stairways, and access points, and other recreational uses deemed appropriate by the GRCA may be permitted in accordance with the policies in Sections 7.1.2-7.1.3 General Policies, and where it can be demonstrated through a site-specific geotechnical or engineering assessment based on established provincial guidelines and appropriate factor of safety that:
 - a) there is no impact on existing and future slope stability,
 - b) the risk of creating new Riverine Erosion Hazards or aggravating existing Riverine Erosion Hazards is minimized through site and infrastructure design and appropriate remedial measures,
 - c) facilities are designed and constructed to minimize the risk of structural failure and/or property damage,
 - d) the potential for surficial erosion is addressed by a drainage plan, and
 - e) where unavoidable, intrusions on slopes or hydrologic functions are minimized, and it can be demonstrated that best management practices including site and infrastructure design and appropriate remedial measures will adequately restore and enhance features and functions.

Prohibited Uses within the Riverine Erosion Hazard

- 8.2.22 Notwithstanding Sections 8.2.2-8.2.22, development activity will not be permitted within the Riverine Erosion Hazard as specified in Section 7.2 General Policies, or where the use is:
 - a) a bank stabilization project intended to protect new development activity, with the exception of public infrastructure,
 - b) placement or dumping of fill not associated with works approved by the GRCA,
 - c) a Stormwater Management Facility, or

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d) excavation works at the toe of a valley slope, except for works which may be permitted in accordance with the policies in Section 9.1.

8.3 River or Stream Valleys – Apparent Valleys - Other Valleylands

River and stream valleys are complex, dynamic landscapes. The interplay between surface and ground water and the linkages, interactions and inter-dependence of aquatic environments with terrestrial environments supply hydrologic functions critical to sustaining watersheds. In the majority of cases, valleylands within apparent valleys are contained within the Riverine Flooding Hazard and/or the Riverine Erosion Hazard. However, the Regulation also includes stable, gently sloping valley walls where the slope inclination is greater than or equal to 15 per cent (6.7H:1V) but less than 20 per cent (5H:1V) to the top of slope, and pockets of gently sloping land terraced between valley slopes outside of the Riverine Flooding Hazard and the Riverine Erosion Hazard. These areas are referred to as *Other Valleylands*.

Where Other Valleylands are defined by the top of slope, an additional 15 metre (49.2 foot) allowance is added to establish the Regulated Area. Development activity within Other Valleylands and the associated allowance (Regulated Area) requires permission from the GRCA and the following policies apply.

Policies for Other Valleylands

- 8.3.1 Development activity will not be permitted in Other Valleylands and the *associated allowance* except in accordance with the policies in Sections 8.3.2-8.3.3.
- 8.3.2 Development activity in Other Valleylands and the associated allowance may be permitted in accordance with the policies in Sections 7.1.2-7.1.3 General Policies, and where it can be demonstrated through a site-specific geotechnical or engineering assessment that:
 - a) the proposed development activity is not subject to a Riverine Erosion Hazard or a Riverine Flooding Hazard,
 - b) there is no impact on existing and future slope stability and bank stabilization, or erosion protection works are not required,
 - c) the potential of increased loading forces is addressed through appropriate structural design,
 - d) access into and through the valley for preventative actions or maintenance or during an emergency will not be prevented, and
 - e) the potential for surficial erosion is addressed by a drainage plan where applicable.
- 8.3.3 Development activity in Other Valleylands and the associated allowance may be permitted without a site- specific geotechnical study, where:
 - a) existing geotechnical or engineering assessments based on established provincial guidelines and an appropriate factor of safety against slope failure or slipping undertaken in the immediate area establish that the site is not subject to a flooding or erosion hazard, and it can be demonstrated that the policies in Section 8.3.2 are met, or
 - b) in the opinion of the GRCA, the impact of the development activity on slope stability is negligible and the policies in Sections 7.1.2-7.1.3 General Policies are met.

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8.4 Wetlands and Areas of Interference

Wetlands are important natural features on the landscape, whether permanently or seasonally wet. They moderate water flow by absorbing much of the surface water runoff from the land and then slowly



releasing it. This helps to reduce flooding and to sustain stream flows during dry spells. Many wetlands recharge groundwater by moving surface water into the groundwater system. Other benefits include protecting and improving water quality, providing habitat for fish and wildlife, and providing recreational opportunities. The lands which surround wetlands are also important to sustaining their essential hydrologic functions.

The areas surrounding wetlands where development activity could interfere with the hydrologic function of the wetland are called "areas of interference". These

areas include lands that are 30 metres (98 feet) from the boundaries of all wetlands.

All wetlands and their associated areas of interference are regulated under the Regulation. Adjustments to the extent of areas of interference are made to the Regulation limits where roads exist. Further refinements to the extent of areas of interference will be made where areas for protection around wetlands were established prior to April 1, 2024 and endorsed by the GRCA through the development process. Future adjustments may be made to the regulation limit after a GRCA permit has been obtained and the approved development undertaken or the subdivision or condominium plan has been registered by the municipality, whichever is applicable.

Any development activity or interference within wetlands or development activity in areas of interference requires permission from the GRCA.

Policies for Wetlands and Areas of Interference

- 8.4.1 Development activity/interference within a wetland or development activity within an area of interference will not be permitted except in accordance with the policies in Sections 8.4.3-8.4.13.
- 8.4.2 Peat Extraction within a wetland will not be permitted except in accordance with the policies in Sections 8.4.4-8.4.5.

Development activity/interference within Wetlands

- 8.4.3 Subdivision or condominium development activity within a wetland or an area of interference previously approved by a municipality under the *Planning Act* with GRCA support may be permitted provided that:
 - a) the proposed development activity met the GRCA policies in effect at the time of draft plan approval, and
 - b) the proposed development activity is modified in accordance with the policies in Section 8 Policies for Wetlands and Areas of Interference, wherever possible.
- 8.4.4 Development activity within a naturally occurring wetland may be permitted where the wetland is less than 0.5 hectares (1.24 acres) and it can be demonstrated that the wetland is not:

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- a) located within a floodplain or watercourse,
- b) there are no negative or adverse impacts on flooding and erosion, and
- c) hazards related to unstable soils can be addressed.
- 8.4.5 Development activity within or interference with *an anthropogenic wetland* less than 2 hectares (5 acres) may be permitted where it can be demonstrated that the wetland's hydrologic functions can be maintained or enhanced elsewhere within the subwatershed or planning area and the wetland is not:
 - a) located within a floodplain or watercourse,
 - b) there are no negative or adverse impacts on flooding and erosion, and
 - c) hazards related to unstable soils can be addressed.
- 8.4.6 Public Infrastructure including but not limited to roads, sanitary sewers, utilities, water supply wells, well houses, and pipelines, within a wetland larger than specified in Sections 8.4.4-8.4.5 may be permitted in accordance with the policies in Sections 7.1.2-7.1.3 General Policies, if it can be demonstrated that:
 - a) an Environmental Assessment or other comprehensive plan supported by the GRCA, demonstrates that all alternatives to avoid wetland loss or interference have been considered and that the proposed alignment minimizes wetland loss or interference to the greatest extent possible, and
 - b) where unavoidable, intrusions on wetlands and their hydrologic functions are minimized and it can be demonstrated that best management practices including site and infrastructure design and appropriate remedial measures will adequately restore functions.
- 8.4.7 Where an Environmental Assessment or other comprehensive plan is available and supported by the GRCA as specified in Section 8.4.6, the GRCA will request a more detailed site-specific study (e.g., a *Scoped Environmental Impact Study*) consistent with the comprehensive plan. This study will determine a more precise area wetland boundary in accordance with the current Ontario Wetland Evaluation System and demonstrate how the hydrologic functions of the wetland will be restored.
- 8.4.8 Dredging of existing ponds within a wetland may be permitted in accordance with the policies in Section 7.1.2 and Section 8.1.21, and provided that all dredged material is placed at a suitable distance from the wetland.

Development activity within Areas of Interference

- 8.4.9 Development activity within an area of interference less than or equal to 30 metres (100 feet) from a wetland may be permitted in accordance with the policies in Sections 7.1.2-7.1.3 General Policies, and where an Environmental Impact Study demonstrates that:
 - a) there are no negative or adverse impacts on the wetland feature and its hydrologic functions,
 - b) there are no negative or adverse impacts on flooding and erosion,
 - c) all development activity is located outside of the wetland and maintains as much setback as feasible,
 - d) development activity is located above the water table, except as specified in Section 8.4.11, and

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- e) septic systems are located a minimum of 15 metres (50 feet) from the wetland and 0.9 metres (3 feet) above the annual maximum water table.
- 8.4.10 Peat Extraction within an area of interference may be permitted where an Environmental Impact Study demonstrates that policies in Sections 7.1.2-7.1.3 – General Policies are met, and the affected area is rehabilitated to restore the wetland feature and functions.
- 8.4.11 An Environmental Impact Study may not be required in an area of interference from a wetland if, in the opinion of the GRCA, the potential hydrologic impacts of the proposed development are negligible. This includes, but is not limited to single family residences, additions, and accessory structures for which less than one (1) hectare (2.5 acres) is required for grading.

Conservation Projects within Wetlands

8.4.12 Wetland Conservation Projects within wetlands and areas of interference may be permitted where an Environmental Impact Study demonstrates how the hydrologic functions will be protected, created, restored, or enhanced.

Stormwater Management within Wetlands

- 8.4.13 Stormwater Management Facilities within a wetland may be approved for flood control purposes provided that a comprehensive plan supported by the GRCA, demonstrates that all alternatives to avoid wetland loss have been considered and a flood control structure is required to alleviate an existing flood or erosion problem of a regional scope, and where it can be demonstrated that:
 - a) all structural components and actively managed components of the stormwater management facility are located outside of the wetland,
 - b) a detailed study (scoped Environmental Impact Study) consistent with the comprehensive plan demonstrates how the hydrologic functions of the wetland will be protected, restored, or enhanced,
 - c) sedimentation during construction and post construction are minimized using best management practices including site and facility design, construction controls, and appropriate remedial measures,
 - d) design and maintenance requirements as determined by the GRCA are met, and
 - e) works are constructed, repaired, or maintained according to accepted engineering principles and approved engineering standards or to the satisfaction of the GRCA, whichever is applicable based on the scale and scope of the project.
- 8.4.14 Stormwater Management Facilities for water quality control will not be permitted within a wetland, but may be permitted in the area of interference where it can be demonstrated that:
 - a) all structural components and actively managed components of the stormwater management facility including constructed wetlands, are located outside of the wetland,
 - b) a detailed study demonstrates how the hydrologic functions of the wetland will be protected, restored or enhanced,
 - c) sedimentation during construction and post construction are minimized using best management practices including site and facility design, construction controls, and appropriate remedial measures,
 - d) design and maintenance requirements as determined by the GRCA are met, and
 - e) works are constructed, repaired, or maintained according to accepted engineering principles

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and approved engineering standards or to the satisfaction of the GRCA, whichever is applicable based on the scale and scope of the project.

8.5 Lake Erie Shoreline

About 26 kilometres (16 miles) of Lake Erie shoreline is within the jurisdiction of the GRCA. For the purposes of defining the extent of the Regulated Area, a 15 metre (50 foot) allowance is added to the furthest landward extent of the flooding hazard, erosion hazard or dynamic beach hazard.

Updated technical studies and shoreline hazard mapping were completed and compiled in a report entitled "Haldimand County Lake Erie Hazard Mapping and Risk Assessment Technical Report" (Baird & Associates) in 2020 and subsequently adopted by the GRCA. The report refined the hazard limits and built upon the Shoreline Management Plan completed by Shoreplan Engineering in 1994, which laid out a technical basis and recommended a management plan for the lakeshore. The Lake Erie shoreline erosion hazard and dynamic beach hazard are determined based on information from the Baird report, updated shoreline mapping, and current applicable site-specific technical information.

Lake Erie Shoreline Flooding Hazard

Flooding from Lake Erie affects the entire shoreline area, backshore areas and extends up the lower portions of the Grand River and its tributaries up to and including the Town of Dunnville. The *Lake Erie Shoreline Flooding Hazard* limit is based on the 100-year flood level, plus the appropriate allowance for wave uprush, and if necessary, for other water-related hazards, including ship generated waves, ice piling and jamming (Figure 9).

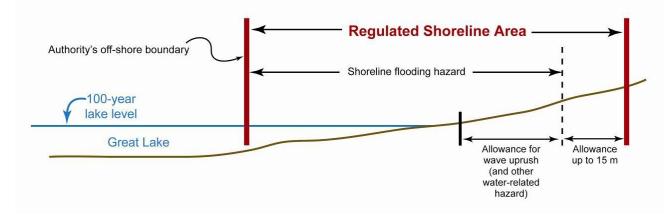


Figure 8. Lake Erie Shoreline Flooding Hazard - Regulated Area

Lake Erie Shoreline Erosion Hazard

The *Lake Erie Shoreline Erosion Hazard* is defined as the average annual rate of recession extended over a 100-year period. The erosion hazard is determined using a stable slope allowance (equal to the horizontal distance measured landward from the toe of slope equal to three (3) times the height of the cliff, bluff or bank) and an erosion allowance equal to 100 times the average annual recession rate (Figure 10).

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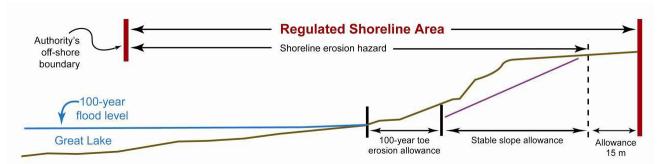


Figure 9. Lake Erie Shoreline Erosion Hazard - Regulated Area

Lake Erie Dynamic Beach Hazard

The *Lake Erie Dynamic Beach Hazard* is that portion of a shoreline where accumulated unconsolidated sediment continuously moves because of naturally occurring processes associated with wind and water and changes in the rate of sediment supply. The extent of the dynamic beach hazard is defined as the extent of the flooding hazard plus a dynamic beach allowance of 30 metres inland to accommodate dynamic beach movements. The "Haldimand County Lake Erie Hazard Mapping and Risk Assessment Technical Report" identifies four reaches containing dynamic beaches, three of which do not form the furthest landward extent of the shoreline hazard due to extensive backshore flooding and wetland areas (Figure 11).

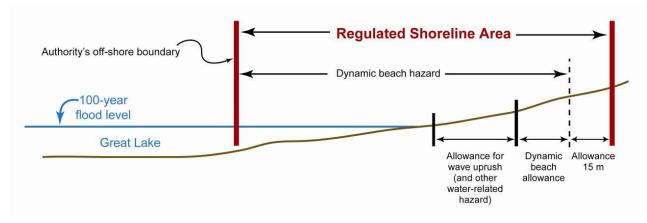


Figure 10. Lake Erie Dynamic Beach Hazard - Regulated Area

Any development activity adjacent or close to the shoreline of Lake Erie within the Regulated Area requires permission from the GRCA.

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Policies for Lake Erie Shoreline

8.5.1 Development activity within the Regulated Area associated with the Lake Erie shoreline will not be permitted except in accordance with the recommendations of the currently approved

Shoreline Management Plan or equivalent for the applicable shoreline reach and the policies in Sections 8.5.2-8.5.13.

Development activity – Lake Erie Shoreline Flooding or Erosion Hazard

8.5.2 Development activity associated with existing uses located within Lake Erie Shoreline Flooding or Erosion Hazards may be permitted in accordance with the policies in Sections
7.1.2-7.1.3 – General Policies, and where there is no feasible alternative site outside the



flooding or erosion hazard, provided that it can be demonstrated that:

- a) the proposed development activity is located in an area of least (and acceptable) risk,
- b) floodproofing standards, protection works standards and access standards as determined by the GRCA are met,
- c) no basement is proposed in the flooding hazard and any crawl space is non-habitable and designed to facilitate services only, and
- d) a maintenance access of at least 5 metres (16 feet) is retained to and along existing shoreline protection works.
- 8.5.3 Ground Floor Additions to existing buildings or structures may be permitted in accordance with the policies in Section 8.5.2 Policies for Lake Erie Shoreline, and where it can be demonstrated that:
 - a) the ground floor addition is 50 percent or less of the original habitable ground floor area to a maximum footprint of 46.5 m² (500 ft²) or in the case of multiple additions, all additions combined are equal to or less than 50 per cent of the original habitable ground floor area to a maximum footprint of 46.5 m² (500 ft²).
 - b) the number of dwelling units is the same,
 - c) all habitable floor space is at or above the existing ground floor elevation, and
 - d) no basement is proposed.
- 8.5.4 An Additional Storey to an existing building or structure may be permitted in accordance with the policies in Section 8.5.2 Policies for Lake Erie Shoreline, and where it can be demonstrated that the number of dwelling units is the same.
- 8.5.5 Non-Habitable Accessory Buildings or Structures greater than 15 m² (160 ft²) associated with an existing uses such as detached garages, tool sheds, gazebos and other similar structures within lands subject to the Lake Erie Shoreline Flooding or Erosion Hazard may be permitted in accordance with the policies in Sections 8.5.2 Policies for Lake Erie Shoreline, and where it can be demonstrated that there is no opportunity for conversion into habitable space in the future.

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- 8.5.6 Replacement of buildings or structures other than those destroyed by flooding or erosion within lands subject to the Lake Erie Shoreline Flooding or Erosion Hazard may be permitted in accordance with the policies in Section 8.5.2, and where it can be demonstrated that:
 - a) the building or structure to be replaced is relocated to an area within the existing lot where the risk of flooding, erosion and/or property damage is reduced to the greatest extent, wherever possible,
 - b) the number of dwelling units is the same or less,
 - c) the new building or structure is the same size or smaller than the ground floor area of the former building or structure and the use is the same,
 - d) the ground floor elevation is at or exceeds that of the former building or structure, where it is not practical to raise it to the level of the Shoreline Flooding Hazard,
 - e) the elevation for ingress and egress is the same or higher than that which was available with the original building or structures, and
 - f) no basement is proposed, and any crawl space is non-habitable and designed to facilitate services only.
- 8.5.7 Relocation of existing buildings and structures within lands subject to Lake Erie Shoreline Flooding or Erosion Hazard may be permitted in accordance with the policies in Section 8.5.6 provided that the risk of flooding, erosion and/or property damage is reduced through relocation.
- 8.5.8 Development activity within Lake Erie Shoreline Flooding or Erosion Hazards, including marinas and other recreational facilities, may be permitted in accordance with the policies Section 8.5.2
 Policies for Lake Erie Shoreline, provided that it can be demonstrated that:
 - a) there is no feasible alternative site outside of the flooding or erosion hazard, and
 - b) vehicles and people have a way of safely entering and exiting the area during times of flooding, erosion and other emergencies.
- 8.5.9 Public Infrastructure including but not limited to roads, sanitary sewers, utilities, water and sewage treatment plants, water supply wells, well houses, and pipelines may be permitted in accordance with the policies in Sections 7.1.2-7.1.3 General Policies, provided that there is no feasible alternative site outside the Shoreline Flooding or Erosion Hazards as determined through an Environmental Assessment or other comprehensive plan supported by the GRCA, and where it can be demonstrated that:
 - a) adverse impacts on shoreline processes are limited and any risk of flood or erosion damage to neighbouring properties is not increased, and
 - b) where unavoidable, intrusions on wetlands and their hydrologic functions or shoreline functions and processes are minimized and it can be demonstrated that best management practices including site and infrastructure design and appropriate remedial measures will adequately restore and enhance features and functions.
- 8.5.10 The maintenance and repair of Public Infrastructure may be permitted in accordance with the policies in Sections 7.1.2-7.1.3 General Policies, and where it can be demonstrated that where unavoidable, intrusions on wetlands and their hydrologic functions or shoreline functions and processes, are minimized and it can be demonstrated that best management practices including site and infrastructure design and appropriate remedial measures will adequately restore and enhance features and functions.

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- 8.5.11 Shoreline Protection Works to protect existing development activity and other uses deemed appropriate by the Grand River Conservation Authority to protect again the shoreline flooding and erosion hazards may be permitted in accordance with the policies in Sections 7.1.2-7.1.3 General Policies, and where it can be demonstrated that:
 - a) all feasible alignments have been considered through an Environmental Assessment supported by the GRCA or other site-specific technical studies, whichever is applicable based on the scale and scope of the project,
 - b) floodproofing standards, protection works standards and access standards as determined by a qualified engineer and supported by the GRCA are met,
 - c) where unavoidable, intrusions on wetlands and their hydrologic functions or shoreline functions and processes are minimized and it can be demonstrated that best management practices including site and infrastructure design and appropriate remedial measures will adequately restore and enhance features and functions,
 - d) maintenance requirements are minimized, and
 - e) a maintenance access of at least 5 metres (16 feet) is retained to and along existing and proposed shoreline protection works.

Development activity – Lake Erie Shoreline Flooding or Erosion Hazard Allowance

- 8.5.12 Development activity within the Lake Erie Shoreline Flooding or Erosion Hazard Allowance may be permitted in accordance with the policies in Sections 7.1.2-7.1.3 General Policies, and where it can be demonstrated that:
 - a) the potential for surficial erosion is addressed by a drainage plan, and
 - b) a maintenance access of at least 5 metres (16 feet) is retained to and along existing and proposed shoreline protection works.
- 8.5.13 Internal Renovations to existing buildings and structures within the Lake Erie Shoreline Regulated Area which change the use or potential use of the building or structure but provide for no additional dwelling units may be permitted provided that the internal renovation does not result in a new use prohibited by Section 7.2.

Prohibited Uses within Lake Erie Flooding or Erosion Hazards

8.5.14 Notwithstanding Sections 8.5.2-8.5.8, development activity will not be permitted in accordance

with the policies in Section 7.2 – General Policies, or where the proposed location is:

- a) on lands within dynamic beach hazard and its associated allowance,
- b) used for new and/or the expansion of existing campgrounds or trailer parks,
- c) used for a Stormwater Management Facility,
- d) used for underground parking, or
- e) within areas that would be rendered inaccessible to people or vehicles during times of flooding hazards, erosion hazards and/or dynamic beach hazards unless safe access is available.



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8.6 Inland Lakes

Lands that are adjacent or close to the shorelines of inland lakes that have a surface area of greater than 2 hectares (5 acres) and less than 100 km² (39 miles²) or that respond to a single runoff event could be affected by flooding or erosion. These lands are within the jurisdiction of the GRCA. Any development activity proposed adjacent to an inland lake will require permission from the GRCA.

Policies for Inland Lakes

8.6.1 Development activity along inland lake shorelines that are impacted by flooding or erosion hazards will not be permitted except in accordance with the policies in Sections 8.1 and 8.2, where applicable.

Prohibited Uses along Inland Lake Shorelines

8.6.2 Notwithstanding Section 8.6.1, development activity will not permitted in accordance with the policies in Section 7.2 – General Policies, or within 15 metres (50 feet) of the average annual high-water mark of the lake with the exception of water control structures (Section 8.9.3).

8.7 Water Management Reservoirs – Belwood and Conestogo Lakes

The Grand River Conservation Authority owns the land adjacent to Belwood and Conestogo Lakes. This land was acquired for dam and reservoir construction, which was completed in 1942 and 1958, respectively. After construction, a decision was made to allow access to lands adjacent to the reservoirs for recreational purposes including public access and cottage lots. This was done with the understanding that the dams and reservoirs would be operated primarily for water management purposes to prevent downstream flooding during the spring snowmelt and extreme rainfall events and to augment low river flows in the summer to ensure adequate water quality and quantity in downstream communities who use the river for water supply.

To ensure that the Grand River Conservation Authority can meet water quality, water quantity and water supply needs throughout the year, the Authority must have the ability to raise and lower reservoir levels as required. Lands below the maximum operating elevation for the reservoirs are essential for flood storage purposes during extreme flood events. The maximum operating elevation that is needed for water management purposes is 425.38 metres (1395.60 feet) at Belwood reservoir and 393.50 metres (1291.01 feet) at the Conestogo reservoir.

The extent of the flood hazard adjacent to Belwood and Conestogo Lakes is different than that for inland lakes and is defined by the elevation of the top of dam, which is 426.72 metres (1400 feet) at the Shand Dam (Belwood) and 395.00 metres (1295.93 feet) at the Conestogo Dam. Development activity within the flood hazard above the maximum operating elevation is limited. In addition, lands above the elevation of the flood hazard may be subject to an erosion hazard. The Regulation Limit around the reservoirs is defined as the furthest limit of the flood and erosion hazard plus an allowance as prescribed in Ontario Regulation 41/24.

Any development activity on cottage lots owned by the Grand River Conservation Authority adjacent to Belwood and Conestogo Lakes will require permission from the GRCA under Ontario Regulation 41/24.

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Policies for Lake Belwood and Conestogo Lake

- 8.7.1 General repairs to existing cottages will be permitted.
- 8.7.2 Where cottage lots are located within the Regulation Limits defined by Ontario Regulation 41/24, all building or site alteration must be in accordance with the Grand River Conservation Authority Policies for the Administration of the Prohibited Activities, Exemption and Permits Regulation Sections 7.1.2-7.1.3 General Policies. Other stipulations for development activity on cottage lots may be required in accordance with the Grand River Conservation Authority Cottage Lot Site Development Policy approved on May 28, 2009.

Cottages Below Top of Dam

- 8.7.3 Additions may be permitted, between the maximum operating elevation and the top of dam, where it can be demonstrated that:
 - a) the footprint of the cottage is not expanded to an area greater than 139.4 m² (1,500 ft²), not including decks or an attached garage,
 - b) the addition does not block the view of the lake from adjacent cottages,
 - c) the addition does not move the cottage footprint closer to the reservoir,
 - d) the ground floor elevation is at or exceeds that of the existing cottage, and
 - e) any attached garage as an addition is less than or equal to 58m² (625ft²) and is not habitable.
- 8.7.4 Non-Habitable Accessory Buildings less than or equal to 10 m² (108 ft²) associated with an existing cottage located between the maximum operating elevation and the top of dam, may be permitted where it can be demonstrated that:
 - a) the building is not used for habitation,
 - b) the building does not block the view of the lake from adjacent cottages,
 - c) the building is not used to store fuels, solvents, chemicals, paints, solid waste, or any other hazardous materials,
 - d) the building or structure is securely anchored, and
 - e) electrical services are located above the top of dam.

Cottages Above Top of Dam

- 8.7.5 Non-Habitable Accessory Buildings associated with an existing cottage located above the top of dam, may be permitted where it can be demonstrated that the accessory building is:
 - a) less than or equal to 58 m^2 (625 ft²) in the case of a garage,
 - b) less than or equal to 11.1 m² (120 ft²) in the case of a shed, or
 - c) less than or equal to $27 \text{ m}^2 (290 \text{ ft}^2)$ in the case of a boathouse, and
 - d) does not block the view of the lake from adjacent cottages.
- 8.7.6 New Cottages located above the top of dam may be permitted where it can be demonstrated that:
 - a) all applicable polices for development activity within the Regulated Limits, in accordance with Sections 7, 8 and 9 have been met,
 - b) the footprint of the new cottage is less than or equal to 139.4 m² (1,500 ft²), excluding decks or attached garages,

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- c) the cottage does not block the view of the lake from the adjacent cottages,
- d) any attached garage is less than or equal to 58 m² (625 ft²) and is not habitable,
- e) no habitable basement is proposed, and,
- f) a Class 4 or tertiary sewage system is installed in accordance with provincial standards in a location suitable to the Grand River Conservation Authority.
- 8.7.7 Additions may be permitted to existing cottages above the top of dam, where it can be demonstrated that:
 - a) all applicable polices relating within Regulated Limits, in accordance with Sections 7, 8 and 9 have been met,
 - b) the footprint of the cottage is not expanded to an area greater than 139.4m² (1,500 ft²), not including decks or an attached garage,
 - c) the addition does not block the view of the lake from adjacent cottages, and
 - d) any attached garage as an addition, is less than or equal to 58 m² (625 ft²) and is not habitable.

Replacement

- 8.7.8 Replacement Cottages may be permitted, except in areas below the maximum operating elevation, where it can be demonstrated that:
 - a) development activity within the flooding hazard is in accordance with the policies in Section 8.1.2 Policies for One-Zone Policy Areas,
 - b) the replacement cottage is relocated above the top of dam or where this is not feasible or where this causes the view of the lake to be impaired, the footprint of the replacement building is located no closer to the reservoir than the original building,
 - c) the footprint of the replacement cottage is less than or equal to 139.4 m² (1,500 ft²), excluding decks or attached garages,
 - d) any attached garage is less than or equal to 58 m² (625 ft²) and is not habitable,
 - e) no habitable basement is proposed,
 - f) a class 4 or tertiary sewage system is installed in accordance with provincial standards in a location suitable to the Grand River Conservation Authority,
 - g) the replacement cottage is floodproofed to the top of dam, where applicable,
 - h) all electrical, mechanical and heating services are located above the *top of* dam, wherever possible, and
 - i) all applicable polices relating within Regulated Limits, in accordance with Sections 7, 8 and 9 have been met,
- 8.7.9 Replacement of Sewage Systems already located between the maximum operating elevation and the top of dam may be permitted where it can be demonstrated that:
 - a) there is no other suitable location on the lot above the top of dam that will accommodate the system,
 - b) the sewage system is upgraded to a class 4 or a tertiary sewage system in accordance with provincial standards in a location suitable to the Grand River Conservation Authority, *and*
 - c) the base or bottom of the sewage system is buried at an elevation that is above the maximum operating elevation.

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Setbacks

8.7.10 A minimum setback of 1.5 metres (5 feet) between any structure and the cottage lot side yard boundaries shall be maintained as identified in Schedule "D" of the Cottage Lot Program Lease, subject to topographic features or other features of the land.

Docks

8.7.11 Docks will be constructed in accordance with the Grand River Conservation Authority Boat Ramp Policy and in a way that they can be adjusted to changing reservoir levels.

8.8 Hazardous Lands

Hazardous land is defined in the Regulation as land that could be unsafe for development because of naturally occurring processes associated with flooding, erosion, dynamic beaches or unstable soil or bedrock.

The Grand River watershed contains other hazardous lands including organic soils and unstable bedrock such as the karst formations. Organic and peat soils, formed by the decomposition of vegetative and organic materials into humus can release humic acids to the ground water system and create highly combustible methane gas. Peat and other organic soils also lack soil structure making them susceptible to erosion and unable to support structure because they compress easily.

Any development activity within hazardous lands requires permission from the GRCA.

Policies for Hazardous Lands

8.8.1 Development activity within hazardous lands will not be permitted except in accordance with the policies in Section 8.8.2.

Development activity in Hazardous Lands

- 8.8.2 Development activity may be permitted within hazardous lands in accordance with the policies in Section 7.1.2-7.1.3 General Policies, and where a technical site-specific study and/or an Environmental Impact Study establishes a more precise hazard land boundary and where it can be demonstrated that:
 - a) there is no feasible alternative site outside the Regulated Area, and
 - b) the risk of instability which would result in structural failure or property damage is minimized.

Prohibited Uses in Hazardous Lands

8.8.3 Notwithstanding Section 8.8.2, development activity will not permitted in accordance with the policies in Section 7.2 – General Policies.

8.9 Watercourses

The area along both sides of any river, creek, stream or watercourse, called the riparian zone, not only provides habitat for a wide range of flora and fauna, but it also filters surface runoff before it reaches open waterways. As runoff passes through, the riparian zone retains excess nutrients, some pollutants and reduces the sediment flow. A healthy zone can also keep stream flow going even during the dry seasons, by holding and releasing groundwater back into the stream. This interface between terrestrial

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and aquatic environments acts as a sponge for storing water, which in turn helps to reduce flooding and shelters the banks against shoreline erosion.

Alterations to the channel of a watercourse can negatively impact the hydrologic functions provided by riparian zones.

Any alteration to the channel of a river, creek, stream or watercourse requires permission from the GRCA. This includes activities such as, but not limited to, culvert placement or replacement, bridge construction, bed level crossings, piping of watercourses, installation or maintenance of pipeline crossings, cable crossings, construction or maintenance of bypass, connected or online ponds, straightening and diversions as well as any work on the bed



or the banks of the watercourse such as bank protection projects.

Policies for Alterations to a River, Creek, Stream, or Watercourse

8.9.1 Alterations including straightening, changing, diverting or interfering with an existing river, creek, stream or watercourse channel are not permitted except as specified in Sections 8.9.2-8.9.17.

Crossings

- 8.9.2 Crossings including but not limited to bridges, culverts, pipelines, channel enclosures of less than 20 metres (66 feet) and causeways may be permitted to be constructed, replaced or upgraded in accordance with the policies in Sections 7.1.2-7.1.3 General Policies and Sections 8.1.16 8.1.17 and Section 8.2.20 where appropriate, and provided that all feasible alternative sites and alignments have been considered through an Environmental Assessment supported by the GRCA or through site-specific studies, whichever is applicable based on the scale and scope of the project and where it can be demonstrated that:
 - a) crossings avoid any bends in the watercourse to the extent practical,
 - b) crossings are located to take advantage of existing impacted or open areas on the channel bank or valley slope, wherever possible,
 - c) crossing structures avoid the Riverine Erosion Hazard in order to accommodate natural watercourse movement, wherever possible,
 - d) the risk of flood damage to upstream or downstream properties is reduced through site and infrastructure design, wherever possible,
 - e) where unavoidable, intrusions on watercourses and their hydrologic functions and morphology are minimized, and it can be demonstrated that best management practices including site and infrastructure design and appropriate remedial measures will adequately restore and enhance features and functions.
 - f) physical realignments or alterations to the river, creek, stream or watercourse channel associated with a new crossing are avoided or are in accordance with the policies in Section 9.1.16, and
 - g) maintenance requirements are minimized.

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Water Control Structures

- 8.9.3 Water Control Structures to protect existing development activity or other uses deemed appropriate by the GRCA from the Riverine Flooding Hazard including dikes and berms, but excluding stormwater management facilities and dams, may be permitted to be constructed maintained or repaired in accordance with the policies in Sections 7.1.2-7.1.3 General Policies, and where it can be demonstrated that:
 - a) all feasible alignments have been considered through an Environmental Assessment supported by the GRCA or other site-specific technical studies, whichever is applicable based on the scale and scope of the project, *and*
 - b) where unavoidable, intrusions on watercourses and their hydrologic functions and morphology are minimized and it can be demonstrated that best management practices including site and infrastructure design and appropriate remedial measures will adequately restore and enhance features and functions.

Dams

- 8.9.4 Dams which by their nature must be located within or directly adjacent to a river, stream, creek or watercourse, including stormwater management facilities, may be permitted where it can be demonstrated that:
 - a) all feasible alternative sites and alignments have been considered through an Environmental Assessment supported by the GRCA or through site-specific studies, whichever is applicable based on the scale and scope of the project,
 - b) the water management benefits of the dam or stormwater management facility are demonstrated to the satisfaction of the GRCA,
 - c) sedimentation and erosion during construction and post construction are minimized using best management practices including site, landscape, infrastructure design, construction controls, and appropriate remedial measures,
 - d) where unavoidable, intrusions on watercourses and their hydrologic functions and morphology are minimized, and it can be demonstrated that best management practices including site and infrastructure design and appropriate remedial measures will adequately restore and enhance features and functions, and
 - e) works are constructed according to accepted engineering principles and approved engineering standards or to the satisfaction of the GRCA, whichever is applicable based on the scale and scope of the project.
- 8.9.5 Alterations to existing Dams may be permitted where it can be demonstrated that:
 - a) sedimentation and erosion during construction and post construction are minimized using best management practices including site, landscape, infrastructure design, construction controls, and appropriate remedial measures,

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- b) where unavoidable, intrusions on watercourses and their hydrologic functions and morphology are minimized, and it can be demonstrated that best management practices including site and infrastructure design and appropriate remedial measures will adequately restore and enhance features and functions,
- c) there are no adverse impacts on the capacity of the structure to pass flows,
- d) the integrity of the original structure is maintained or improved, and



- e) works are altered according to accepted engineering principles and approved engineering standards or to the satisfaction of the GRCA, whichever is applicable based on the scale and scope of the project.
- 8.9.6 The Retirement of Dams or the Removal of Dams which are structurally unsound or no longer serve their intended purpose, located within a river, stream, creek or watercourse may be permitted where an Environmental Assessment or a detailed decommissioning plan supported by the GRCA demonstrates that:
 - a) all potential hydrologic impacts have been identified and considered,
 - b) hydrologic functions and morphology within or adjacent to the river, creek, stream or watercourse are restored and enhanced through the retirement or removal of the structure and a site restoration plan supported by the GRCA,
 - c) the risk of and sedimentation during and after retirement or removal is addressed through a draw down plan supported by the GRCA, and
 - d) susceptibility to natural hazards is not increased or new hazards created.

Conservation Projects

- 8.9.7 Conservation Projects such as stream rehabilitation works, small impoundments and realignments which restore or enhance watercourse morphology may be permitted in accordance with the policies in Sections 7.1.2-7.1.3 General Policies, and provided that:
 - a) the hydrologic benefits of the project are demonstrated to the satisfaction of the GRCA,
 - b) stream bank stability is enhanced,
 - c) watercourses and their hydrologic functions and morphology are restored and enhanced using best management practices including site and/or infrastructure design and appropriate remedial measures,
 - d) natural channel design principles are followed to the extent possible and maintenance requirements are minimized.

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Erosion and Sediment Control Structures

- 8.9.8 Erosion and Sediment Control Structures to protect existing development and other uses deemed appropriate by the GRCA may be permitted in accordance with the policies in Sections 7.1.2-7.1.3 General Policies, and where it can be demonstrated that:
 - a) erosion risk on adjacent, upstream and/or downstream properties is reduced, or erosion and sedimentation processes are controlled to reduce existing or potential impacts from adjacent land uses, whichever is appropriate,
 - b) natural channel design principles are followed to the extent possible,
 - c) where unavoidable, intrusions on watercourses and their hydrologic functions and morphology are minimized, and it can be demonstrated that best management practices including site and infrastructure design and appropriate remedial measures will adequately restore and enhance the feature and its functions, and
 - d) maintenance requirements are minimized.
- 8.9.9 The maintenance and repair of Dams or Erosion and Sediment Control Structures may be permitted where it can be demonstrated that:
 - a) sedimentation during maintenance and repair activities is minimized using best management practices including site and infrastructure design, construction controls and appropriate remedial measures,
 - b) where unavoidable, intrusions on watercourses and their hydrologic functions and morphology are minimized, and it can be demonstrated that best management practices including site and infrastructure design and appropriate remedial measures will adequately restore and enhance features and functions,
 - c) susceptibility to natural hazards is not increased or new hazards created, and
 - d) works are maintained or repaired according to accepted engineering principles and approved engineering standards or to the satisfaction of the GRCA based on the scale and scope of the project.

Ponds

- 8.9.10 Connected Ponds with no water intakes from the watercourse but which outflow into the watercourse may be permitted provided that the provisions of Sections 7.1.2-7.1.3 General Policies are met and a site plan and/or other site-specific study demonstrates that:
 - a) there is no negative impact on the downstream geomorphic regime,
 - b) there is no increase in flooding and erosion, and
 - c) maximum berm heights above existing grades do not exceed 0.3 metres (1 foot) within the Riverine Flooding or Erosion Hazard and all remaining fill is removed from the hazard area.
- 8.9.11 Bypass Ponds connected to watercourses created as part of site restoration plan or a conservation project may be permitted subject to the provisions of Section 8.9.10, and where it can be demonstrated that the water intake is set above the elevation that permits continuous flow (e.g., refreshing of the pond will depend on increased stream flows from snow melt and rainfall events).

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- 8.9.12 On-Line Ponds in a river, creek, stream or watercourse are not permitted except as specified in Sections 8.9.4 and 8.9.11.
- 8.9.13 On-Line Ponds at the very upstream end of watercourses may be permitted for wetland restoration in accordance with the policies in Sections 7.1.2-7.1.3 – General Policies and where a site plan and/or other site-specific study demonstrates that:
 - a) there is no negative impact on downstream geomorphic regimes,
 - b) there is no increase in flooding and erosion, and
 - c) there are no negative impacts on areas of groundwater recharge/discharge.

Dredging

- 8.9.14 Dredging of an existing connected, bypass or on-line pond may be permitted in accordance with the policies in Section 8.1.22.
- 8.9.15 Dredging of a river, creek, stream or watercourse may be permitted to improve hydraulic characteristics and fluvial processes or to improve aquatic habitat or water quality in accordance with the policies in Sections 7.1.2-7.1.3 General Policies, and where a dredging plan and/or other site-specific study demonstrates that:
 - a) stream bank stability is enhanced,
 - b) where unavoidable, intrusions on the feature and its hydrologic function and morphology are minimized and it can be demonstrated that best management practices including site design and appropriate remedial measures will adequately restore and enhance features and functions, and
 - c) all dredged material is removed from the Riverine Flooding and Erosion Hazard and safely disposed of in accordance with the policies in provincial guidelines.

Realignment, channelization or straightening

- 8.9.16 Realignment, channelization or straightening of a river, creek, stream or watercourse may be permitted to improve hydraulic characteristics and fluvial processes or to improve aquatic habitat or water quality in accordance with the policies in Sections 7.1.2-7.1.3 General Policies and where a site plan and/or other site-specific study demonstrates that:
 - a) all feasible alternative alignments have been considered through an Environmental Assessment supported by the GRCA or through site-specific studies, whichever is applicable based on the scale and scope of the project,
 - b) stream bank stability is enhanced,
 - c) where unavoidable, intrusions on the feature and its hydrologic functions and morphology are minimized and it can be demonstrated that best management practices including site design and appropriate remedial measures will adequately restore and enhance features and functions, and
 - d) natural channel design principles are followed to the extent possible.

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Enclosures

- 8.9.17 Enclosures of creeks, streams or watercourses may be permitted where there is a risk to public safety and/or potential property damage and where a site-specific study demonstrates that:
 - a) all feasible options and methods have been explored to address the hazards and the enclosure is supported by the GRCA,
 - b) the risk to public safety is reduced,
 - c) susceptibility to natural hazards is reduced and no new hazards are created,
 - d) there are no negative or adverse hydrologic impacts on wetlands,
 - e) sedimentation and erosion during construction and post construction is minimized using best management practices including site and infrastructure design, construction controls, and appropriate remedial measures,
 - f) intrusions within or adjacent to the river, creek, stream or watercourse are minimized and it can be demonstrated that best management practices including site design and appropriate remedial measures will adequately restore and enhance features and functions to the extent possible,
 - g) there is no negative impact on the downstream geomorphic regime, and
 - works are constructed, repaired and/or maintained according to accepted engineering principles and approved engineering standards or to the satisfaction of the GRCA, whichever is applicable based on the scale and scope of the project.

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Definitions

Accepted Engineering Principles means those current coastal, hydraulic and geotechnical engineering principles, methods and procedures that would be judged by a peer group of qualified engineers (by virtue of their qualifications, training and experience), as being reasonable for the scale and type of project being considered, the sensitivity of the locations, and the potential threats to life and property.

Access (Ingress/Egress) means standards and procedures applied in engineering practice associated with providing safe passage for vehicles and people to and from a shoreline or river-side property during an emergency situation as a result of flooding, other water related hazards, the failure of floodproofing, and/or protection works, and/or erosion that have been reviewed and approved by the Grand River Conservation Authority and/or the Ontario Ministry of Natural Resources and Forestry.

Accessory Building or Structure means a use or a building or structure that is subordinate and exclusively devoted to a main use, building or structure and located on the same lot.

Adverse Hydraulic and Fluvial Impacts means flood elevations are not increased, flood and ice flows are not impeded and the risk of flooding to and erosion on adjacent upstream and/or downstream properties is not increased.

Apparent Valley or Confined Valley means that part of the valleyland system where the valley walls are greater than 3 metres (10 feet), with or without a floodplain.

Anthropogenic means created by a human.

Assisted Living Facility means a multiple residential unit that is constructed with limited kitchen facilities in the unit(s) or a group home, where individuals who require full or partial assistance with activities of daily living (e.g., bathing, toileting, ambulating, self-administration of medications, etc.) reside.

Aquifer means an underground layer of water-bearing permeable rock or unconsolidated materials (gravel, sand, silt or clay).

Areas of Interference means those lands where development activity could interfere with the hydrologic function of a wetland.

Backwater Area means a section of watercourse with an elevation that is increased above normal because of a downstream human-made obstruction such as a narrow bridge opening or culvert that restricts natural water flow.

Bankfull Channel Width means the formative flow of water that characterizes the morphology of a fluvial channel. In a single channel stream, "bankfull" is the discharge, which just fills the channel without flowing onto the floodplain.

Best Management Practices (BMPs) means methods, facilities and structures which are designed to protect or improve the environment and natural features and functions from the effects of development activity or interference.

Comprehensive Plan means a study or plan undertaken at a landscape scale such as a watershed/subwatershed plan, an Environmental Assessment, a detailed Environmental Implementation Report (EIR) that has been prepared to address and document various alternatives and

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is part of a joint and harmonized planning or Environmental Assessment process, or a community plan that includes a comprehensive Environmental Impact Study.

Created in the context of wetlands means the development of a wetland through the manipulation of physical, chemical, or biological characteristics where a wetland did not previously exist.

Creek means a natural stream of water normally smaller than and often tributary to a river.

Cumulative Impact means the combined effects of all activities in an area over time and the incremental effects associated with individual project in an area over time.

Cut and Fill Balance means all fill placed at or below the flood elevation is balanced with an equal amount of soil material removal within a defined reach of a watercourse.

Dam means a structure or work holding back or diverting water and includes a dam, tailings dam, dike, diversion, channel, artificial channel, culvert or causeway (Lakes and Rivers Improvement Act, R.S.O. 1990 c. L3, s. 1)

Development means the creation of a new lot, a change in land use, or the construction of buildings and structures requiring approval under the Planning Act

Development activity in section 28 of the Act and in the Regulation means the construction, reconstruction, erection or placing of a building or structure of any kind, any change to a building or structure that would have the effect of altering the use or potential use of the building or structure, increasing the size of the building or structure or increasing the number of dwelling units in the building or structure, site grading, or the temporary or permanent placing, dumping or removal of any material, originating on the site or elsewhere.

Dug-out or Isolated Ponds mean anthropogenic waterbodies that are created by excavating basins with no inlet or outlet channels and in which surface and ground water collect.

Dwelling unit means a suite operated as a housekeeping unit, used or intended to be used as a domicile by one or more persons and usually containing cooking, eating, living, sleeping and sanitary facilities.

Effective Flow Area means that part of a river, stream, creek or watercourse where there are significant flow velocities and most of the flow discharge is conveyed.

Enclosure means a pipe or other conduit for carrying a creek, stream or watercourse underground.

Enhance in the context of wetlands means the altering of an existing functional wetland to increase or improve selected functions and benefits.

Environmental Assessment means a process that is used to predict the environmental, social and economic effects of proposed initiatives before they are carried out. It is used to identify measure to mitigate adverse effects on the environment and can predict whether there will be significant adverse environmental effects, even after the mitigation is implemented.

Environmental Impact Statement (EIS) means a report prepared to address the potential impacts of development activity or interference on regulated features and hydrologic functions. There are three types: a comprehensive EIS is a landscape scale, watershed or subwatershed study which sets the width of setbacks and offers guidance for the investigation and establishment and maintenance of

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buffers; a Scoped EIS is an area or site-specific study that addresses the potential negative impacts to features described previously in a comprehensive study; a Full EIS is an area or site-specific study prepared, in the absence of a comprehensive study to address possible impacts from a development activity. Due to the lack of guidance from a comprehensive study, the full EIS is typically much more detailed than a scoped study and will also include statements to address possible negative impacts at a regional scale.

Existing Use means the type of activity associated with an existing building or structure or site on the date of a permit application.

Factor of Safety means the ratio of average available strength of the soil along the critical slip surface to that required to maintain equilibrium. The design minimum factors of safety are provided by the Ministry of Natural Resources and Forestry Technical Guide for River and Stream Systems (2002). The higher factor of safety is used in complex geotechnical conditions or where there are geologically metastable materials.

Fill means any material used or capable of being used to raise, lower or in any way affect the contours of the ground, whether on a permanent or temporary basis, and whether it originates on the site or elsewhere.

Flood Fringe means the outer portion of the floodplain between the floodway and the Riverine Flooding Hazard limit where the depths and velocities of flooding are less severe than those experienced in the floodway.

Floodproofing means structural changes and/or adjustments incorporated into the basic design and/or construction or alteration of individual buildings, structures or properties to protect them from flood damage.

Floodway for river, stream, creek, watercourse or inland lake systems means the portion of the floodplain where development activity would cause a danger to public health and safety or property damage. Where the one-zone concept is applied, the floodway is the entire contiguous floodplain.

Where the two-zone concept or special policy area concept is applied, the floodway is the contiguous inner portion of the floodplain, representing that area required for the safe passage of flood flow and/or that area where flood depths and/or velocities are such that they pose a potential threat to life and/or property damage. Where the two-zone concept or special policy area applies, the outer portion of the floodplain is called the flood fringe.

Frequent Flooding means that a site is subject to the 1:25 year flood event or a more regular flood event.

Geologically Metastable Material means a material susceptible to earth flow or where low safety factors may lead to creep movements and progressive softening.

Groundwater Discharge means the flow of water from an *aquifer*. Discharge areas are locations at which ground water leaves the aquifer and flows to the surface. Ground water discharge occurs where the water table or potentiometric surface intersects the land surface. Where this happens, springs or seeps are found. Springs and seeps may flow into freshwater bodies, such as lakes or streams, or they may flow into saltwater bodies.

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Groundwater Recharge means downward movement of water through the soil to the groundwater or the process by which external water is added to the zone of saturation of an aquifer, either directly into a formation or indirectly by way of another formation.

Habitable Floor Space means any area that has the potential to be used as or converted to residential living space, including basements.

Hazardous Land means land that could be unsafe for development because of naturally occurring processes associated with flooding, erosion, dynamic beaches or unstable soil or bedrock.

Hazardous Substances means substances which individually or in combination with other substances, are normally considered to pose a danger to or threat to public health, safety and the environment. These substances generally include a wide range of materials that are toxic, ignitable, corrosive, reactive, radioactive or pathological.

Headwater means the source and extreme upper reaches of a river, creek, stream or watercourse.

High risk reaches include, but are not limited to, the Grand River between where the Brantford South Access Route crosses the Grand River in the City of Brantford, downstream through the County of Brant to the border with Six Nations of the Grand River Territory.

Hydrologic Function means the functions of the hydrologic cycle that include the occurrence, circulation, distribution and chemical and physical properties of water on the surface of the land, in the soil and underlying rocks, and in the atmosphere, and water's interaction with the environment including its relation to living things.

Hydrologic Study means a report prepared to address the potential impacts of development activity and interference on the hydrologic functions of a wetland or other natural feature.

Karst means an area of irregular limestone in which erosion has produced fissures, sinkholes, underground streams, and caverns.

Lake Erie Dynamic Beach Hazard means that portion of the Lake Erie shoreline where accumulated unconsolidated sediment continuously moves as a result of naturally occurring processes associated with wind and water and changes in the rate of sediment supply. The extent of the dynamic beach hazard is defined as the extent of the flooding hazard plus an allowance as identified in the Haldimand County Lake Erie Hazard Mapping and Risk Assessment Technical Report (2020) and Shoreline Management Plan (1994), which lays out a technical basis and recommends a management plan for the lakeshore. Site specific/updated technical information may also apply.

Lake Erie Erosion Hazard means the loss of land, due to human or natural processes, that poses a threat to life and property. The *erosion hazard* limit is determined using considerations that include the 100-year erosion rate (the average annual rate of recession extended over a one-hundred-year time span), an allowance for slope stability, plus a 15 metre allowance.

Lake Erie Flooding Hazard means the inundation, under the 100-year flood including wave uprush and other water-related hazards.

Meander Belt means the area of land in which a watercourse channel moves or is likely to move over a period of time.

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Meander Belt Allowance means a limit for development activity within the areas where the river system is likely to shift. It is based on twenty (20) times the bankfull channel width where the bankfull channel width is measured at the widest riffle section of the reach. A riffle is a section of shallow rapids where the water surface is broken by small waves. The meander belt is centred over a meander belt axis that connects the riffle section of the stream.

Meander Belt Axis means the line or "axis" that the meander belt is centred over which connects all the riffle sections of a stream.

Multi-lot means four lots or more.

Multi-unit means any building or structure or portion thereof that contains more than one unit for any use (e.g., a residential dwelling unit, an industrial/commercial/institutional space designed or intended to be occupied or used for business, commercial, industrial or institutional purposes).

Negligible means not measurable or too small or unimportant to be worth considering.

Non-Apparent Valley or Unconfined Valley means that part of the *valleyland* system where a *river*, *creek*, *stream* or *watercourse* is not contained within a clearly visible valley section.

One Hundred Year Erosion Rate means the predicted lateral movement of a river, creek, stream or

watercourse or inland lake over a period of one hundred years.

Original Ground Floor Area as it pertains to Policy 8.1.3 is the original habitable ground floor area existing in 1970. The year 1970 is used since it was the first year that the Fill Construction and Alteration to Waterways Regulation (Ontario Regulation 41/70) was administered by the GRCA. As it pertains to Policy 8.5.3, the original ground floor area is the original habitable ground floor area existing on May 4, 2006. This was the date that the Development, Interference with Wetlands and Alteration to Shorelines and Watercourses Regulation (Ontario Regulation 150/06) was approved which broadened the regulatory mandate of the GRCA to include the Lake Erie shoreline.

Other Water-Related Hazards means water-associated phenomena other than flooding hazards and wave uprush which act on shorelines. This includes, but is not limited to ship-generated waves, ice piling and ice jamming.

Oversteepened Slope means a slope which has a slope inclination equal to or greater than $33 \frac{1}{3}$ per cent (3H:1V).

Potentiometric Surface means the potential level to which water will rise above the water level in an aquifer in a tightly cased well that penetrates a confined aquifer; if the potential level is higher than the land surface, the well will overflow.

Protection Works means structural or non-structural works which are intended to appropriately address damages caused by flooding, erosion and/or other water-related hazards.

Qualified Professional means a person with specific qualifications, training, and experience authorized to undertake work in accordance with the policies in accepted engineering or scientific principles, provincial standards, criteria and guidelines, and/or to the satisfaction of the GRCA.

Regulated Area means the area encompassed by all hazards and wetlands, plus any allowances.

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Regulatory Flood means the inundation under a flood resulting from the rainfall experienced during the Hurricane Hazel storm (1954) or in limited situations in headwater streams, the 100-year flood, wherever it is greater, the limits of which define the riverine flooding hazard.

Replacement means the removal of an existing building or structure and the construction of a new building or structure. Replacement does not include reconstruction on remnant foundations or derelict or abandoned buildings or structures.

Restore in the context of wetlands means the re-establishment or rehabilitation of a former or degraded wetland with goal of returning natural or historic functions and characteristics that have been partially or completely lost by such actions as filling or draining.

Riffle means a section of shallow rapids where the water surface is broken by small waves.

Riparian Vegetation means the plant communities in the riparian zone, typically characterized by hydrophilic plants.

Riparian Zone means the interface between land and a flowing surface water body. Riparian is derived from Latin ripa meaning riverbank.

River means a large natural stream of water emptying into an ocean, lake, or other body of water and usually fed along its course by converging tributaries.

Riverine Erosion Hazard means the loss of land, due to human or natural processes, that poses a threat to life and property. The riverine erosion hazard limit is determined using considerations that include the 100-year erosion rate (the average annual rate of recession extended over a one-hundred-year time span), an allowance for slope stability, plus a 15-metre allowance or, in unconfined systems, the meander belt allowance plus a 15-metre allowance.

Riverine Flooding Hazard means the inundation, under a flood resulting from the rainfall experienced during the Hurricane Hazel storm (1954) or in limited situations in headwater streams, the 100-year flood, wherever it is greater.

Riverine Hazard Limit means the limit which encompasses the flooding and erosion hazards and the river, creek, stream or watercourse.

Safe Access means locations where during the Regulatory Flood, the flow velocity does not exceed 1.7 m/s, the product of depth and velocity does not exceed 0.4 m²/s, the depth of flooding along access routes to residential units does not exceed 0.8 metres or 1.2 metres along access routes to commercial or industrial buildings or structures, and the depth of flooding adjacent to residential units does not exceed 1.2 metres or 2.0 metre adjacent to commercial or industrial buildings or structures.

Settlement Area means urban areas and rural settlement areas within municipalities (such as cities, towns, villages and hamlets) that are: built up areas where development is concentrated and which have a mix of land uses; and lands which have been designated in an official plan for development over the long-term planning horizon.

Special Policy Area means an area within a community that has historically existed in the floodplain and where site-specific policies, approved by the Ministers of Natural Resources and Forestry, Municipal Affairs and Housing, GRCA and the municipality are intended to provide for the continued viability of existing uses (which are generally on a small scale) and address the significant social and

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economic hardships to the community that would result from strict adherence to the provincial policies concerning development. The Province establishes the criteria and procedures for approval. A Special Policy Area is not intended to allow for new or intensified development if a community has feasible opportunities for development outside the floodplain.

Stage-Storage Discharge Relationship means the relationship of flood storage and flood elevation values at various flood flow rates within a particular watercourse/floodplain reach. This relationship is used as a factor to determine whether the hydraulic function of the floodplain is preserved.

Stream means a flow of water in a channel or bed, as a brook, rivulet, or small river.

Toe of Slope means the lowest point on a slope, where the surface gradient changes from relatively shallow to relatively steep.

Top of Slope means the point of the slope where the downward inclination of the land begins, or the upward inclination of the land levels off. This point is situated at a higher topographic elevation of land than the remainder of the slope.

Valleyland means land that has depressional features associated with a river or stream, whether or not it contains a watercourse.

Watercourse means a defined channel, having a bed and banks or sides, in which a flow of water regularly or continuously occurs.

Watershed means an area that is drained by a river and its tributaries.

Wave Uprush means the rush of water up onto a shoreline or structure following the breaking of a wave; the limit of wave uprush is the point of furthest landward rush of water onto the shoreline.

Wetland according to the Regulation means land that is seasonally or permanently covered by shallow water or has a water table close to or at its surface, directly contributes to the hydrological function of a watershed through connection with a surface watercourse, has hydric soils, the formation of which have been caused by the presence of abundant water, and has vegetation dominated by hydrophytic plants or water tolerant plants, the dominance of which have been favoured by the presence of abundant water.

Links to Key References

Provincial Legislation and Regulations

Federal Legislation and Regulations

Conservation Authorities Act

Ontario Regulation 41/24

Ontario Regulation 42/24

Ontario Regulation 686/21

Provincial Policy Statement

Grand River Conservation Authority

Report number: GM-05-24-44

Date: May 24, 2024

To: Members of the Grand River Conservation Authority

Subject: Elora Low Level Bridge Rehabilitation

Recommendation:

THAT the Grand River Conservation Authority (GRCA) award the tender for the Elora Low Level Bridge Rehabilitation to HugoMB Contracting Inc. for the amount of \$504,121.00 excluding HST;

AND THAT a total budget of \$600,000.00 excluding HST be approved.

Summary:

Not applicable.

Report:

The Elora Gorge Conservation Area opened in 1954 and the Low Level Bridge was constructed circa 1959 and consists of a seven (7) span, steel reinforced concrete solid slab bridge supported on piers and abutments. At the first five (5) pier there is a concrete invert slab with the remaining piers and an abutment founded on bedrock. As part of an OSIM inspection in 2017, erosion of the invert slab was suspected and confirmed through an underwater structural inspection. Since then, further reviews have been completed and a monitoring program was developed to watch for structural changes and movement until repairs are completed.

The proposed repair work includes placing underwater tremmie concrete, repair of the concrete bridge deck and nosing, and replacement of existing concrete tubing exit platform.

The work to repair the bridge takes place in the Grand River, therefore, permitting and construction scheduling are critical to the success of this project. A Species at Risk Permit has been received by Fisheries and Oceans Canada (DFO), MECP project notification has been completed and a conditional GRCA permit has been received that will be finalized as part of subsequent meetings with the successful contractor.

The tender for the Elora Gorge Low Level Bridge Rehabilitation was publicly advertised on the Biddingo electronic procurement website on April 5, 2024 and closed on May 2, 2024. A total of forty-one (41) potential bidders downloaded the tender package, with seven (7) attending the mandatory site meeting. Two (2) bids were received by the closing time.

The tender submission was opened with an opening committee consisting of Kayleigh Keighan, Financial Controller, Brandon Heyer, Manager of Central Services, and Alan McKee, Project Supervisor. The tender submission was opened in the virtual presence of everyone while sharing the screen through Microsoft Teams. The results of the tender process are shown below in Table 1.

[Rank	Company	Tender Amount (excluding HST)
	1	HugoMB Contracting Inc.	\$504,121.00
	2	VanDriel Excavating Inc	\$887,776.29

Table 1: Tender Results

Staff are satisfied with the lowest cost submission as it aligns with the project specifications requirements and budget. RJ Burnside & Associates also reviewed the bids for irregularities & completeness and based on the submission they have recommended the project be awarded to HugoMB Contracting Inc.

GRCA staff recommend that a budget be approved with an additional internal contingency added to allow staff to work with the consultant and the contractor to resolve unforeseen required project changes. The total proposed budget is shown in Table 2.

Table 2: Budget

Tender amount	\$504,121.00
Internal GRCA Project Contingency	\$95,879.00
Total budget excluding HST	\$600,000.00

Financial Implications:

This work is included in the 2024 Conservation Areas capital budget.

Other Department Considerations:

GRCA Conservation Areas have been involved with design of the proposed work. GRCA permitting staff have reviewed the work. GRCA Water staff are aware of the proposed work and communication with project staff will continue regarding river water flows during construction

Prepared by:

Approved by:

Alan McKee Project Supervisor, Central Services

Brandon Heyer Manager of Central Services Karen Armstrong Deputy CAO/Secretary Treasurer

Grand River Conservation Authority

Report number: GM-05-23-46

Date: Friday May 24, 2024

To: Members of the Grand River Conservation Authority

Subject: Conestogo Dam Concrete Rehabilitation Phases 4 and 5 Tender Award

Recommendation:

THAT the Grand River Conservation Authority accept the tender with Clearwater Structures Incorporated in the amount of \$3,281,560.00 (excluding HST) as it was the lowest tender submitted meeting all tender requirements;

AND THAT AECOM Canada Limited. be retained to oversee the Contract Administration and Quality Assurance for the project at a cost of \$280,100 (excluding HST) for both Phases 4 and 5.

Summary:

A construction tender 2024-WI-001 Conestogo Dam – Upstream Concrete Rehabilitation Phases 4 and 5 was publicly advertised. The GRCA received and opened four (4) tender bids on April 30, 2024 and recommends award of the contract to Clearwater Structures Incorporated. as the low bidder.

Report:

The GRCA manages a large portfolio of water control structures. Annual inspections are performed at the structures and repair work is identified and then planned and prioritized as part of the 5-year budget forecasts. Concrete repairs were identified to address deterioration on the upstream and downstream wingwalls of Conestogo Dam.

Design work for concrete repairs at Conestogo Dam has been carried out by engineering consultant, AECOM Canada Limited (AECOM). AECOM was selected to complete the concrete condition assessment of Conestogo Dam in 2018, and completed subsequent concrete rehabilitation design drawings, tender packages and contract administration and quality assurance on behalf of the GRCA for phases 1, 2a, 2b, and 3 starting in 2019. Concrete repair work for the downstream area and bridge deck was tendered and completed between 2019 and 2023. The AECOM proposal for contract administration for phases 4 and 5 provides efficiencies with their knowledge of the project and completion of the design drawings. In addition, AECOM's familiarity with this project provides continuity and efficiency, particularly with newer GRCA staff involved with the project. The fee estimates provided by AECOM are reasonable and within industry expectations for the value of the construction and comparable to their previous years' fees.

The current tender deals with the final two phases of work on the upstream wingwalls and forebay. The project involves staged concrete repairs to the upstream portion of the structure including upstream surfaces of the abutment walls, piers, pier corbels and curtain walls, the northwest and southwest wingwalls, soffit of the hoist house and other miscellaneous work. Weathered concrete will be chipped to a sound base and new concrete placement will be formed or patched as required. Phases 4 and 5 for construction over two years were tendered as one project to create efficiencies in construction, contract administration and overall project timelines.

The project tender was publicly advertised on the Biddingo government contract web service. The tender period closed on April 30, 2024, at 2 pm. with four tender submissions received. The tender opening was carried out at the GRCA office by Katelyn Lynch, Manager of Water Infrastructure and Mitch Jewson, Intermediate Infrastructure Engineer with Kayleigh Keighan, Financial Controller attending virtually via Team video conference. Engineering consultant Trevor Scott of AECOM also attended the opening virtually. The tender cost results are summarized in Table 1.

Tenderer	Total Contract Price (Excluding HST)		
1. Clearwater Structures Incorporated.	\$3,281,560.00		
2. Marbridge Construction Limited.	\$3,357,850.00		
3. UrbanLink Civil Limited.	\$3,529,500.00		
4. Bronte Construction	\$3,635,276.82		

Table 1 – Tender Results

The above noted amounts include a \$350,000.00 contingency allowance and excludes HST.

The tenders were reviewed by GRCA staff and AECOM Incorporated. AECOM has developed the design and tender for the project and is recommended to act on behalf of the GRCA as contract administrators for the project. The tender price was within the engineering pre-estimate value and project budget. Award of the tender is recommended to Clearwater Structures Incorporated as the lowest bid and meeting all tender requirements including suitable experience on large projects.

Financial Implications:

Funding for this project has been included in the Water Control Structures maintenance budgets and a grant application will be submitted for funding under the provincial Water and Erosion Control Infrastructure (WECI) program, for 50 Percent matching funds for project costs. The tender price met GRCA's budget estimate and engineering estimates for the work. If provincial WECI funding is not approved GRCA would use the water control structures reserve to fund the shortfall.

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-05-24-50

Date: May 24, 2024

To: Members of the Grand River Conservation Authority

Subject: Current Watershed Conditions as of May 14, 2024

Recommendation:

THAT Report Number GM-05-24-50 – Current Watershed Conditions as of May 14, 2024 be received as information.

Summary:

Precipitation in April was above average; slightly more rain was recorded during the first half of the month. As of May 14, 3-month indicators for precipitation are showing above average conditions at 7 of 8 climate stations. So far on average, the watershed has received below half of the long-term average precipitation for the first half of May.

On average, temperatures in April were around 1.5 degrees Celsius warmer than the long-term average. The average temperature in the first half of May at the Shand Dam climate station was around 2.5 degrees warmer than the long-term average for half of the month of May. Reservoirs are at their normal operating levels for this time of year. Downstream low flow targets are consistently being met.

Lake Erie continues to be above the long-term average. Levels are approximately 1 centimeter above May 2022 levels and 3 centimeters below May 2023 levels. The long-term forecast over the next three months is for above normal temperatures and near normal precipitation.

Report:

Precipitation

Precipitation up to May 14 ranged from 49 to 120 percent of the long-term average for half of the month of May at climate stations across the watershed, as shown in Table 1. The northern part of the watershed has received more rain in May, so far.

Trends in precipitation, as presented in Table 2, show that during the past 3 months, the watershed has experienced slightly wetter than normal conditions on average, with precipitation levels ranging from around 94 percent at the Environment and Climate Change Canada's Brantford Airport climate station to 131 percent at the Luther climate station with an overall average of around 116 percent. Over longer periods, the precipitation levels are around normal long-term averages. A visual representation of these trends for the Shand climate station is

Climate Station	Current Month Precipitation (mm)	Long Term Average Precipitation (mm)	Percentage of Long- Term Average (%)
Shand	48.7	40.5	120%
Conestogo	37.6	44.7	84%
Guelph	32.4	39.6	82%

Table 1: Current monthly precipitation for climate stations across the watershed up to May 14, 2024, including the long-term average precipitation for half of May.

Climate Station	Current Month Precipitation (mm)	Long Term Average Precipitation (mm)	Percentage of Long- Term Average (%)	
Luther	45.6	44.3	103%	
Woolwich	30.6	33.9	90%	
Laurel	24.3	41.1	59%	
Shades	33.7	40.0	84%	
Brantford	18.0	37.1	49%	

Table 2: Precipitation trends as a percentage (%) 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	156%	131%	119%	109%	111%
Conestogo	147%	130%	111%	105%	107%
Guelph	161%	121%	117%	107%	109%
Luther	174%	131%	117%	108%	114%
Woolwich	152%	111%	111%	106%	107%
Laurel	124%	103%	97%	92%	97%
Shades	149%	109%	112%	110%	111%
Brantford	122%	94%	116%	101%	109%

Air Temperatures

April was slightly warm with the average temperatures at all the stations around 1.5 degrees Celsius higher than their respective long-term averages.

The average temperature at the Shand Dam climate station over the first 14 days of May was 13 degrees Celsius which is almost 2.5 degrees warmer than the long-term average for the first half of the month of May.

A visual representation of these trends for the Shand climate station is provided in Figure 2.

Lake Erie Water Levels

During April, the average lake level was approximately 0.38 meters above the long-term average. Levels increased at the beginning of May and are approximately 0.32 meters above the long-term average. The forecast for Lake Erie is for lake levels to begin to follow a normal decline into early summer. Figure 3 shows the range of water levels expected over the next six months as well as the observed water levels over the last four years.

Reservoir Conditions

The large reservoirs reached their spring filling targets and are at their normal operating levels for this time of year. There is 7 and 8 percent of 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. Discharges are normal and all downstream flow targets are being met.

Low Water Response

The watershed remains in normal condition. Precipitation and streamflow data will continue to be monitored along with groundwater level data.

Long Range Forecast

Environment and Climate Change Canada is forecasting above normal temperatures and normal precipitation for the watershed over the 3 months of May, June, and July.

Flood Preparedness and Flood Centre Activities

During the month of April, the GRCA flood operations centre issued two flood messages. A watershed conditions statement was issued on April 1 when a weather system forecast to bring 40 to 50 millimeters of rain to the watershed for April 2 to 3. Another watershed conditions statement was issued on April 10 when there was 40 to 50 millimeters of rain in the forecast for April 11 to 12.

The GRCA flood operations centre has not issued any flood messages in May, as of May 14.

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

Prepared by:

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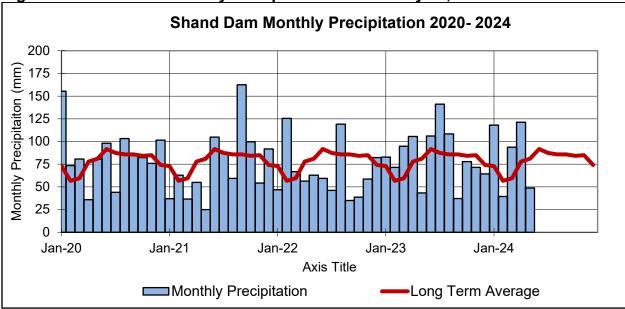
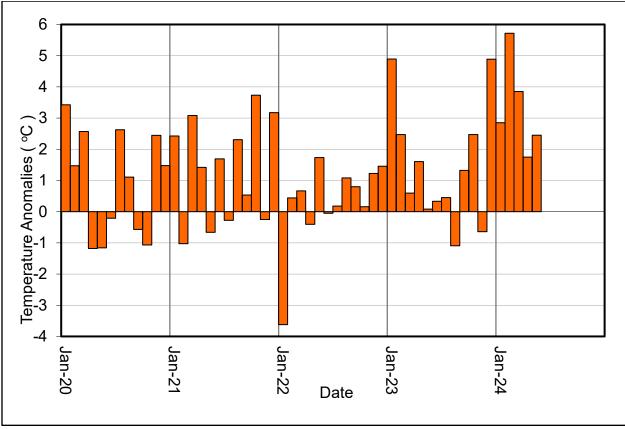


Figure 1: Shand Dam Monthly Precipitation 2020 to May 14, 2024





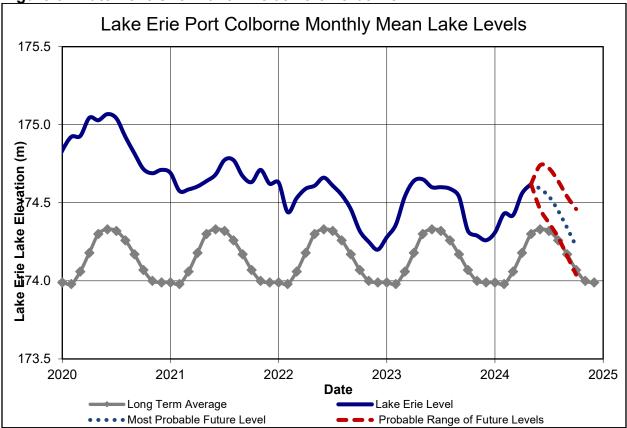


Figure 3: Water levels for Lake Erie at Port Colborne

