Rideau Valley Conservation Authority

3889 Rideau Valley Drive
PO Box 599, Manotick ON K4M 1A5
T 613-692-3571 | 1-800-267-3504
F 613-692-0831 | www.rvca.ca

Board of Directors Meeting

Thursday, October 24, 2024
6:30 pm
3889 Rideau Valley Drive, Manotick ON
(RVCA Boardroom)

Members and the public are also welcome to join via Zoom.
Please contact Marissa Grondin at marissa.grondin@rvca.ca or 1-800-267-3504 ext. 1177 in advance of the meeting if you wish to receive instructions to join.

AGENDA

Meeting 8/24 **Page**

13.0 Meetings

Upcoming

a) Source Protection Committee Meeting – October 3, 2024
b) Reconciliation and Thanksgiving Harvest – October 3, 2024
c) Latornell Conservation Symposium – October 8 & 9, 2024
d) National Climate Adaptation Summit – October 22, 2024
e) Eastern General Managers meeting – October 24, 2024

Upcoming

f) Eastern Ontario CA GM Meeting – November 7, 2024
g) Quarterly City-CA Meeting – November 15, 2024
h) Board of Directors Meeting – November 28, 2024
i) RVCF Board of Directors Meeting – December 11, 2024

14.0 Member Inquiries

15.0 New Business

16.0 Adjournment

Action Items from Previous Meetings:

Item	Lead Staff	Anticipated Timeline

8.0 Floodplain & Erosion Hazard Study: Upper Watershed
Report #: 01-241024

To: RVCA Board of Directors
From: Brian Stratton, P.Eng.
Manager, Engineering Services
Date: October 9, 2024

	For Information
	For Direction
X	For Adoption
	Attachment

Recommendation:

THAT the Board of Directors of the Rideau Valley Conservation Authority approves Aquafor Beech Limited to complete the Upper Watershed Floodplain & Erosion Hazard Study at a cost not to exceed $382,000 with the project funded from RVCA's reserves and / or external funding.

Purpose
To seek approval to enter into an agreement with Aquafor Beech Limited to delineate floodplain and erosion hazards in the upper watershed.

Background
In October 2023, a Six Year Natural Hazards Mapping Strategy was approved by the RVCA Board of Directors (Staff Report 03-231026). The strategy has two main components: new hazard mapping within the City of Ottawa and new hazard mapping in the upper watershed. This strategy is contingent on external funding and the next round of Flood Hazard Identification and Mapping Program (FHIMP) funding is now open. This program provides up to 50% funding to successful applicants.

Analysis
In preparation for the next round of FHIMP funding, RVCA staff issued a request for proposal (RFP) in July 2024 to seek a consultant to undertake a floodplain and erosion hazard study in the Upper Watershed. The specific request was for the completion of Phase 2 and Phase 3 summarized below. Note that Phase 1 which was data collection for future floodplain mapping in the upper watershed was completed between March 2023 and March 2024.

- Phase 2 – Rideau Lakes hydrology + Rideau Lakes hydraulics and floodplain & erosion mapping.
- Phase 3 – Tay Valley hydrology + Tay Valley hydraulics and floodplain & erosion mapping.

The RFP was posted on Biddingo.com (a government contract portal) on July 23, 2024 and proposals were due on August 30, 2024.

Proposals were received from the following consultants:

Consultants	Bid*
Aquafor Beech Limited	$381,923.06
Kontzamanis Graumann Smith MacMillan Inc. (KGS Group)	$306,481.62
Water's Edge Environmental Solutions Team Ltd.	$1,128,992.61
WSP Canada Inc. (WSP)	$695,769.26

* Bid amount includes GST + 15% Contingency

RVCA staff evaluated the technical proposals (without seeing the cost) based on a scoring matrix. The scoring matrix assigned the following interim weighting:

- 20%: Experience of Bidder
- 20%: Project Manager's Experience
- 25%: Capability to Execute the Mandate
- 25%: Work Schedule, Deliverables Presentation, and Mandate Understanding
- 10%: Quality of Proposal

If a score of 75% was obtained (which was the case for all four consultants), then price offer envelopes were opened, and each consultant was given additional points based on their costs compared to average costs of all bids.

Aquafor Beech Limited was selected as the preferred bidder based on the results of the scoring matrix.

It is anticipated that the project will be completed in about 26 months after initiation.

Financial Considerations
This project will not impact RVCA's operational budget as it will be funded through external funding and/or RVCA's reserves.

The RVCA has submitted two funding applications to the FHIMP program seeking 50% funding for this project as well as mapping studies in the City of Ottawa. If successful, the RVCA will receive $191,000 for the Upper Watershed Floodplain and Erosion Hazard Study.

Adherence to RVCA Policy
The tendering of this project was in accordance with RVCA's purchasing policy.

Link to Strategic Plan
This project supports Strategic Direction #2, Priority #6:

- Focus new or updated regulatory mapping in areas where there is development pressure.

9.0 **Perth Golf Course Floodplain Amendment**
Report #: 02-241024

To: RVCA Board of Directors
From: Tyler Bauman, P.Eng.
Water Resources Engineer
Date: October 10, 2024

- [ ] For Information
- [ ] For Direction
- [X] For Adoption
- [ ] Attachment – 1 page

Recommendation:

THAT the Board of Directors of the Rideau Valley Conservation Authority adopts the attached floodplain amendment for the Perth Golf Course property.

Purpose
To seek approval to amend regulatory floodplain mapping on the Perth Golf Course property.

Background
In February 2013, Tay River Flood Risk Mapping was completed from Glen Tay Road to Lower Rideau Lake which included the Town of Perth and select tributaries such as Grants Creek. In accordance with RVCA's Six Year Natural Hazards Mapping Strategy, which was approved by the Board in October 2023 (Staff Report 03-231026), natural hazard mapping for the Tay River (Christie Lake to Lower Rideau Lake) is scheduled to be updated by the RVCA in 2027. When hazard mapping is updated for the Tay River, new high quality LiDAR elevation data acquired by the RVCA in 2022 will be used.

In advance of RVCA's mapping update in 2027, the RVCA was approached by the owner of the Perth Golf Course property seeking to refine the regulatory flood mapping on their property. Proponents are welcome to present new information to be considered by the RVCA for an amendment to regulatory floodplain mapping outside of RVCA's regularly scheduled mapping study updates, however costs are borne by the proponent.

Analysis
The proponent's engineering consultant used RVCA's LiDAR-derived topographic data to refine the floodplain on the subject lands. No new modeling was conducted, and no changes were made to the regulatory flood elevation as part of this process. The consultant followed RVCA's methods for floodplain delineation and provided a proposed amendment for review on May 31, 2024. The proposed amendment was reviewed by RVCA engineering staff and further processed by GIS staff to smooth the floodplain extents for better visual fit with the regulatory floodplain and to ensure it met the standards for regulatory floodplain mapping, including RVCA's internal policies.

RVCA engineering and GIS staff both deem the attached floodplain amendment accurate and suitable for regulation.

Financial Considerations

The cost of updating the regulatory flood risk mapping on the Perth Golf Course property was borne by the property owner.

Attachments

- Figure 1 – RVCA Regulated Floodplain & Proposed Amendment on the Perth Golf Course Property

Rideau Valley Conservation Authority

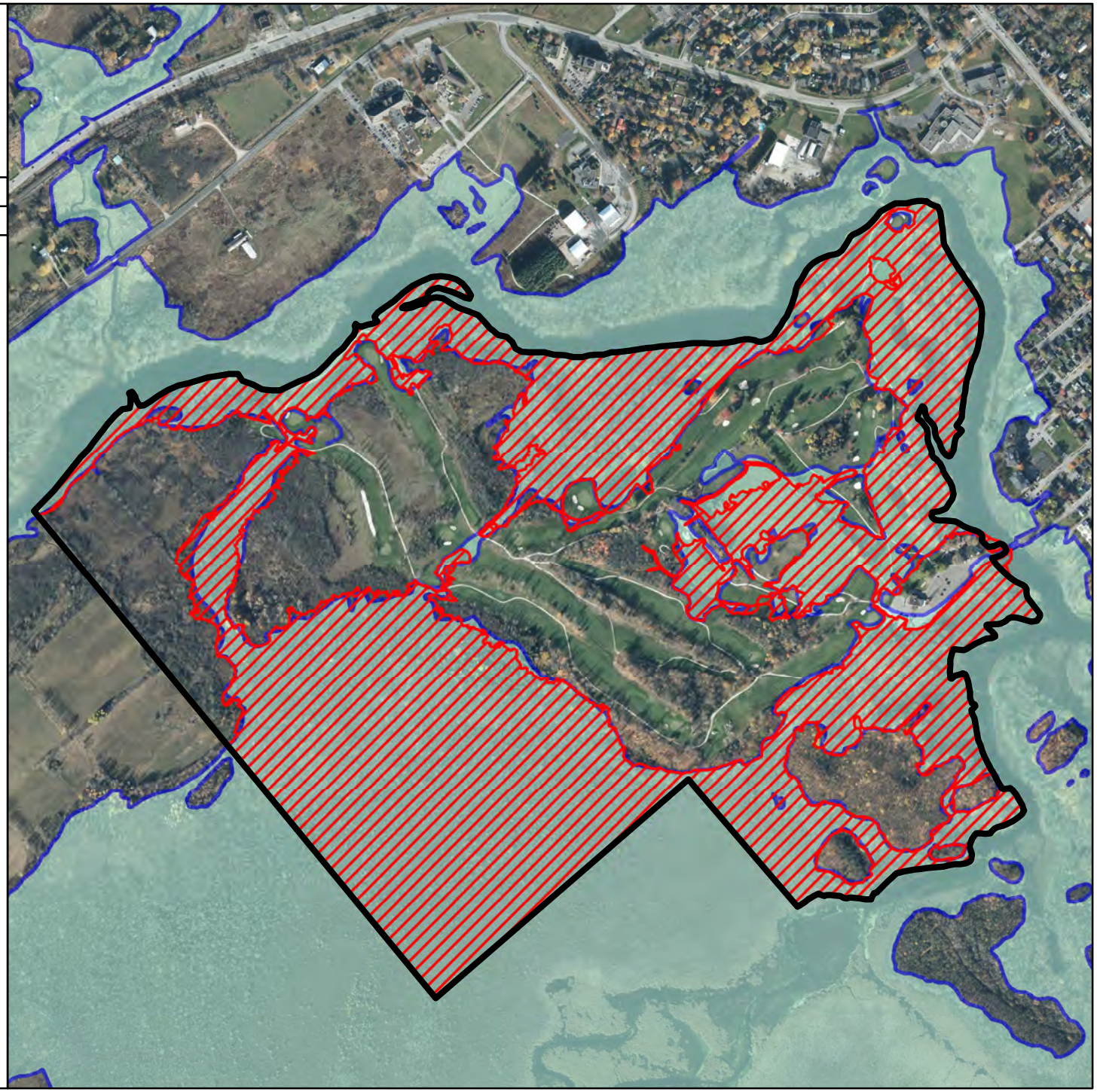
Projection note: U.T.M. Zone 18 - NAD 83 Datum

Date Modified: 17/Oct/2024

Perth Golf Course

Figure 1
RVCA Regulated Floodplain & Proposed Amendment

- Amendment Limits
- Proposed Floodplain
- Current Regulatory Floodplain



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10.0 Development Activity Policies and Procedures
Report #: 03-241024

To:	RVCA Board of Directors		For Information
From:	Eric Lalande, RPP	X	For Direction
	Senior Planner	X	For Adoption
Date:	October 17, 2024	X	Attachment -105 pages

Recommendation:

THAT the Board of Directors of the Rideau Valley Conservation Authority adopt the attached *Development Activity Policies and Procedures* document to take effect November 1, 2024, and that this document supersede RVCA's previous development activity and transition policies regarding the administration of Section 28 of the *Conservation Authorities Act;*

AND THAT the Board receive the attached *Technical Review Compendium* for information and direct staff to implement these and other such guidelines to support the preparation and review of permit applications.

Purpose
To adopt updated policies and procedures for the administration of Section 28 of the *Conservation Authorities Act* and *Ontario Regulation 41/24*.

Background
Effective April 1, 2024, the 36 individual conservation authority regulations under section 28 of the *Conservation Authorities Act* were replaced with *Ontario Regulation 41/24* (*Prohibited Activities, Exemptions and Permits*) and complimentary amendments to Part VI (*Regulation of Areas Over Which Authorities Have Jurisdiction*) and Part VII (*Enforcement and Offences*) of the Act.

The purpose of these legislative changes was to streamline approvals under the Act and establish a standardized approach to regulating natural hazards, wetlands and watercourses across all conservation authorities. Key changes included:

- The definition of watercourse was changed.

- The regulated area around regulated wetlands was reduced from 120 m to 30 m.
- The tests for issuing permits were changed
    - activities not likely to affect the control of flooding, erosion, dynamic beaches or unstable soil or bedrock; and
    - activities 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 are met. (Development Activity Policies and Procedures)
- Certain development activities were exempt from requiring a permit.

To enable staff to implement these changes on April 1, conservation authorities developed Transition Policies and Procedures which were adopted by RVCA's Board of Directors on March 28, 2024 (Staff Report #: 2-240328).

Conservation authorities then began updating their existing policies, procedures and resources to reflect the legislative changes.

On May 23, 2024, RVCA staff presented draft Development Activity Policies and Procedures to the Board (Report #: 02-240523) and obtained approval to proceed with public consultation. Throughout June and early July, RVCA staff undertook the following consultation steps:

- The document was posted on RVCA's website for a minimum 30-day comment period and was made available through other means upon request.
- The consultation process and timeline were advertised and promoted across the watershed through a press release, newspaper advertisements, social media posts and this information was also shared and posted by many member municipalities and other key partners including local OFA.
- A letter was sent to the Algonquin Consultation Office (early June)
- Letters were sent to key stakeholders (early June)
- Meetings were held with local OFA member service representatives and some local chapters (June)
- A municipal information session was held (June 7)
- Two open houses were held (June 20 and 25)
- Staff were also available throughout the consultation period to speak one-on-one with individual property owners, municipalities, developers and stakeholders.

Analysis

Following the completion of public consultation, staff summarized the comments received and changes made to the policies and procedures document (see Tables 1 and 2).

The consultation process also demonstrated a need for technical review guidelines to assist staff and applicants during the application process. These guidelines will:

- Provide added transparency to the review process.
- Provide clearer expectations and accountability to applicants working through a permit application process.
- Facilitate more consistency in the review and approval of permits.
- Allow for responsive guidance with up-to-date best practices and industry standards to support strong decision making.

Technical review guidelines are not part of the policy document and are not approved by the Board, they are a set of technical guidelines that will be regularly reviewed and updated by staff. These guidelines will provide greater clarity and transparency when people are applying for a permit. They will be an important tool during pre-consultation to improve the quality of application submissions and help staff expedite review timelines. The breadth and scope of each guideline will vary, but all guidelines will be consolidated into a Technical Review Compendium to be posted with the policy and procedures document on RVCA's website to ensure ease of reference for applicants.

Once the attached *Development Activity Policies and Procedures* are approved:

- They will direct what development activities can be approved at a staff level.
- Applications for development activities that do not meet these policies cannot be approved at a staff level but can request a Hearing before the Executive Committee to seek approval.
- Approval of this document will rescind and replace RVCA's current policies from 2018 and its transition policies approved in March 2024.

Input from Other Sources

- In 2019, an ad hoc committee of the Board (including all members of the Executive Committee) provided input on draft policies for boathouses and agricultural drains.
- In 2021, RVCA's multistakeholder Policy Working Group provided input on all areas of policy (the committee had members representing municipalities, developers, aggregates and agriculture).

- In 2024, Conservation Ontario provided a template policy to assist conservation authorities which reflected recent legislative changes.
- In 2024, staff worked with neighbouring conservation authorities (South Nation, Mississippi and Cataraqui) and reviewed their policies to be consistent where possible.
- A legal review of the draft policies and procedures was also completed.

Financial Considerations

While these legislative changes may alter the volume of certain types of applications, it is anticipated that the overall volume of applications will remain similar. Staff will monitor any impacts and include them in reporting to the Board.

Legislative Considerations

Section 12 of Ontario Regulation 41/24 requires conservation authorities to develop policies and procedures with respect to permit applications and its review process that, at a minimum, include the following:

1. Additional details regarding the pre-submission consultation process described in section 6 as well as additional details related to complete permit application requirements.
2. Procedures respecting the process for a review under section 8.
3. Standard timelines for the authority to make a decision on permit applications following a notification that an application is complete under subsection 7 (2), as the authority determines advisable.
4. Any other policies and procedures, as the authority considers advisable, for the purpose of administering the issuance of permits under Part VI of the Act.
5. A process for the periodic review and updating of the authority's policy and procedure documents, including procedures for consulting with stakeholders and the public during the review and update process, as the authority considers advisable.

Link to Strategic Plan

Approval of updated policies would complete Priority #3 under Strategic Direction #2:

- *Update development review policies to guide development away from natural hazards (areas prone to flooding, erosion, or slope failure) and natural features (wetlands, shorelines, and watercourses). Ensure updated policies are effective, balanced and user friendly.*

Attachments:

- Table 1: Summary of Comments and Changes Following Public Consultation.
- Table 2: Summary of Additional Changes made by RVCA Staff
- *Development Activity Policies and Procedures*: *Policies and Procedures for Development Activity permit applications made under Section 28.1 of the Conservation Authorities Act* (October 17, 2024)
- Sample *Review Guideline Compendium*

Table 1: Summary of Comments and Changes Following Public Consultation

Comment	Action	Notes
Graphics and illustrations would improve interpretation	Additional graphics have been added where possible	Staff will consider further graphics and illustrations in future updates.
Add guidance towards protection of aquatic and terrestrial habitat	Not permitted	Natural heritage is no longer in the scope of Section 28 of the Act
Add prohibited activities	Change made	Prohibited Uses section added
Add Tay and Jock River are not explicitly included as regulated watersheds	Not required	Policies reference all tributaries of the Rideau River (which include the Tay and Jock Rivers)
Regulation limit should be 30 metres from watercourses and shorelines	Not permitted	Regulation limits are set by the CA Act and provincial technical guidelines.
Need to have a link in policy to municipal policies and 120 m of PSWs and does not prevent requirements for an EIS	Not permitted	Policies reference the need to pre-consult with municipalities and that other approvals may apply.
Permit agents to sign permits on behalf of owner	Not advised	Legal concern with agent agreeing to binding conditions on the property owner
Require posting of sign for permits	Not required	Would be implemented as condition of approval

Require notification to municipality of permit being issued	Not required	This is an administrative process that occurs in consultation with municipalities and applicants.
Update restricted use section to align better with PPS	Policies clarified	Minor changes to language within section
One-zone concept floodway should prohibit development with strict application of the PPS	Not permitted	Permit issuances are required to align with the tests in the CA Act
Consider prohibiting redevelopment in floodplain	Not permitted	Permit issuances are required to align with the tests in the CA Act
Italicize defined terms	Change made	Defined terms have been italicized
Wetland boundary terminology confusing	Policies clarified	Wetland policies have been revised
Preference for no negative impacts on wetlands or on their ecological function	Not permitted	Ecological function is no longer in the scope of Section 28 of the CA Act
Recommend rewriting Conservation Project policies (recommended changes related to biodiversity, connectivity, wetland complexes, and natural heritage components)	Not permitted	Recommended changes are outside the scope of Section 28 of the CA Act

Note: All comments above were submitted on behalf of Friends of the Tay Watershed

Table 2: Summary of Additional Changes Made by RVCA staff

Comment	Action
Clarify legislative references	Amended various sections for improved language related to legislation, no changes to policies
Clarify how multiple instances of an exempted activity are addressed	Exception applies in the singular/first instance of a development activity
Add emergency works to RVCA exceptions	Added clause to RVCA exception section.

	Policies would now exempt works required to address imminent danger to public health and safety from requiring a permit.
Add floodplain amendment procedures	Added Section 2.5.2, adds transparency to floodplain amendment process
Add expiration dates to stamped plan approvals	Added language for expiration date, no policy change but clarifies permit approval process
Revise complete application requirements section	Broadened language to clarify gaps in draft policy
Revise floodproofing section and add floodproofing hierarchy to clarify intent to maximize protections where possible	Added floodproofing hierarchy and minimum standards table. Also reorganized policies for better readability.
Reorder and regroup policies for improved readability	Found more logical places for some policies rather than being pulled out as a separate section. Added Other Development Activity Policy Section to consolidate Non-Hazard Specific Development Policies For Ease of use and reduced repetition. Moved Low Intensity and Passive Recreation Uses to Other Development Activity Policy Section.
Update wetland policies based on provincial direction	Removed date references and section on new dwellings in wetlands
Ensure compliance with AODA	Policies adjusted to ensure RVCA provides for AODA considerations in Built Environment Approval Process
Change best management guidelines to technical review guidelines	Amended references, no change to policies
Section 2.4.3 RVCA Exceptions	Removed Beaver Dam exception as it is not a “development activity”, moved to FAQ section.
Clarify that existing dwellings that are adjacent to a floodplain may permit a deck or balcony to extend into the floodplain conditionally	Added policy to clarify that extensions are permitted where appropriate (cantilevering or unenclosed decks).
Address conversion of cathedral ceilings, attic space or other components of a dwelling to add second storey or additional gross floor area through internal renovation to bypass policy restrictions	Policy language added to capture calculation for cathedral ceilings and potential conversion.

Add technical review guidelines as a separate document	Consolidated into Review Guideline Compendium
Add a policy that allows for safe access to be established for existing restricted uses	New policy wording added
Various language changes	Clarifications and consistency improvements throughout document and address potential loop holes to circumvent policy intent
Include tile drainage under RVCA Exceptions within 30 metres of a wetland	Regulation exceptions did not include tile drains within 30 metres of a wetland, this policy change will enable more flexible for minor projects
Remove exception for habitable vehicles	Added a question to the Frequently Asked Question guide distinguishing it from a development activity, making the exception redundant.
Add Prohibited Uses Section	Section provides clarity on types of projects that won't be supported at a staff level
Modify Wetland Offsetting to clarify provincial/federal projects or infrastructure associated with an Environmental Assessment	

Rideau Valley Conservation Authority

Revised Draft

Development Activity Policies and Procedures

Policies and procedures for *development activity* permit applications made under Section 28.1 of the *Conservation Authorities Act.*

November 1, 2024

Version 1.0.0

Department	Program	Review Period	Policy Number
Regulations	Section 28	Annual	REGS-01-24

Version Number	Approved By	Resolution	Effective Date
1.0.0	Board of Directors	x-xxxxx	November xx, 2024

Using this Document

a. This document has been prepared to provide direction, clarity, and transparency on how the RVCA administers and implements Section VI of the *Conservation Authorities Act* and Ontario Regulation 41/24.
b. Reference should be made to the Act and regulations under the Act for the complete legal text.
c. This document is to be read in its entirety as the policies and procedures are interconnected and it is common for more than one natural hazard to apply to a property, meaning all relevant sections of the document must be applied.
d. Where there is a conflict between the text of the *Conservation Authorities Act* or its regulations and this document, the text of the Act and regulations shall prevail.
e. Where a conflict arises between policies in this document, the most restrictive policies shall prevail.
f. Permits issued in accordance with this document are limited to the responsibilities set out in Part VI of the *Conservation Authorities Act* and *Ontario Regulation* 41/24, *Prohibited, Activities, Exemptions and Permits* and do not represent or supersede approvals required under any other Act or legislation.
g. All terminology shall be considered to have their ordinary meaning as defined by common usage except as defined specifically by this document. Defined terms are listed alphabetically in the Definitions section of this document and are shown in italics for ease of reference.

Contents

1 Roles and Responsibilities

1.1 History of Conservation Authorities

The *Conservation Authorities Act* was enacted in 1946 and enables the creation of conservation authorities in Ontario. The Act was created in response to erosion, drought, flooding, and declining water quality, recognizing that these and other natural resource initiatives are best managed on a *watershed* basis.

In 1956, the Act was amended to enable conservation authorities to prohibit *fill* in *flood plains* in response to the loss of life and economic impact of Hurricane Hazel. These regulatory powers were then refined over the years to additionally prohibit or regulate *interference* with *wetlands*, alterations to shorelines and *watercourses*. Most recently, the Act was amended in 2024 to regularize province-wide conservation authorities in delivering its mandate to protect public health and safety and protect against damage to property and investments.

1.2 The Purpose of Regulating Development Activities

Flooding, erosion, dynamic beaches and unstable soil and bedrock are naturally occurring physical processes that continuously shape the *watershed*. Historically, Ontario's waterways have been desirable areas for settlement and economic activity as they provided a means of transportation, a source of drinking water and a location for the construction of mills or other industries. Today, people enjoy the amenities associated with living near water or overlooking slopes. By developing within *hazardous lands*, it places public health and safety at risk and has led to losses of life, property damage and social disruption, that can otherwise be prevented with appropriate natural hazard management.

Conservation authorities, municipalities, provincial ministries, federal agencies and landowners are tasked with working together to design communities and direct *development activity* away from natural hazard areas to:

a. prevent loss of life.
b. minimize property damage and social disruptions.
c. avoid costly emergency operations, evacuations, disaster relief and remedial works.
d. ensure *development activity* does not aggravate existing hazards or create new hazards.
e. require mitigating measures for works to prevent individually or cumulatively an increase in flooding, erosion or adversely affect *watercourses* or *wetlands* the loss of which can increase flooding and erosion frequency and severity.

2 Regulation Procedures

The procedures in this section provide an overview of applicable legislation empowering the RVCA to administer the *Conservation Authorities Act*, R.S.O. 1990 and its implementing Regulations. Specifically, Part VI of the *Conservation Authorities Act* sets out how various *development activities* are regulated. This section expands on the Act to provide clarity and transparency to the administration, enforcement and implementation of approvals through the *development activity* permit application process.

2.1 Prohibited Activities

Section 28(1) of the *Conservation Authorities Act* sets out that 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 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.

2.2 Permit Issuance

Section 28.1 of the *Conservation Authorities Act* establishes the tests for approval of permit applications. A conservation authority may issue a permit, if in the opinion of the authority:

1. the activity is not likely to affect the control of flooding, erosion, dynamic beaches or unstable soil or bedrock;
2. 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
3. any other requirements that may be prescribed by the regulations are met.

This document sets out policies and other requirements to guide the review of permit applications for approval by the conservation authority as prescribed.

2.3 Jurisdiction and Mapping of Regulated Areas

The *Conservation Authorities Act* and *Ontario Regulation 41/24* provide the framework for mapping and regulation of lands at risk due to the presence of natural hazards. The *watershed* jurisdiction of the conservation authority is established under section 3 of the *Conservation Authorities Act*. The RVCA jurisdiction is defined by all lands that drain to the Rideau River and lands that drain to the Ottawa River through the Stillwater, Graham, Pinecrest, Greens, Bilberry, Cardinal and Beckett's Creek subwatersheds.

Mapping of *regulated areas* is undertaken by the RVCA as resources allow and is reviewed and updated on an ongoing basis. Updates to existing mapping and new hazard mapping are generally subject to public consultation. Where *regulated areas* have not been mapped, or where there is a conflict between the regulation mapping and the description in the *Conservation Authorities Act*, the text of the Act prevails.

The extent of the *regulated area* identifies where the regulation applies and where a permit is required prior to proceeding with a *development activity*. It does not represent a development setback, land use designation, zone, or a specific *development* limit. The *regulated area* includes flooding and erosion hazards associated with riverine systems and lake shorelines, along with *wetlands*, *watercourses*, and other areas within 30 metres of a *wetland*. In some cases, the delineation of a *regulated area* may require verification in the field and shall be based on the values indicated in Table 1.

Table 1: *Regulated Area* Limit Delineation Table

Hazard or Feature	**Natural Hazard *Regulated Area***
Flood Plain	Mapped *flooding hazard* + 15 metres
Slope Hazards	Mapped *erosion hazard* + 15 metres, or where delineated through an approved site-specific study
Meander Belt	20 x *bankfull width* + 15 metres or delineated through an approved site-specific study
Dynamic Beach	Mapped *dynamic beach hazard* or 30 metres from waterfront lands + 15 metres
Inland Lake	The 100-year flood level + wave uprush allowance + 15 metres
Watercourse	Top of channel bank or side + 15 metres
Wetland	Mapped *wetland* boundary + 30 metres

2.3.1 Regulated Area Delineation and Amendment

The limits of a *regulated area* may require revisions periodically after updated information being received and verified by the RVCA. This information may include information gathered on existing conditions, known extents of a natural hazard or due to the completion of permitted *development activities* (such as

balanced cut and fill). Amendments to a mapped *regulated area* shall require field verification and detailed documentation from qualified professionals.

Requests for amendment to a mapped *regulated area* may be initiated by landowners, however, the RVCA shall maintain final authority related to the delineation or change of any mapped *regulated area*.

Where an amendment to mapped *regulated area* is considered, the amendment shall only be finalized upon the completion of the following general process:

1. Proposed works reviewed and approved under Section 28 permit process, or confirmation of grades that existed prior to regulation, or documented site-specific delineation.
2. *Development activity* (i.e. *balanced cut and fill*) completed, where applicable.
3. Receipt of detailed site-specific information (i.e. as-built grading plan), where applicable
4. RVCA technical review and staff recommendation for amendment.
5. General Manager or Board of Directors approval, where applicable.
6. RVCA amends regulatory mapping.

2.4 Regulation Exceptions

Some *development activities* are granted an exception from requiring a permit. Property owners are encouraged to verify with RVCA staff prior to proceeding with any activity set out in Section 28(1) of the Act, to confirm if the scope of work qualifies for an exception and may proceed without a permit. Exceptions listed below are limited to approval requirements under the *Conservation Authorities Act* and do not replace or supersede requirements of any other applicable provincial legislation or municipal by-laws.

2.4.1 Aggregate Resources Exceptions

Prohibitions set out in this document do not apply to an activity approved under the *Aggregate Resources Act* after December 18, 1998.

2.4.2 Prescribed Exceptions

Section 5 of *Ontario Regulation 41/24* prescribes general exceptions to the regulation, where obtaining a permit is not required, for specific types of *development activities*, as follows:

1. The construction, reconstruction, erection or placement of:
   a. A seasonal or floating dock that, is 10 square metres or less, does not require permanent support structures, and can be removed in the event of flooding,
   b. A rail, chain-link or panelled fence with a minimum of 75 millimetres of width between panels, that is not within a *wetland* or *watercourse*,
   c. Agricultural in-field erosion control structures that are not within and that do not have any outlet of water directed or connected to a *watercourse*, *wetland* or river or stream valley,
   d. A non-*habitable accessory building* or *structure* that, is incidental or subordinate to the principal *building* or *structure*, is 15 square metres or less, and is not within a *wetland* or *watercourse*, or
   e. An unenclosed detached deck or patio that is 15 square metres or less, is not placed within a *watercourse* or *wetland* and does not utilize any method of cantilevering.
2. The installation of new tile drains that are not within a *wetland* or *watercourse*, within 30 metres of a *wetland* or within 15 metres of a *watercourse*, and that have an outlet of water that is not directed or connected to a *watercourse*, *wetland* or river or stream valley, or the maintenance or repair of existing tile drains.
3. 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 an area where subsection 28 (1) of the Act applies.
4. The 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.
5. The maintenance or repair of municipal drains as described in, and conducted in accordance with the mitigation requirements set out in the Drainage Act and the *Conservation Authorities Act* Protocol, approved by the Minister and available on a government of Ontario website, as it may be amended from time to time.
6. 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.

2.4.3 RVCA Exceptions

To facilitate *development activities* without the need for a required permit approval, the RVCA provides for the following exceptions where certain criteria are met:

1. Maintenance of a *building* or *structure* which meets all of the following criteria:
   a. no increase in the number of *dwelling units*.
   b. no change of use or expansion to a restricted use.
   c. no increase to the *gross floor area* or *habitable floor space.*
   d. no increase to the existing footprint.
   e. no change to or modifications that would compromise a foundation wall.
   f. no relocation of electrical mechanical or heating services to an area below the regulatory *flood plain*.
2. Demolition of a *building* or *structure* which meets all of the following criteria:
   a. does not result in *site alteration*.
   b. backfilling does not raise the average grade and slope.
3. Non-structural *agricultural activities* and tile drains located outside of *wetlands.*
4. Maintenance of an off-line *stormwater management facility*, that does not affect the control of flooding or erosion.
5. New or the replacement of existing utility service connections located outside of a *watercourse* or *wetland*.
6. Maintenance of existing roadside ditches; not including outlets to a *watercourse*, a roadside ditch that forms part of a *watercourse* or is within the regulation limit of a *wetland*.
7. Removal of debris or obstructions impacting existing drainage related to:
   a. Culverts.
   b. Ditches.
   c. Tile outlets.
8. A rail, chain-link or panelled fence with a minimum of 75 millimetres of width between panels, where the passage of water is not inhibited and supports and foundations result in no change to existing grades.
9. Installation and maintenance of sustainable *shoreline protection work*s through the use biodegradable coir logs and vegetation planting, excluding any excavation or placement of covering topsoil greater than 0.15 metres.
10. Emergency protective works associated with damages or imminent danger to public health and safety, where exemption may be subject to retroactive approval and condition.

The RVCA may withdraw the specific and individual applicability of an exception in this subsection at any time, where it is in the opinion of the RVCA the protection of public health and safety is placed at risk or there is potential for property damage to occur.

2.5 Permit Phases

There are broadly five (5) phases in the permit application process:

1. Pre-submission Consultation.
2. Submission of a "Complete Application".
3. Technical Review, Commenting and Application Refinement.
4. Decision.
5. Hearings or Appeals, where requested.

2.6 Pre-Submission Consultation

Prior to the submission of an application for a permit, all applicants are strongly encouraged to consult with RVCA staff. Section 6 of *Ontario Regulation 41/24* speaks to pre-submission consultation and requires conservation authorities to engage in pre-submission consultation if requested by an applicant. The pre-submission consultation process is intended to:

1. Identify information that must be submitted as part of a Complete Application (e.g. studies, drawings, etc.).
2. Potentially undertake a site visit to verify the presence or absence of regulated features such as valleylands, *wetlands* and *watercourses*.
3. Clarify the general process that is required to obtain a permit.
4. Provide a preliminary determination of compliance with the policies and procedures and feedback on how to achieve compliance if lacking.

Pre-consultation discussions are without prejudice and shall not be construed as approval or considered a substitute for a required approval of *development activity* or *site alteration.*

The scope of the proposal will determine the extent and formality of the pre-consultation process. For complex or major applications, applicants should contact RVCA staff to arrange a formal meeting which could involve various staff, external municipal, provincial and federal representatives who may have an interest in the review of the proposed activity. Pre-consultation meetings should also include input on the terms of references for technical studies to ensure that the matters of interest are sufficiently addressed. The RVCA may arrange a separate Technical Scoping Pre-consultation Meeting with technical consultants as may be identified through the Pre-consultation process.

Where proposals also require approval under the *Planning Act*, joint Pre-consultation meetings with the relevant municipality will be encouraged.

2.7 Complete Application Requirements

A permit application submitted for *development activity* is required to provide sufficient information to allow the RVCA to adequately make a decision on the request in consideration of applicable policies. The concept of providing

sufficient information is referred as a “complete application” and outlined in this document.

2.7.1 Ownership Requirements

A permit application may only be made by the registered owner of the property where *development activity* is proposed to take place. The owner may authorize an agent to manage the application process on their behalf. Where a project extends beyond a single property, separate applications will be required for each individual parcel.

2.7.2 Complete Application Submission Requirements

An application will only be considered complete upon the submission of the following, including prescribed requirements pursuant to subsection 7(1) of Ontario Regulation 41/24:

1. Completed application form.
2. Payment of application fee.
3. A description of the works proposed.
4. Appropriate to-scale plans/drawings including a key map and location of works showing the type and location of the proposed *development activity* or a plan of the area showing plan view and cross-section details of an activity to straighten, change, divert or interfere with the existing channel of a *watercourse* or change or interfere with a *wetland*.
5. The proposed use of any *buildings* or *structures* following completion of the *development activity* or a statement of the purpose of an activity to straighten, change, divert or interfere with the existing channel of a river, creek, stream, or *watercourse* or to change or interfere with a *wetland*.
6. The start and completion dates of the *development activity* or other activity
7. A description of the methods to be used in carrying out the activity to straighten, change, divert or interfere with the existing channel of a *watercourse* or to interfere with a *wetland*.
8. Detailed post-effectiveness monitoring plan for 1-, 3- and 5-year post-construction for channel reconstruction projects
9. Construction drawings including plan, profile and elevations of *buildings*.
10. Grading plans with existing and proposed.
11. Drainage details before and after the *development activity* or other activity.
12. Complete description of any type of *fill* proposed to be placed or dumped.
13. Confirmation of authorization for the proposed *development activity* or other activity given by the owner of the subject property, if the applicant is not the owner.
14. Any other technical information, studies, or plans RVCA staff requires including information requested during pre-submission consultations between the authority and the applicant.

The RVCA has prepared technical review guidelines to assist in providing clarity and transparency in the review of an application. The RVCA maintains a

Review Guideline Compendium as outlined later in this document, with details on how to access it, to assist in the submission of applications.

2.7.3 Application Deemed Complete and Notice Requirements

To ensure an application may be appropriately assessed, including the technical aspects of a proposal against the tests set out in subsection 28.1 (1) of the *Conservation Authorities Act*, the submission must include the compulsory information as specified by this policy and procedures document.

The application will not be processed if information provided with the application is unclear as to the work proposed or is insufficient to allow RVCA staff to complete a technical review and to make recommendations of approval or refusal. An applicant will be notified in writing within 21 days of receipt of a submission and fee payment, whether an application is complete in accordance with Section 7 of *Ontario Regulation* 41/24.

The review to determine if an application is complete only confirms that all required items have been provided and does not prejudge that the contents of the application are satisfactory for a recommendation to approve or deny a permit.

Revisions or clarifications requested by the RVCA as the result of a technical review are not considered requests for new information, studies, technical information or plans.

2.8 Requests for Review

Pursuant to subsection 8(1) of *Ontario Regulation 41/24*, an applicant may request, in writing a review of the application by the RVCA General Manager, or delegated alternate, if:

1. The applicant has not received notice from the authority within 21 days in accordance with subsection 7(2).
2. The applicant disagrees with the authority's determination that the application for a permit is incomplete.
3. The applicant is of the view that a request by the authority for other information, studies or plans is not reasonable.

Pursuant to subsection 8(2) of *Ontario Regulation 41/24*, a review request shall be completed by the RVCA no later than 30 days and either:

a. confirm that the application meets the requirements of subsection 7(1) of the regulation and is complete or provide reasons why the application is incomplete.
b. provide reasons why a request for additional information, studies or plans under clause 7(1)(i) of the regulation is reasonable or withdraw the request for all or some of the information, studies or plans.

2.9 Application Fees, Fee Reconsiderations, Fee Appeals

In accordance with subsection 21.2(4) of the *Conservation Authorities Act*, the RVCA is responsible for setting and collecting fees. Fees are set out in annual fee schedules approved by the RVCA Board of Directors, pursuant to subsection 21.2(6) of the *Conservation Authorities Act,* for the administration and review of applications and must be paid in full when submitting an application.

Fees for a technical review may be triggered when a technical report(s) is required for the review of an application to deem it complete. The technical review fee is based on the number of technical reports submitted and by discipline. The technical review fee shall be paid at the time of submission of technical reports or subsequent if multiple reviews are necessary due to revisions through the application process.

In the review of technical studies, there may be a need for RVCA to retain external expertise to assist in the review. The cost a third-party peer review shall be borne by the applicant. Costs associated with a third-party peer review may be deferred until known after reviews have taken place, however they shall be required to be paid prior to the release of comments or decision being made for a permit.

Pursuant to subsection 21.2(7) of the *Conservation Authorities Act* a Fee Policy has been adopted by the RVCA Board of Directors and is available online at rvca.ca. The RVCA reviews its fee policy and schedules annually and makes adjustments as needed to ensure that cost recovery is appropriate.

Pursuant to subsection 21.2 (13) of the *Conservation Authorities Act* applicants may request that the conservation authority reconsider a fee. The RVCA shall make its decision within 30 days after receiving the request in accordance with RVCA's Fee Policy and section 21.2(14), (15) and (16) of the Act, which include the option to appeal fees to the Ontario Land Tribunal.

2.10 Processing of Complete Applications

All applications are reviewed to determine if the proposed *development activity* meets the legislative requirements and tests of both the *Conservation Authorities Act* and Ontario Regulation 41/24 and that they conform to the policies set out in this document. RVCA staff may require consultation with an applicant during the review process to confirm, clarify or request revisions to submitted material in an effort to assist in the successful completion of a permit application.

Site visits are typically conducted to confirm on-site or nearby features and application information. Site visits can also be used to determine and/or stake the limits of natural features and natural hazards.

When both a *Conservation Authorities Act* Section 28.1 permit application and a *Planning Act* application is required, RVCA staff will coordinate the review to ensure that permit technical matters are fully addressed through the planning process as much as possible. This approach streamlines and reduces or eliminates duplication of review by ensuring that most, if not all, matters are addressed proactively prior to the permit process under the *Conservation Authorities Act*.

If an application remains inactive for one (1) year after submission of materials or the issuance of RVCA comments regarding a submission, the RVCA will provide notice to the applicant that the application is considered abandoned. The RVCA will close the file and fees paid are non-refundable.

2.10.1 Decisions

Upon review of a complete application, RVCA staff will proceed to either:

a. Issue an approved permit, with or without conditions.
b. Advise the applicant that the application cannot be approved at a staff level.

Where an application cannot be approved at a staff level or where an application is approved with conditions that the applicant does not agree with, the applicant shall be notified of their right to request a hearing before the RVCA Executive Committee.

Approved permits must be signed by the owner and an RVCA delegated authority to be valid and a sign provided by the RVCA must be posted in a conspicuous location on the subject property during the duration of *development activity*.

Approval granted by RVCA under *Ontario Regulation 41/24* shall not be interpreted as superseding or eliminating the need to fulfill the requirements of other federal, provincial and municipal bylaws, statutes, regulations and requirements.

2.10.2 Staff Delegated Approvals

Staff appointed by the RVCA Board of Directors are authorized to:

a. Approve and issue permits that:
    i. Comply with the policies outlined in this document.
    ii. Have a maximum period of validity of 24 months.
b. Extend a permit that was approved, for an additional period not exceeding a total of 60 months.

Minor deviations from the policies outlined in this document may be approved without requiring a hearing before the Executive Committee, where such approval would not be considered a significant policy departure, subject to the satisfaction and authorization by the RVCA General Manager.

2.10.3 Stamped Plan Approvals

Small scale or low risk *development activities* may be considered for approval without the need for a full permit. A Stamped Plan Approval may be granted, subject to RVCA staff discretion, and shall comprise of design drawings submitted for review being stamped and signed by authorized RVCA staff. Stamped Plan approvals shall serve as the permit itself, for the purposes of approval under the *Conservation Authorities Act*. A Stamped Plan may only be issued where there are no deviations from the RVCA Policies and Procedures, and no additional conditions required beyond adherence to the plan itself.

Works associated with a Stamped Plan approval shall be considered authorized for a time period not exceeding 2 years from the date of approval.

Eligibility for Stamped Plan approval will be considered on a project-by-project basis due to the scope of *development activity* and the natural hazards present in the area where works are to take place. Staff will determine eligibility as part of the review for complete application.

This process is intended to streamline simple reviews and provide faster approvals where there is no risk to public health, property damage, and no creation or exacerbation of a natural hazard. Examples of projects that may be considered for a Stamped Plan approval may include, but are not limited to decks, patios, swimming pools, open additions, *hardscaping* or *landscaping*, non-*habitable* detached *accessory structure*s, or projects that are within a *regulated area* but located outside of an identified hazard.

2.10.4 Decision Timelines

Decision timelines are legislated by subsection 28.1(22) of the *Conservation Authorities Act*, which requires the RVCA to provide a decision on a permit application within 90 days of receipt of a complete application. This timeline is inclusive of the time associated with deeming of an application for completeness.

If the RVCA has not provided notice of a decision within 90 days of a complete application, an applicant may file an appeal with the Ontario Land Tribunal.

2.10.5 Annual Reporting

The RVCA is required to prepare and publish an annual report that outlines statistics on permits, including reporting on timelines on permit applications, reviews and decision making.

2.10.6 Period of Validity and Extensions

Pursuant to subsection 11(1) of *Ontario Regulation 41/24*, the maximum period of validity of a permit, including any extensions, is 60 months (5 years), however most standard permits will be issued with a 24-month (2 year) period of validity.

Where a request, by the owner, for extension is received 60 days before the expiry of a permit, the RVCA may grant or refuse the request.

a. Extensions may be granted for a time period deemed appropriate for the work to be completed and may require updated information be submitted with the request or result in updated conditions. An extension or multiple extensions may not exceed a total maximum validity period of 60 months (5 years).
b. Refusals of a permit extension may be appealed to the Executive Committee, pursuant to subsection 11 of *Ontario Regulation 41/24.*

Expiry of a permit or failure to request an extension pursuant to Ontario Regulation 41/24, will require *that development activity* be considered as part of a new permit application.

2.11 Permit Revisions

Where a proposal is revised after the issuance of a permit but prior to completion of works, the permit may be amended/revised. An application to amend the permission along with any required information and fee must be submitted. Amendments can include changes to the proposal and/or changes to the conditions of approval. All revisions to a proposal that are inconsistent with the permission granted by the RVCA shall require subsequent approval from RVCA. If approved, the permit shall be amended to reflect the revised permission.

Where a significant revision results in a *development activity* that no longer meets RVCA policy, the amending application may require a hearing before the RVCA Executive Committee or may require a new permit application or may result in prior approvals being subject to cancellation.

2.12 Hearings

The RVCA Executive Committee is appointed by the RVCA's Board of Directors and is granted the authority to hold hearings under section VI of the *Conservation Authorities Act* and *Ontario Regulation 41/24*.

The applicant has the right to a hearing before the RVCA Executive Committee when:

a. The applicant objects to the conditions of approval.
b. RVCA staff cannot approve the application.
c. RVCA staff cannot extend a permit.
d. RVCA staff provides notice of permit cancellation.

The applicant must request a Hearing by submitting a written request to RVCA within 15 days of receiving a permit with conditions or a notice of refusal to issue a permit or extend a permit. Hearings will be held in accordance with the RVCA's Hearing Procedures, which are available online at rvca.ca, and the *Statutory Powers Procedures Act*.

Upon hearing evidence submitted by the applicant or their designated agent and by RVCA staff, the RVCA Executive Committee shall approve (with or without conditions) or refuse the application. Upon refusal of the application or if permission is granted subject to conditions, the RVCA Executive Committee shall give written reasons for its decision pursuant to subsection 28.1 (7) of the *Conservation Authorities Act*.

2.13 Appeals

Pursuant to subsection 28.1(8) of the *Conservation Authorities Act*, if, after a hearing by the RVCA Executive Committee a permit is refused or there are conditions on a permit to which the applicant objects, the applicant may, within 15 days of receiving reasons for the refusal, submit a request to the Minister responsible for the *Conservation Authorities Act* (Minister of Natural Resources and Forestry at the time the policies were approved) to review the decision. Subsections 28.1(9) to (19) of the *Conservation Authorities Act* set out the further process for a Minister's Review once a request has been made.

The Minister may refuse the permit or may order the RVCA to issue the permit, with or without conditions.

Pursuant to subsection 28.1(20) of the *Conservation Authorities Act*, within 90 days after receiving the reasons of decision from the RVCA Executive Committee to refuse a permit or approve with conditions the applicant may appeal the decision to the Ontario Land Tribunal.

An applicant may only pursue on appeal mechanism related to a permit application at a time.

2.14 Cancellation of Permits

Subsection 28.3(1) of the *Conservation Authorities Act* provides that the RVCA may, at any time, cancel a permit if it is of the opinion that the conditions of the permit have not been met.

Pursuant to Subsections 28.3(2) to (6) of the *Conservation Authorities Act*, before cancelling a permit, RVCA staff shall give notice of "intent to cancel" a permit to the holder of the permit indicating that the permission will be cancelled on a date specified unless the holder requests a Hearing by submitting a written request to RVCA within 15 days of receiving the notice. After the Hearing, a decision will be made to confirm, rescind or vary the decision to cancel a permit. If the permit holder objects to the decision of the RVCA Executive Committee an appeal of the decision may be made to the Ontario Land Tribunal.

2.15 Enforcement

Enforcement is an important component of any regulatory program to ensure compliance with provincial legislation and to protect people and property from natural hazards. Pursuant to section 30.1 of the *Conservation Authorities Act*, the RVCA has appointed staff as inspectors and Provincial Offences Officers for the purpose of ensuring compliance with legislation and permit requirements. These staff are responsible for liaising with applicants, inspecting properties investigating complaints, monitoring permit conditions and violations and undertaking all other enforcement work under the *Conservation Authorities Act* and *Ontario Regulation 41/24*.

2.15.1 Violations

A violation of *Ontario Regulation 41/24* generally occurs in two ways:

a. When *development activity* or *interference* have taken place in a *regulated area* without obtaining a permit.
b. When *development* or *interference* activities have taken place contrary to the conditions specified in an approved permit.

RVCA staff may carry out an initial investigation once the *development activity* is brought to the attention of the RVCA. Photographs and field notes of the activity are taken, and landowner contact is initiated. A determination regarding whether or not an offence has occurred is made and the appropriate action is

taken. RVCA staff shall work to find an amicable solution to bring a property back into compliance before escalating a matter to enforcement.

Part VII of the *Conservation Authorities Act* sets out enforcement powers and offences including provisions related to appointment of officers, entry without a warrant, searches, stop orders, offences, a limitation period, and rehabilitation orders.

The provisions of the *Conservation Authorities Act* and the *Provincial Offences Act* direct RVCA staff when investigating a violation. In addition to any penalty levied upon conviction, the RVCA may seek an order for rehabilitation of the site which may include removal of any *development activity* found to be in contravention of the *Conservation Authorities Act* and *Ontario Regulation 41/24*.

2.15.2 Stop Order

The RVCA may under Section 30.4 (1) of the *Conservation Authorities Act* issue a stop order, to a person to stop engaging in or not to engage in an activity if the appointed issuing officer has reasonable grounds to believe that:

a. The person has engaged in, is engaging in or is about to engage in the activity and, as a result, is contravening or will contravene Part VI of the *Conservation Authorities Act* or the conditions of a permit issued by the RVCA.
b. The activity has caused, is causing or is likely to cause significant damage that affects or is likely to affect the control of flooding, erosion, dynamic beaches or unstable soil or bedrock, or in the event of a natural hazard, the damage will or is likely to create conditions or circumstances that might jeopardize the health and safety of persons or result in damage or destruction of property; and
c. The order will prevent or reduce the damage.

2.15.3 Court Action

Penalties available to a Court under the *Conservation Authorities Act* are identified under subsection 30.5(2), which states that a person who commits an offence under the *Conservation Authorities Act* is liable on conviction, (a) in the case of an individual, (i) to a fine of not more than $50,000 or to a term of imprisonment of not more than three months, or to both, and (ii) to an additional fine of not more than $10,000 for each day or part of a day on which the offence occurs or continues; and (b) in the case of a corporation, (i) to a fine of not more than $1,000,000, and (ii) to an additional fine of not more than $200,000 for each day or part of a day on which the offence occurs or continues.

Despite the maximum fines contained in subsection 30.5(2) of the Act, pursuant to subsection 30.5(3) a court that convicts a person of certain offences under the Act may increase the fine it imposes on the person by an amount equal to

the amount of the monetary benefit that was acquired by the person, or that accrued to the person, as a result of the commission of the offence.

2.16 Policy and Procedure Amendments

This policies and procedures document shall be reviewed as required by *Ontario Regulation 41/24* Section 12(5) on an annual basis and will be updated as follows:

1. Amendments to be approved by the General Manager:
   a. Housekeeping Amendments: Changes that have no effect on the written policy such as, but not limited to, typographical errors, renumbering, graphical and layout changes, non-policy clarifications, external reference updates.
   b. Minor Amendments: Changes that reflect minor changes such as, but not limited to, wording changes that result in a policy-based clarification or implementation, modifying a policy subsection, updating technical guidelines or appendices.
2. Amendments to be approved by the Board of Directors:
   a. Major Amendments: Changes that will result in adding new policies, removing policies, changing the intent or effect of a policy.

Amendments will require consultation that is appropriate to the scope and nature of the proposed change. Where public consultation is required, the RVCA will include a posting on its website for no less than 30 days for public review and comment. RVCA staff will work to resolve any comments received prior to reporting back to the RVCA Board of Directors for approval.

3 Development Activity Policies

The policies provided in this section form the basis of review for a permit application under Section 28 of the Conservation Authorities Act and Ontario Regulation 41/24. Regulated natural hazards outlined by this document are frequently located in areas that coincide and *development activities* may be subject to applicable policies under various sections. Therefore, all policies shall apply and must be considered in their entirety.

In reading this section, policies are structured in a nested format ranging from broad to specific policies. As such, most sections are laid out by providing *General Policies* that relate directly to the specified hazard and shall apply to the consideration for all permit applications. *Development Activity Policies* apply to specific types of *development activities* and are specified with descriptive subsection tags to assist with navigating the document.

3.1 Natural Hazards

Natural hazards refer to lands that could be unsafe for development because of naturally occurring processes. For the purpose of this document, natural hazards are those specifically as being associated with flooding, erosion, dynamic beaches, unstable soil, or bedrock, in accordance with the *Conservation Authorities Act*.

Natural hazard policies shall apply to all areas where *hazardous lands* are present and may be further addressed through hazard specific policies as presented throughout this document.

3.1.1 Natural Hazards General Policies

Within a *regulated area*, *development activity* shall demonstrate consistency with all of the following criteria:

1. *Development activity* does not likely have the potential to jeopardize public health or safety.
2. *Development activity* does not likely increase the risk of damage or destruction of the property.
3. *Development activity* does not create a new, or exacerbate an existing, natural hazard risk and does not increase the impacts related to natural hazards.
4. *Development activity* demonstrates that there is no reasonable alternative location on the subject property to avoid the regulated natural hazard(s).
5. *Development activity* does not preclude future development from avoiding the regulated natural hazard(s).
6. *Development activity* provides *safe access* for emergency services and maintenance, stabilization, or protective works to reduce natural hazard risk.

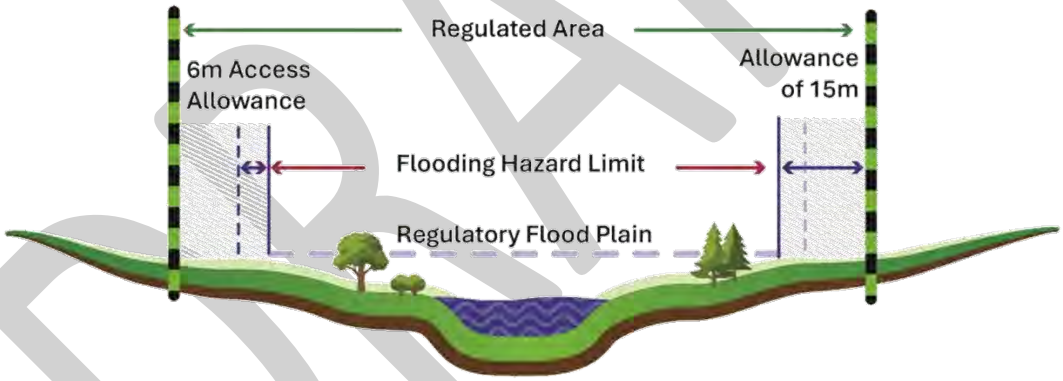
7. *Development activity* does not create a risk to natural surficial and groundwater recharge and discharge areas which contribute and influence natural process response related to flooding hazards, erosion, unstable soils, low water and drought conditions.
8. *Development activity* does not create or contribute through cumulative impacts the potential to create or exacerbate a natural hazard.

3.2 Flooding Hazards

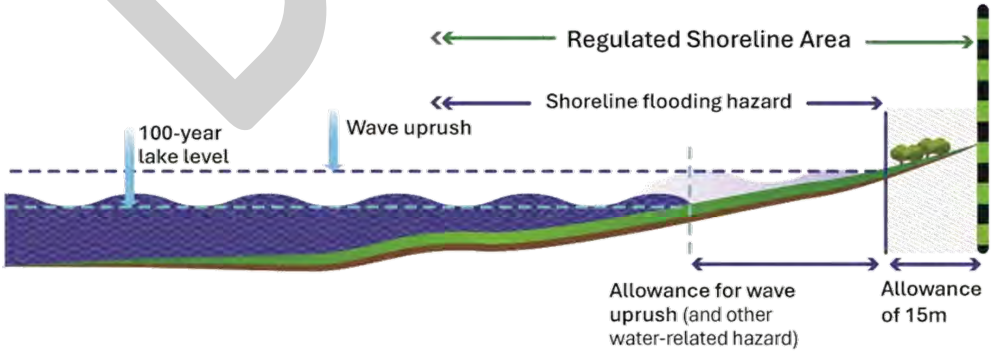
Flooding hazards are considered where land could be unsafe due the presence of flood waters overtopping the normal banks of waterbodies, typically as the result of natural processes associated with snow melt or major storm events.

Ontario Regulation 41/24 sets the 100-year return period as the flood event standard to be used by the RVCA for mapping of the *flooding hazard*. Lands within a *flooding hazard* and within 15 meters of a *flooding hazard* encompass the regulated extent of the hazard. The RVCA implements *flooding hazards* on a One-Zone *flood plain* basis, whereby the entire floodway is the extent of the hazard.

Regulated Area for *Watercourse Flooding Hazard*



Regulated Area for Inland Lake *Flooding Hazard*



3.2.1 Flooding Hazard General Polices

Within a regulated *flooding hazard* area, *development activity* may be permitted in accordance with the Natural Hazard General Policies and shall demonstrate consistency with all of the following criteria:

1. The *flooding hazard* cannot be reasonably and practicably avoided, through the relocation of *development activity* on the subject property to an area of least susceptible to risk.
2. There is no increase to the number of existing *dwelling units* within the flooding hazard.
3. All *floodproofing* requirements are satisfied.
4. Consistent with *safe access* requirements.
5. Protection against surficial erosion through proper drainage, erosion and sediment controls or site stabilization and restoration.
6. Flood storage and flood hydraulics are not negatively affected, including potential for debris to be trapped or ice to be jammed creating a *flooding hazard.*
7. New *buildings* or *structures* are setback to a location outside the flooding hazard and 6-metre *access allowance*.
8. No net increase in *fill* or material*,* except where consistent with the placement of *fill* policies.

3.2.2 Flooding Hazards Development Activity Policies

Within a regulated *flooding hazard* area, *development activity* may be permitted in accordance with the *Flooding Hazard General Policies* and shall demonstrate consistency with all of the following applicable criteria:

Vacant Lots of Record

1. New *dwelling unit*(s) shall not be permitted on a *vacant lot of record*.

Principle Use

2. No *habitable gross floor area* shall be permitted below the regulated flood elevation.
3. Minor additions to an existing principal *building* may be permitted up to:
   a. A cumulative total *gross floor area* not exceeding 50 m^2, where *safe access* is demonstrated.
   b. A cumulative total *gross floor area* not exceeding 20 m^2, where *safe access* cannot be demonstrated.

Agricultural

4. Agricultural related *buildings or structures* may be permitted in an area of no more than 0.3 metre of flooding.
5. Agricultural *buildings* shall used for the overnight housing of livestock.

Infrastructure

6. Infrastructure may be permitted where it has been demonstrated that there is a need and the flooding hazard cannot be avoided, or where works are proposed to protect against failures.
7. *Stormwater management facilities* shall be located outside of flooding hazards with the exception of outfall and emergency flow route structures as part of an approved outlet at or above the 1:25 year flood elevation.

Roofline Overhangs

8. Unenclosed extensions of a roofline associated with a residential dwelling, such as carports, covered decks, roof extensions over patio spaces may be permitted up to a cumulative total of 20 m^2.
9. *Enclosure* of a roofline overhang shall not be permitted, including installation of temporary walls, screening, or conversion to 3-season rooms, and shall be considered as part of a minor addition.
10. Roofline overhang supports shall be anchored to minimize risk of being displaced during a flood event.

Accessory Structures

11. *Accessory buildings or structures* shall be non-*habitable* and shall not provide the ability for conversion into *habitable* space.
12. A maximum of one (1) detached *accessory building or structure* with a total *gross floor area* up to a maximum of 50 m^2.
13. *Accessory buildings* or *structures* shall have a maximum of one (1) storey;
14. *Accessory structures* shall be properly anchored to minimize risk of being displaced during a flood event.
15. An additional cumulative maximum *gross floor area* of 20 m^2 for peripheral structures (such as decks or balconies) connected to an existing *building* or *structure*.
16. Peripheral structures connected to existing *buildings* and *structures* may encroach into the *flood plain* where it does not impact or impede the passage of flooding through design such as enclosed pier supports or cantilevering.

Reconstruction

17. *Dwelling units* shall demonstrate the structure is *habitable* in accordance with the *Ontario Building Code* prior to demolition to be eligible for reconstruction.
18. A *replacement* building or structure shall not exceed the total permitted *gross floor area* and total footprint of the demolished structure.

Private Sewage Disposal Systems

19. Construction of new, and the repair or replacement of a sewage disposal system may be permitted.
20. Where possible a replacement sewage disposal system should be relocated outside of the flooding hazard or to a location that would result in the lowest risk and smallest footprint.

Parking Lots and Structures

21. Surface parking lots may be permitted in an area of no more than 0.3 metre of flooding.
22. Underground parking structures shall not be permitted within a flooding hazard.

Open Storage

23. *Open storage* of materials, equipment, or vehicles, including stockpiling of *fill* shall not be permitted.
24. Stockpiling of snow may be permitted where collected and moved within the same property, importing of snow shall not be permitted.

Adjacent Lands

25. *Development activity* outside of a *flooding hazard*, but within the regulated limit, may be considered where it is demonstrated that *floodproofing* policies are met, and where grading and drainage are addressed entirely outside of the *flooding hazard*.

Swimming Pools

26. In-ground swimming pools may be permitted where it is demonstrated that the structure shall be protected year-round against hydrostatic pressure.

3.2.3 Floodproofing

All *development activity* within the *flooding hazard* limit shall be floodproofed to the greatest extent possible**.** To guide *development activity* in achieving the highest practicable standard of *floodproofing*, the RVCA shall only consider a lower *floodproofing* standard where it has been demonstrated that each higher standard is not achievable based on the following hierarchy:

Table 2: *Floodproofing* Hierarchy Table

Tier (Highest to Lowest)	Minimum Floodproofing Requirements
A	Dry *Floodproofing*
B	Wet *Floodproofing*
C	Partial *Floodproofing*
D	Active *Floodproofing*
E	No Improvement or Hazard Exacerbation

For additional information, reference should be made to the *Technical Guide River and Stream Systems: Flood Hazard Limit*, MNR 2002.

3.2.3.1 Dry Floodproofing

Where proposing to utilize dry *floodproofing* to protect a *building or structure*, all of the following applicable criteria shall be met:

1. All *floodproofing* measures are passive and do not require advance warning to function.
2. The underside of a main floor used as *habitable gross floor area* shall be at least 0.3 m above the *regulatory flood* elevation.
3. All openings (windows, vents, doors), mechanical, heating and electrical must be located at least 0.3 m above the *regulatory flood level*.
4. Structural design and specifications for foundations or for *fill* materials shall be prepared or approved by a qualified professional engineer at the applicant's expense, certifying in writing that:
    a. the design has considered the *regulatory flood* (velocity and depth of flow) and site conditions (soil type, bearing capacity, etc.) encountered at the specific location of the *development*.
    b. the foundation and building are designed to withstand hydrostatic pressures and impact loading that would develop under water levels equivalent to the regulated flood level plus 0.3 metres of freeboard.
    c. all operation and maintenance requirements to be met to ensure the effective performance of the *floodproofing* measures over the design life of the structure.
5. The use of *fill* or design modifications to elevate the structure shall only be permitted where it is demonstrated the impacts of flooding have been addressed in accordance with *balanced cut and fill* policies or where permitted by Area Specific Policies.

3.2.3.2 Wet Floodproofing

Where it is determined to the satisfaction of the RVCA that dry *floodproofing* is not practicable the use of wet *floodproofing* methods to protect a *building* or *structure*, may be applied. Where wet *floodproofing* is applied all of the following applicable criteria shall be met:

1. All *floodproofing* measures are passive and do not require advance warning to function.
2. Portions of a *building* or *structure* subject to flooding as part of wet *floodproofing* shall not be permitted as *habitable gross floor area*.
3. The underside of a main floor used as *habitable gross floor area* shall be at least 0.3 m above the *regulatory flood* elevation.
4. Stamped technical drawings must indicate the means by which hydrostatic pressure is to be equalized on either side of the foundation walls and slab.
5. Passive flood vents shall be sized appropriately and installed in locations that reduce the impact of flooding hazards on the structure.
6. *Buildings* or *structures* may be constructed on appropriately anchored pier, pile or column foundation style construction, where no foundation walls are proposed.
7. Construction material must withstand alternating wetting and drying such as concrete, pressure treated wood etc.

8. Sump pump systems may be required (to facilitate clean-up).
9. The vertical height within the enclosed space under the building between the underside of the floor assembly and the ground cover directly below shall be no greater than 1.8 m.

3.2.3.3 Partial Floodproofing

Where proposing to extend an existing non-floodproofed *building or structure* through a minor addition, partial improvements may be permitted where it has been demonstrated that all of the following criteria have been met:

1. Minor additions are floodproofed independently of the existing structure.
2. Minor additions demonstrate that it will not be affected by failures in the non-floodproofed *building or structure*.
3. Minor additions improve the integrity and capacity for flood protection of the existing structure to the greatest extent possible.
4. Minor additions do not expand *gross floor area* below the regulated flood elevation.

3.2.3.4 Active Floodproofing

Active *floodproofing* requires an action to occur for protections to be implemented or effective. Action may include human interventions or mechanical responses, such as closing watertight doors, sandbagging, or backflow preventers for the measure to be effective. Advance flood warning is almost always required in order to make the flood protection operational. Therefore, active *floodproofing* is generally appropriate to provide additional protection, to enhance unprotected *buildings* or *structures*, or supplement passive *floodproofing* measures.

Active *floodproofing* shall not form the basis of *floodproofing* standards applied in the approval of replacement, reconstruction, redevelopment or minor additions of *buildings* or *structures*.

3.2.3.5 Foundation Repair or Reconstruction

Where an existing foundation to a *building* or *structure* does not meet *floodproofing* requirements, repairs or reconstruction of the foundation shall be permitted, where repairs or reconstruction maintains or improves the *building* or *structure* from flood susceptibility. The RVCA shall require that improvements achieve, to the greatest extent practicable, *floodproofing* measures where they can be implemented.

3.2.3.6 Floodproofing for Marine Facilities

For in-water *buildings* or *structures*, alternative *floodproofing* methods may be permitted where it has been demonstrated that all of the following criteria have been met:

1. *Accessory buildings or structures* shall be properly anchored, to reasonably prevent being dislodged during a flood event.
2. No servicing other than electrical, conforming to Electrical Safety Authority (ESA) requirements are permitted within in-water *accessory* structures.
3. *Accessory buildings or structures* are floodproofed to the regulated flood level standard or applicable elevation in Table 3: Lake Water Level Table below.

Table 3: Lake Water Level Reference Table

Lake	Average Summer Water Level	Lake	Average Summer Water Level
Adam Lake	123.75m	Irish Lake	104.24m
Bass Lake	133.81m	Leggat Lake	200.56m
Bellamys Lake	116.13m	Little Crosby Lake	145.39m
Black Lake	140.21m	Long Lake (Hinchinbrooke/Olden)	183.79m
Burridge Lake	163.07m	Long Lake (N. Burgess)	128.93m
Carnahan Lake	219.46m	Long Pond Lake	178.92m
Christie Lake	155.14m	Mill Pond	124.97m
Cranberry Lake	114.61m	Miller Lake	192.02m
Crosby Lake	145.70m	O'Brien Lake	179.22m
Crow Lake	162.15m	Pike Lake	145.09m
Duncan Lake	177.39m	Round Lake	135.03m
Eagle Lake	189.89m	Sucker Lake	173.74m
Elbow Lake	174.04m	Westport Sand Lake	134.42m
Farren Lake	175.57m	Wolfe Lake	136.25m

3.2.3.7 Notice

The long-term effectiveness of *floodproofing* measures will rely on there being no inappropriate modifications made to the *floodproofing* system (consisting of structural elements, piers, drainage systems, backfill, and waterproof membranes and/or seals) and no inappropriate uses made of flood susceptible portions of the structure. For applications involving approved *floodproofing* techniques, the Authority may require that a notice be prepared and registered on title to the property at the applicant's expense, acknowledging the property being located within a *flood plain* and potentially subject to flooding, identifying *floodproofing* measures, design controls, or owner's obligations related to the lands, *buildings* and structures thereon.

3.2.4 Safe Access

Safe access refers to the ability for ingress and egress to a property during a flood event and shall be determined based on flood depths and flood velocities within *flooding hazards*. Specifically, for the purposes of pedestrian, vehicular and emergency services evacuation requirements, *safe access* shall be calculated in relation to the 1:100 year flood event. *Safe access* standards have been developed with guidance from the *Technical Guide River and Stream Systems: Flood Hazard Limit*, MNR 2002

Safe access shall only be considered available where all of the following criteria is met:

1. The product of flood depth and flow velocity does not exceed 0.4 m^2/s.
2. The maximum flood depth does not exceed 0.8 m.
3. The maximum flow velocity does not exceed 1.7 m/s.
4. Where flow velocity information is not available a maximum of 0.3 m flood depth.
5. For existing restricted uses, *safe access* shall remain dry at all times.
6. An emergency response plan, approved by the applicable municipality, shall be required where flood depths exceed 0.3 m.

For ease of use, the following table is provided for reference only:

Table 4: *Safe Access* Reference Table

Flow Velocity	Acceptable Depth
0.5 m/s	0.8 m
0.5 m/s	0.7 m
0.6 m/s	0.6 m
0.8 m/s	0.5 m
1.0 m/s	0.4 m
1.3 m/s	0.3 m
1.7 m/s	0.2 m
1.7 m/s	0.1 m
N/A	0.3 m

3.2.5 Placement of Fill

The placement of *fill* or other materials within a *flooding hazard* or *erosion hazard* shall be generally prohibited, except where approved in accordance with policies contained in this section.

3.2.5.1 Balanced Cut and Fill

In addition to the Natural Hazard General Policies, *development activity* associated with the placement of *fill* shall be offset by a corresponding cut (removal of *fill*), may be permitted where it has been demonstrated that all of the following criteria have been met:

1. The loss of *flood plain* storage volume within the *regulatory flood plain*, as a result of any placement of *fill* shall be fully compensated for by a balanced cut (excavation) to be carried out in proximity to and concurrently with the placement of the *fill* on the same property(s).
2. The volume of available *flood plain* storage capacity within the affected river or stream reach shall not be reduced.
3. The energy grade associated with the flooding hazard shall not be increased.
4. All excavated material shall be removed to an area that is outside of any *regulated area*.
5. The proposed site grading (cut and *fill*) must be designed to result in no increase in upstream and downstream water surface elevations and no increase in flow velocities in the affected river cross-sections, under a full range of potential flood discharge conditions (1:2 year to 1:100 year return periods); compliance with this requirement shall be demonstrated by means of hydraulic computations completed to the satisfaction of RVCA.
6. The *balanced cut and fill* will not have an adverse impact on erosion hazards, *wetlands*, valleylands, or *hydrologic functions*.

3.2.5.2 Grading Associated with Private Sewage Disposal Systems

In order to protect the viability of infrastructure associated with development, the placement of *fill* may be permitted for work associated with a private sewage disposal system to achieve Ontario Building Code *floodproofing* requirements where the total amount of *fill* is minimized to the greatest extent practicable, and shall take into consideration all of the following criteria to determine acceptable *fill* standards:

a. The type or class of sewage system.
b. The location of the system.
c. The cumulative impact on natural hazards.
d. Grading requirements to safely tie into existing grades.
e. Drainage and soil conditions.
f. Ground water table.
g. Any other site-specific requirements that may create a risk to public health and safety or damage to property.

3.2.5.3 Grading Associated with Landscaping

In addition to the *Natural Hazard General Policies*, *development activity* associated the with placement of material to assist with landscaping or gardening, may be permitted where it has been demonstrated that all of the following criteria have been met:

a. A stamped plan approval for up to a cumulative total of 15 m^3 of *fill* material may be permitted.
b. The area for placement of *fill* is located in an area of no more than 0.3 metres of flooding and is not prone to erosion under normal water conditions.

3.2.6 Area Specific Flooding Hazard Policies

Certain areas within the jurisdiction of the RVCA warrant additional considerations for *development activities*, based on conditions specific to the area affected by natural hazards. These areas are shown on regulatory mapping and Schedules in this document. For reference, the following table identifies areas that may apply additional policy considerations:

Table 5: Summary of Area Specific Flooding Hazard Areas by Type

Flood Control Works Areas	**Flood Spill Zones** (*watercourse* or *wetland* system)	**Areas of Shallow Flooding**
Brewer Park & Carleton University	Becketts Creek	Flowing Creek
Britannia Village	Bilberry Creek	
Warrington Drive & Windsor Park	Brittania Village	
	Mud Creek	
	Nichols Creek Wetland	

3.2.6.1 Flood Control Works Areas (Areas of Reduced Flood Risk)

Within specified *flooding hazard* areas, *development activity* may consider more permissive policies due to the presence of publicly maintained flood control works. Flood Control Works Areas are identified within regulatory mapping, and associated with the following geographic neighbourhoods within the City of Ottawa:

a. Brewer Park and Carleton University
b. Britannia Village
c. Warrington Drive and Windsor Park

Subject to the *Flooding Hazard General Policies* and *Flooding Hazard Development Activity Policies*, areas protected by flood control works may permit *development activities* in accordance with the additional criteria:

a. Minor additions may be permitted to a maximum cumulative total *gross floor area* exceeding 50 m^2.
b. New *dwelling units* may be permitted.
c. A portion of a *dwelling unit*'s *habitable gross floor area* below the regulated flood elevation may be permitted where protected by dry *floodproofing* measures.

3.2.6.2 Shallow Flooding

In addition to the *Flooding Hazard General Policies and Flooding Hazard Development Activity Policies*, *development activity* in areas identified as Shallow Flooding may be permitted subject to the following criteria:

a. *Site alteration* and grading, including importing of *fill*, may be considered as part of *development activity* to protect from flood hazards.

3.2.6.3 Flood Plain Spill Areas

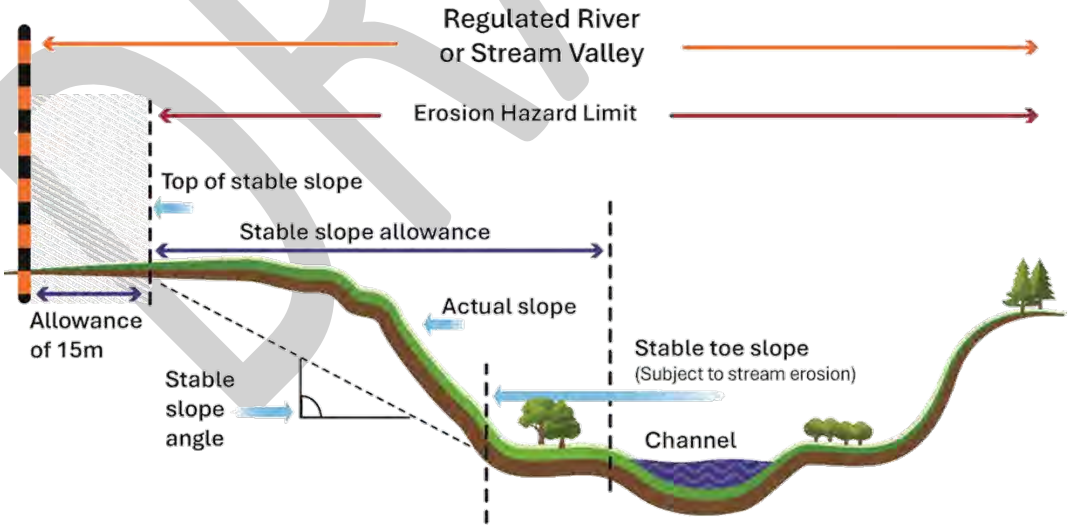
In addition to the *Flooding Hazard General Policies and Flooding Hazard Development Activity Policies*, *development activity* in areas identified as Flood Plain Spill Areas may be permitted subject to the following criteria:

a. It results in no impacts on flood hazards.
b. Does not create risk to public health and safety or risk to property damage.

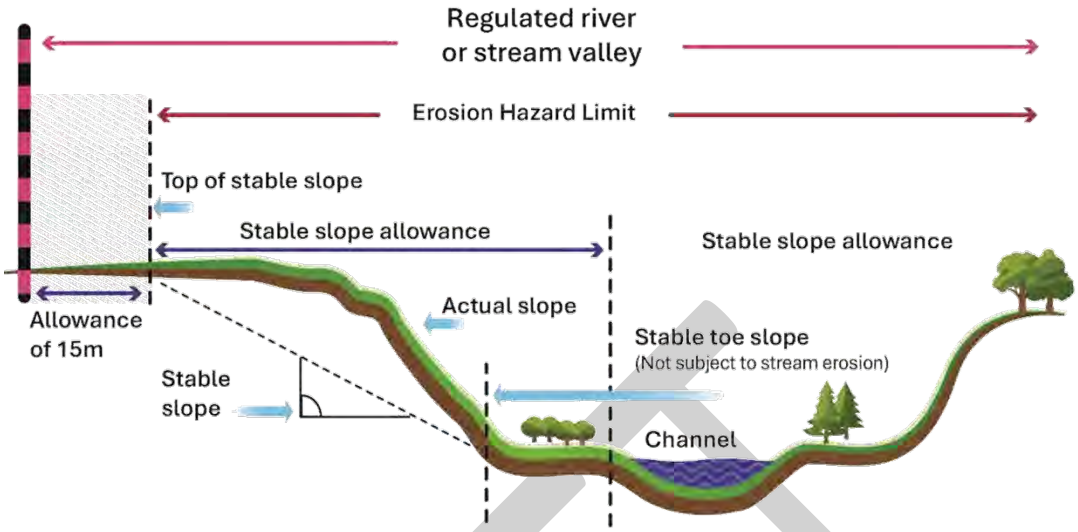
3.3 Erosion Hazards

Erosion is a natural process of soil and rock loss due to natural processes or by the result of human activity. *Erosion hazards* apply to those portions of a *valley land* system that are both apparent (confined) and not apparent (unconfined) or adjacent to a *surface water feature*. The extent of a hazard may vary based on the characteristics of bedrock and soils of the slope, the degree to which the valley slope is stable or unstable, and whether the valley slope is subject to active *erosion*.

Regulated Area for *Erosion Hazard* subject to stream erosion



Regulated Area for *Erosion Hazard* not subject to stream erosion



The limit of the *erosion hazard* is based on the natural state of the area without the use of mitigation or remediation works. *Erosion hazard* limits shall be determined through site specific field investigations and technical reports prepared by a qualified professional, where required.

3.3.1 Erosion Hazard General Policies

Within a regulated *erosion hazard* area, *development activity* may be permitted in accordance with the *Natural Hazard General Policies* and shall demonstrate consistency with all of the following criteria:

1. *Development activity* is supported by geotechnical and/or geomorphic assessment confirming all works, except those required for stabilization, are located outside of the erosion hazard.
2. There is no increase to the number of existing *dwelling units* within the *erosion hazard*.
3. There is no slope stabilization or erosion mitigation required to achieve suitable conditions for new *development activity.*
4. Recommendations of the supporting geotechnical report are consistent with and based on established provincial and RVCA guidelines.
5. The development 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.
6. There is no adverse impact on existing or future erosion and slope stability on the property or adjacent lands.
7. There is no change, including drainage patterns or vegetation cover, that would compromise slope stability or exacerbate erosion of the valley slopes or *watercourse* banks.

8. Drainage shall not be directed towards or within a slope.
9. The potential of increased loading forces on the top of the slope is assessed through appropriate structural and geotechnical engineering design.
10. The potential for surficial *erosion* is addressed by an approved drainage plan.
11. *Safe access* for preventative actions or maintenance or *access* during an emergency is not impacted.
12. New *buildings* or *structures* are setback to a location outside the limit of hazard, inclusive of a 6-metre erosion *access allowance*.
13. *Development activity* maintains existing topography to the maximum extent possible, therefore reducing or eliminating the need for the use of structural measures such as retaining walls to meet or maintain existing grades.
14. *Buildings* or *structures* shall not be permitted on a slope or at the toe of a slope.

3.3.2 Erosion Hazard Development Activity Policies

Within a regulated *erosion hazard* area, *development activity* may be permitted in accordance with the *Erosion Hazard General Policies* and shall demonstrate consistency with all of the following applicable criteria:

Infrastructure

1. Infrastructure may be permitted where it has been demonstrated that there is a need, and the erosion hazard cannot be avoided, or where works are proposed to protect against failures.
2. *Stormwater management facilities* shall be located outside of erosion hazards with the exception of outfall or emergency flow route structures as part of an approved outlet.

Vehicular Access

3. Construction of a driveway, excluding parking facilities, over an erosion hazard of a river or stream valley in order to provide access to lands outside of the river or stream valley, may be permitted subject to *watercourse interference* policies.

Minor Additions and Reconstruction

4. Minor additions to existing *buildings* or *structures* and the reconstruction of an existing *building* or *structure* may be permitted if it has been demonstrated:
   a) There is no increase in the number of *dwelling units*.
   b) Reconstruction is not required due to damage or destruction related to the erosion hazard.
   c) *Development activity* takes into consideration opportunities to improve (lessen) the risk to public health and safety and the destruction of property through relocation.
   d) Relocation closer to the *top of slope* or within the slope is prohibited.

e) The new development cannot extend closer to the stable *top of slope* than the existing or previous development.

Non-Habitable Accessory Structures

5. Non-*habitable accessory buildings*, *structures*, landscaping, stairs or ornamental retaining walls, less than 0.3 metres in height, and decks associated with *existing uses* may be permitted provided:
   a) There is no reasonable alternative site outside of the erosion hazard.
   b) There is no impact on existing and future slope stability and erosion hazards.
   c) Does not impact adjacent lands.
   d) There is no ability for conversion into *habitable* space in the future.

Private Sewage Disposal Systems

6. The repair or replacement of a sewage disposal system may be permitted. The replacement system should be relocated outside of the erosion hazard wherever possible.

3.3.3 Erosion Hazard Stabilization Policies

Within a regulated *erosion hazard* area and within the limit of hazard, *development activity* associated with stabilization works may be permitted in accordance with the *Erosion Hazard General Policies* and shall demonstrate consistency with all of the following applicable criteria:

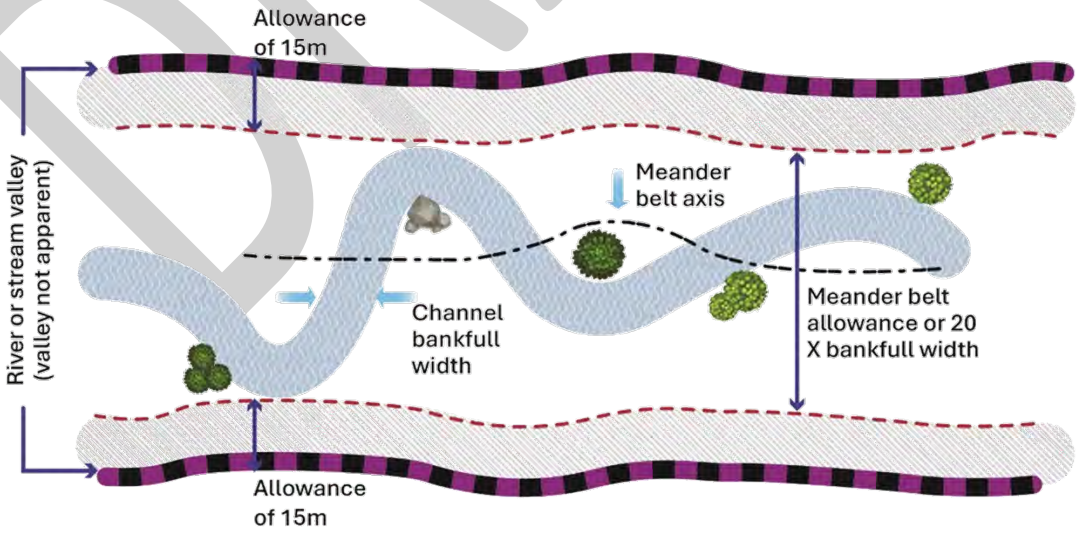
1. That erosion protection works be designed to protect existing development on a comprehensive basis and not to facilitate the creation of additional area to accommodate or facilitate development, intensification, or *site alteration*.
2. Stream bank, slope and valley stabilization may be permitted subject to the shoreline and *watercourse* policies to protect against failure events occurring.
3. Erosion hazard stabilization shall not be considered or form the basis for a reduction or elimination of hazard limits.

3.3.4 Meander Belt General Policies

The allowance for a meander belt is typically employed when evaluating potential development along an unconfined *watercourse*. This allowance is established as a precaution to prevent development from being situated in areas at risk, while simultaneously safeguarding the natural flow of the water along with inherent processes such as erosion.

Where there is an *unconfined* valley, the flow of water is free to shift across the shallower land. The regulated extent of an *unconfined* valley shall be based on the greater of the extent of the *riverine flooding hazard* or the *meander belt allowance* plus an additional allowance of 15 metres.

Regulated Area for *Meander Belt Erosion Hazard*



Within a regulated *meander belt erosion hazard* area, *development activity* may be permitted in accordance with the *Flooding Hazard General Policies and*

Erosion Hazard General Policies and shall demonstrate consistency with all of the following applicable criteria:

1. *Development activity* shall not be permitted within the *flooding hazard* associated with a meander belt or within the *meander belt allowance* of an *unconfined system*.
2. Geomorphic, hydraulic or engineering assessment may be considered to establish more precise limits for the *flooding hazard* and *erosion* hazard on a site-specific basis.
3. *Buildings* or *structures* located within the *meander belt allowance*, other than those destroyed by erosion or flooding, will be permitted to be replaced or relocated within the *meander belt allowance* provided the *building* or *structure* are of the same size and use, contain the same number of *dwelling units* and where the works will not increase the risk to health and safety or damage to properties as a result of erosion.
4. *Development activity* shall be setback to a location outside the limit of the *meander belt allowance* and a 6-metre erosion *access allowance*.

3.4 Unstable Soil or Bedrock Hazards

Hazardous sites refer to areas where underlying geology may result in areas that are unsuitable for development due to risks to public health and safety and damage to property, in scenarios, such as collapse, landslides, or other types of seismic activity.

3.4.1 Unstable Soil or Bedrock Hazard General Policies

Within a regulated *unstable soil or bedrock hazard* area, *development activity* may be permitted in accordance with the *Natural Hazard General Policies* and shall demonstrate consistency with all of the following criteria:

1. A more precise delineation of the limit of the hazardous land is provided, through a technical study prepared by a qualified professional confirming that *development activity* is located outside of the hazard.
2. There is no reasonable alternative location for *development activity* to occur (such as public infrastructure).
3. The risk of stability which would result in structural failure or property damage is eliminated or minimized.

3.4.2 Sensitive Marine Clay (Leda Clay) General Policies

Sensitive marine clay, with its high water content and susceptibility to instability, is susceptible for causing quick and sizeable earth flows, referred to as retrogressive landslides. These landslides pose considerable risk and geotechnical challenges due to unpredictability and potential for retrogressive failure with little to no warning.

Sensitive marine clay, characterized by their sensitivity, are also susceptible to consolidation, softening cycles, and liquefaction when subjected to changes in loading or alterations in the groundwater regime, similar to other clay types. Where geotechnical sensitive marine clay related hazards are not related to an unstable slope, the RVCA will defer to municipal implementation of protections under the Ontario Building Code.

Within a regulated *unstable soil hazard* area*,* due to the presence of sensitive marine clay, *development activity* may be permitted in accordance with the *Natural Hazard General Policies* and shall demonstrate consistency with all of the following criteria:

1. *Development activity* is limited to areas outside the limit of hazard or to an acceptable location as determined through a Landslide Hazard and Risk Assessment, prepared by a qualified professional.

3.4.3 Bedrock Hazards General Policies

Karst terrain, formed through the dissolution of soluble rocks like limestone, dolomite, or gypsum, is marked by distinct features including sinkholes, enhanced subsurface drainage via widened fractures, and cave systems. These landscapes can pose significant natural hazard risks.

Within a regulated *bedrock hazard* area*,* due to the presence of karst terrain, *development activity* may be permitted in accordance with the *Natural Hazard General Policies* and shall demonstrate consistency with all of the following criteria:

1. *Development activity* on karst or within 50 metres of karst shall have consideration for associated impacts related to:
   a. Storm water drainage.
   b. Utilities.
   c. Groundwater.
   d. Flooding.
2. Surface water run-off shall not be directed to a sinkhole or closed depression.
3. Drainage plans shall be designed to route surface water run-off through vegetative filters or other filtration measures before it enters such features.
4. Construction of water wells shall no be permitted 50 metres of a karst feature.

3.4.4 Organic Soil Hazards General Policies

Organic soils are normally formed by the decomposition of vegetative and organic materials into humus, a process known as humification. Due to the high variability of organic soils, the potential risks and hazards associated with *development* in this type of hazardous land are also highly variable.

Within a regulated *unstable soil,* due to the presence of organic soils, *development activity* may be permitted in accordance with the *Natural Hazard General Policies* and shall demonstrate consistency with all of the following criteria:

1. Mitigation of organic soils can be reasonably completed to avoid potential risks to public health and safety or to damage or destruction of property as supported by geotechnical analysis prepared by a qualified professional.

3.5 Dynamic Beach Hazards and Shorelines

Dynamic beaches are defined where the beach deposit is at least 0.3 metres in thickness, 10 metres in width and 100 metres in length based on provincial standards. The dynamic beach hazard limit consists of the flooding hazards limit plus a dynamic beach allowance.

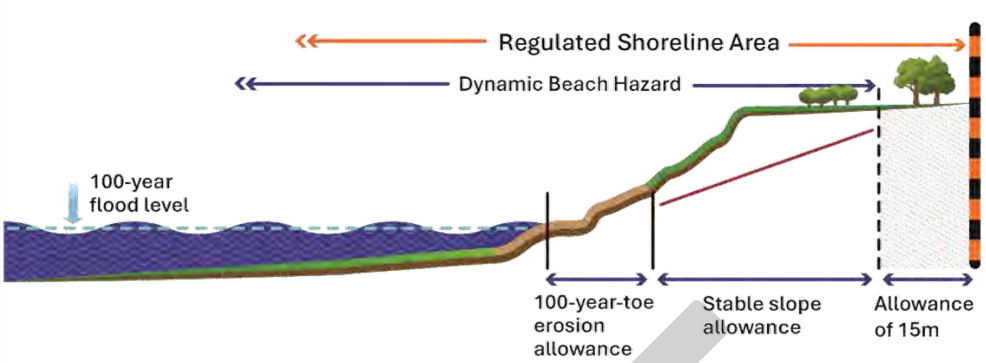
The generic setback for development along shoreline should be 30 metres from the limits of the flood hazard. A site-specific analysis completed by a qualified engineer will be required to determine the extent of the dynamic beach hazard.

3.5.1 Dynamic Beach Hazards General Policies

Within a regulated *dynamic beach hazard* area*, development activity* may be permitted in accordance with the *Natural Hazard General Policies* and shall demonstrate consistency with all of the following criteria:

1. The extent of the *dynamic beach hazard* is confirmed by a site-specific analysis completed by a qualified professional.
2. *Development activity* is located outside of the dynamic beach hazard.
3. There is no new or aggravated hazard.
4. *Safe access* is provided.

Regulated Area for *Dynamic Beach Hazards*



3.5.2 Shoreline Protection General Policies

Within a regulated *erosion hazard* area or along an inland lake or *watercourse, development activity* may be permitted in accordance with the *Erosion Hazard General Policies* and *Watercourse Interference General Policies* and shall demonstrate consistency with all of the following criteria:

1. Shoreline modifications shall be designed to stabilize property and existing development from erosion hazards.
2. Shoreline modifications are designed and by a qualified professional engineer.
3. Base flows of the *watercourse* shall not be adversely affected.
4. Shoreline contours shall be maintained, to minimize disturbance to geomorphological processes.
5. Shoreline modifications do not extend into a *watercourse* or waterbody.
6. Surplus *fill* is removed from any *regulated area*.
7. Alignment of modifications result in no significant effects on *watercourse* hydraulics.
8. Transitions from proposed protection to adjacent shorelines is designed to *mitigate* local *erosion*, debris accumulation, or undesirable changes in localized currents.
9. The design incorporates adequate drainage features.
10. There is no aggravation or creation of erosion hazards in proximity to stable or unstable slopes.
11. Depending on soil type, a minimum ratio of 3:1 (horizontal to vertical) slope is recommended and may not be steeper than 2:1 justified by a geotechnical report.

3.5.3 Shoreline Protection Development Activity Policies

Within a regulated *erosion hazard* area or along an inland lake or*, development activity* may be permitted in accordance with the *Erosion Hazard General Policies* and *Watercourse Interference General Policies* and shall demonstrate consistency with all of the following applicable criteria:

Shoreline Amenity Areas

1. New, impacted, or open areas shall be permitted for the use as amenity area, including landscaping, patios, or other structures, for a cumulative 25% of a property's shoreline frontage, up to a maximum of 15 metres including frontage required for in-water structures.

Public Beaches

2. The placement of *fill* to maintain an existing public beach may be permitted where it is demonstrated that active erosion is not occurring and there is no modification to the established shoreline.

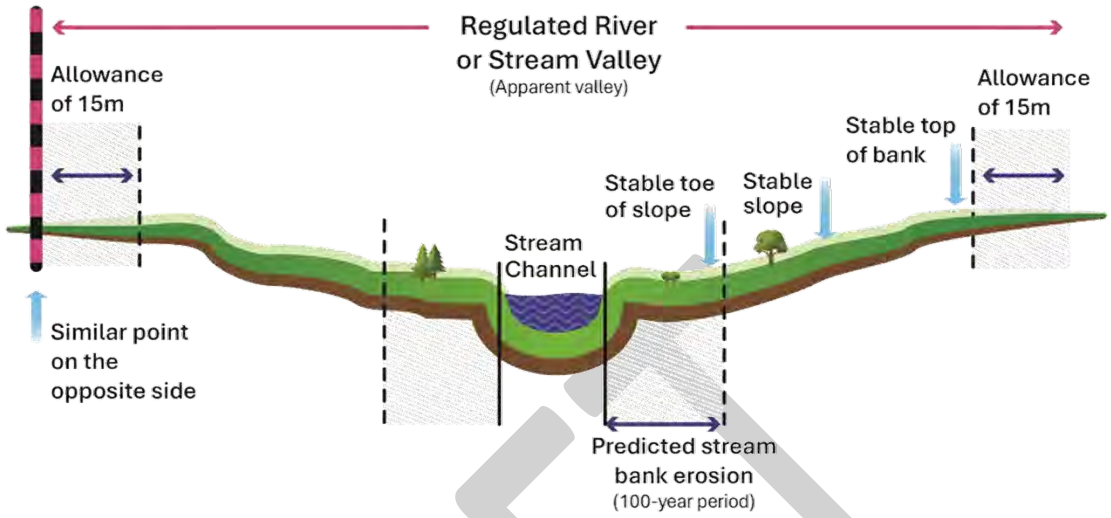
Shoreline Protection Materials

3. Naturalization, such as bioengineering techniques shall be maximized for shoreline stabilization and protection works.
4. Stabilization work may not result in the removal of significant existing natural shoreline vegetation or root systems.
5. *Hardscaping* shall not be permitted within 15 metres of an inland lake or *watercourse*.
6. Shoreline protection techniques that create a vertical wall, such as the use of concrete, steel, railway ties, gabion baskets, and other vertical *structure*s shall not be permitted.
7. Armour stone or large format block stone (e.g. cap rock or limestone) may only be permitted where active erosion is demonstrated along the Ottawa River shoreline, or as part of major public infrastructure projects.
8. Vegetated or engineered riprap may be permitted for erosion protection in areas of active erosion as confirmed a qualified professional and by RVCA staff on the property, and where alternative vegetative techniques cannot be used due to site specific conditions.
9. Vegetated or engineered riprap shall not be installed above the 1:100 year flood elevation.

3.6 Watercourse Interference

Watercourses and their associated riparian zones provide important hydrological functions related to the control of natural hazards. Maintaining the integrity of these natural functions is critical to *building* stronger resiliency to climate change impacts and protecting people and property from the risks of natural hazards.

Regulated Area for a *Watercourse or* Stream Valley



3.6.1 Watercourse General Policies

Within the *regulated area* of a *watercourse, development activity* may be permitted in accordance with the *Natural Hazard General Policies* and shall demonstrate consistency with all of the following criteria:

1. *Development activity* maintains or improves the *hydrologic function* of the *watercourse* and riparian area.
2. *Interference* shall be designed in accordance with *natural channel design* principles.
3. Development activity that would result in permanent remediation and reduction of risk to existing development and serve to improve public safety.
4. *Development activity* maintains or improves on-site *flood plain* storage capacity, slope stability and erosion protection.
5. *Development activity* does not increase the extent or impact of off-site flooding hazards or erosion hazards.
6. Sediment and erosion control measures are incorporated during the and after the construction phase, until disturbed areas have been permanently stabilized.
7. Temporary slope stability is maintained.
8. Does not create adverse *hydrologic function* impacts on *wetlands.*
9. *Enclosures* of *watercourses* are not permitted, except in circumstances to address unavoidable risks to public health and safety.

3.6.2 Watercourse Development Activity Policies

Within a *regulated area* of a *watercourse, development activity* may be permitted in accordance with the *Watercourse General Policies* and shall demonstrate consistency with all of the following applicable criteria:

Crossings

1. *Interference* with the *watercourse* will not result in an impact on natural hazard, *hydrologic function*, supported by appropriate reports and/or plans.
2. *Enclosures* or spans are less than 20 m in length and aligned perpendicular to both banks of the *watercourse*.
3. Crossings are located at existing impacted or open areas on the channel bank or valley slope.
4. Crossing *structure*s avoid the *erosion hazard* to accommodate natural *watercourse* movement.
5. Crossing structures are designed to minimize the risk of flood *dam*age and erosion hazards to up*stream* or down*stream* properties.
6. Maintenance requirements are minimized.

Realignment, Channelization or Straightening

7. Realignment, channelization or straightening of a *watercourse* may be permitted to improve slope stability, hydraulic characteristics and fluvial processes where it is demonstrated that:
   a. All reasonable alternative alignments have been considered through an *Environmental assessment* or *Headwater* Drainage Feature Assessment supported by the RVCA or through site-specific studies, whichever is applicable based on the scale and scope of the project.
   b. *Stream* bank stability is enhanced.
   c. The realigned section must be constructed first and with the retired section filled in during dry conditions or in a manner consistent with habitat protection.
   d. Where unavoidable, intrusions on *significant natural features* or *hydrologic function*s are minimized and it is demonstrated that *best management practices* (See Best Management Practice 6) including site design and appropriate remedial measures will adequately restore and enhance features and functions.
   e. *Natural channel design* principles are followed to the extent possible.

Enclosures

8. *Watercourse enclosures* may be permitted, for an *agricultural activity*, where it has been demonstrated that all of the following criteria have been met:
   a. The reach to be enclosed is greater than 20 metres in length
   b. The reach to be enclosed does not exceed 2 metres in bank full width or 1 meter in channel bottom width.
   c. The *development activity* is not likely to impact the control of flooding hazards or erosion hazards.
   d. The enclosure is not located within an area regulated, due to the presence of a *wetland*.
   e. Where the upstream catchment area is greater than 125 ha, a professional engineer's report is provided to support the design of the enclosure.

9. *Watercourse enclosures*, other than for agricultural activities, shall only be permitted where it has been demonstrated that:
    a. The risk to public safety and property damage is significant and require an *enclosure* to reduce and mitigate the risk adequately.
    b. All reasonable options and methods have been explored to address the hazard(s) and the *enclosure* is supported by the RVCA.
    c. Susceptibility to natural hazards is reduced and no new hazards are created.

Dredging

10. Dredging of a *watercourse* may be permitted to improve hydraulic characteristics and fluvial processes or to improve aquatic habitat where it is demonstrated that:
    a. Stream bank stability and erosion is improved or maintained.
    b. Hydraulic and *hydrologic functions* of the *watercourse* and riparian area are not adversely affected.
    c. dredged material is removed from flooding hazards and erosion hazards.

Dams

11. *Construction,* alteration, and maintenance of *dam*s may be permitted where it is demonstrated that:
    a. All reasonable alternative sites and alignments have been considered through site-specific studies (including Environmental Assessments),
    b. The water management benefits of the *dam* are demonstrated to the satisfaction of the RVCA;
    c. works are constructed according to *accepted engineering principles* and approved engineering standards or to the satisfaction of the RVCA.
    d. The risk of flood and erosion damage to upstream or downstream properties is mitigated through site and infrastructure design.
    e. Maintenance requirements are minimized.
    f. Where maintenance or repairs are required, it shall be carried out in such a manner that the integrity of the original structure is maintained or improved.
12. The retirement or the removal of *dam*s may be permitted where it has been demonstrated that:
    a. Significant natural features and *hydrologic functions* within or adjacent to a *watercourse* are restored and enhanced through the retirement or removal of the *structure* and a site restoration plan supported by the RVCA; and,
    b. The risk of erosion and sedimentation during and after retirement or removal is addressed through a draw down plan supported by the RVCA.

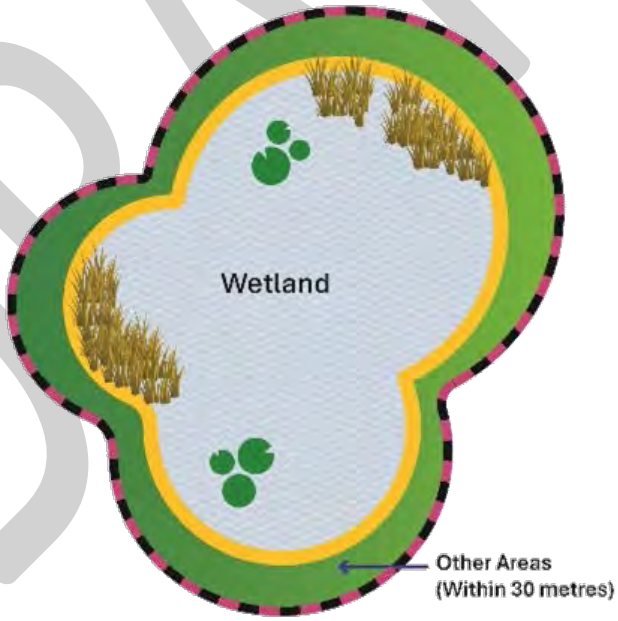
Ponds

13. Constructed ponds, which outlet to a *watercourse*, may be permitted where it is demonstrated that the construction does not result in impacts on flooding hazards or erosion hazards.
14. Bypass ponds connected to *watercourses* created as part of a site restoration plan or a *conservation project* may be permitted where it is demonstrated that the water intake is set above the elevation that permits continuous flow.
15. New on-line ponds are not permitted within a *watercourse,* except where part of a *headwater wetland* creation, enhancement, or restoration project.

3.7 Wetlands

Wetlands provide a critical *hydrologic function* by retaining water during periods of high water or peak flows (spring freshet and seasonal storm events) which reduces flooding and allows water to be slowly released into *watercourses* protecting against drought, provide reciprocal linkages to ground water, and contributes significantly to the hydrologic cycle through evapotranspiration. *Wetlands* in the *flood plain* of a *watercourse* also provide for the storage of flood waters and reduce energy associated with flood flows and can contribute to reducing downstream erosion.

Regulated Area for *Wetlands*



3.7.1 Wetland General Policies

Within a regulated *wetland* area, *development activity* may be permitted in accordance with the *Natural Hazard General Policies* and shall demonstrate consistency with all of the following criteria:

1. Only *development activity* explicitly permitted by the *Wetland Development Activity Policies* shall be permitted.

2. *Development activity* is not likely to affect the control of flooding or erosion or unstable soils.
3. The total extent of *interference*, where permitted, shall be minimized.
4. No net increase in *fill,* including through sedimentation related to stormwater discharge shall be permitted.
5. *Hydrologic functions* which directly contribute to a *wetland*'s ability to mitigate natural hazards shall be maintained, including the maintenance of hydrophytic vegetation, hydric soils, hydroperiods, water balance, water recharge and/or discharge.
6. Surface water connections to or from a *wetland* shall not be altered.
7. Alternative locations have been evaluated and it has been determined that there is no reasonable ability to avoid the *wetland* or other areas.
8. Regulated *wetland* boundaries that are requested for review or revision shall be supported by evaluations conducted by an Ontario Wetland Evaluation System (OWES) qualified professional during the growing season (June-Sept) and amended in accordance with the *Regulation Limit Amendment Procedures*.

3.7.2 Wetland Development Activity Policies

Within a regulated *wetland* area, *development activity* may be permitted in accordance with the *Wetland General Policies* and shall demonstrate consistency with all of the following applicable criteria:

Residential Uses

1. *Development activity* related to the replacement of an existing residential *dwelling unit.*
2. Minor additions to an existing *dwelling unit* may be permitted up to a cumulative total *gross floor area* not exceeding 50 m^2.
3. Maintenance or replacement of an existing private sewage disposal system supporting an existing *dwelling unit*.
4. A maximum of one (1) *accessory* structure associated with an existing *dwelling unit* may be permitted up to a total *gross floor area* not exceeding 50 m^2.

Infrastructure

5. *Development activity* associated with infrastructure or utilities may be constructed, realigned or in accordance with the completion of an Environmental Assessment under the *Environmental Assessment Act*.
6. Maintenance of an existing road or driveway.
7. Maintenance or repair of an existing drain.

Passive or Low Intensity Uses

8. *Development activity* associated with any of the following uses:
   a. *Wetland* conservation and restoration activities and projects.
   b. *Flooding hazard* and *erosion hazard* control works.
   c. Passive or low intensity outdoor recreation and education, including trail systems, where flows are not impacted.
   d. Existing agricultural activities.
   e. Selective tree harvesting.

3.7.3 Wetland Offsetting

Where *development activity* or *site alteration,* that would result in loss of *wetlands,* is granted as part of a federal or provincial approval, or as part of an infrastructure project permitted by the *Wetland Development Activity Policies,* applicants shall be required to offset the loss where it can be demonstrated that:

1. The type of *wetland* being compensated is a swamp or marsh type *wetland* (bogs and fens are ineligible for compensation or offsetting projects).
2. A detailed compensation plan (*wetland* offsetting plan) indicates how a *hydrological function* gain will be achieved through the *development* or *site alteration*.
3. Compensation or offsetting shall generally be provided within the same catchment.
4. Post-effectiveness monitoring is provided for an appropriate length of time determined to the satisfaction of the RVCA.
5. All costs incurred by the RVCA related to agreements associated with a compensation or offsetting project shall be borne by the applicant.

3.8 Other Development Activity Policies

Policies contained in this section relate to specific *development activity* that by their nature may be considered broadly in their policy application, and that the *development activity* may coincide with a variety of or multiple natural hazards.

3.8.1 Restricted Uses

Specified land uses have been identified, by provincial interest, as higher risk due to the nature of the use and are inappropriate to be located where natural hazards are present. Therefore, *development activity,* within a *regulated area*, related to the following uses shall be considered a restricted use for the purposes of policies in this document:

a. Institutional use, including hospitals.
b. Long-term care homes.
c. Retirement homes.
d. Pre-schools.
e. School nurseries.
f. Day cares and schools.
g. Essential emergency service such as that provided by fire, police, and ambulance stations.
h. Electrical substations.
i. Uses associated with the disposal, manufacture, treatment, or storage of *hazardous substances*.

Within a *regulated area*, *development activity* may be permitted in accordance with all appropriate natural hazard policies and shall demonstrate consistency with all the following criteria:

1. Proposed work does not create a new *restricted use* within a hazard, including any required *access allowance*.
2. Does not result in the expansion of the restricted use.
3. Protection against natural hazards of an existing *restricted use* is improved.
4. Creates or improves *safe access* to a dry access standard shall be permitted and prioritized for existing restricted uses.

3.8.2 Non-Permitted Uses

Specific *development activities* have been identified as being inappropriate to locate within a natural hazard due to the inability of protecting against or mitigating risks created by the use to public health and safety or property damage. The following shall not be permitted within any regulated natural hazard, *watercourse* or *wetland*:

a. Above-ground pools.
b. New private beaches.
c. *Habitable* floating *buildings*.

3.8.3 Marine Facilities

Marine facilities by their nature are required to be placed within a *watercourse* or inland lake. The location of proposed structures may include lands adjacent to those owned by the applicant. The RVCA may require permission from the owner of the land over which the *development activity* is proposed. The policies in this section are intended apply to a *building* or *structure* located in-water, and include, but are not limited to marinas, *boathouses*, *boat ports* and docks.

3.8.3.1 Marine Facilities General Policies

Within a *regulated area* of an inland lake or *watercourse, development activity* may be permitted in accordance with all appropriate natural hazard policies and shall demonstrate consistency with all of the following criteria:

1. *Development activity* shall be designed by a qualified engineer appropriate to coastal, riverine and lacustrine hydraulics.
2. *Development activity* does not impede the normal flow of water and is constructed in a manner to minimize potential shoreline erosion and slope stability impacts.
3. *Buildings* or *structures* are properly anchored to minimize risk of displacement during a flood event.
4. *Buildings* or *structures* shall not contain *habitable* space or be used for human habitation or overnight accommodations and there is no opportunity for conversion to a *habitable* space.
5. *Buildings* or *structures* shall not be permitted to be publicly or privately serviced, except for floodproofed electrical, in conformity with Electrical Safety Authority (ESA) requirements.

3.8.3.2 Marine Facilities Development Activity General Policies

Within a *regulated area* of an inland lake or *watercourse, development activity* may be permitted in accordance *Marine Facilities General Policies* and shall demonstrate consistency with all of the following criteria:

Marinas

1. Commercial *marine facilities* shall not be permitted within a *wetland*.

Boathouses and Boat Ports

2. One (1) *accessory building* or *structure*, per associated property, having a minimum shoreline frontage of 60 m and is not located within a *narrow channel*.
3. *Buildings* or *structures* shall be limited to a maximum of one (1) storey.
4. *Buildings* or *structures* shall meet applicable standards for *floodproofing* for *accessory structures*.
5. The projected exterior dimensions of any *building* or *structure* does not exceed 8 m in width by 10 m in length projected from the shoreline.
6. The *building* or *structure* has an opening to the water of an appropriate size to accommodate a boat and contains a wet slip inside of the structure.

Docks

7. Docks shall be limited to a maximum shoreline width of 2 m for access purposes.
8. Shall be permitted up to a maximum cumulative total *gross floor area* of 30 m^2 per associated lot.
9. Shall not be constructed on a permanent foundation, such as concrete or cribs.

3.8.4 Passive or Low Intensity Recreational Development Activities

The use of *hazardous lands* may be desirable as part of community development and provide the dual purpose of making efficient use of land use while protecting public health and safety and property damage. Low intensity or passive recreation may include but are not limited to open space associated with public parks, recreational trails, boardwalks, pedestrian crossings, picnic facilities.

Within a *regulated area*, *development activity* for passive or low intensity recreational uses may be permitted in accordance with all appropriate natural hazard policies and shall demonstrate consistency with all of the following criteria:

1. *Wetlands*, *watercourse*s and dynamic beach hazards are avoided.
2. The area of construction disturbance is minimized to the extent feasible.
3. The number of *watercourse* crossings is minimized and designed to the satisfaction of RVCA.
4. where pervious surface is being converted to impervious, that stormwater management controls are provided to the satisfaction of RVCA.
5. *Buildings* are located outside of the hazard.
6. Servicing is located outside of the hazard.
7. Placement of *fill* is not required.
8. *Access allowances* are maintained.

3.8.4.1 Recreational Trails

That development, *interference* and alterations associated with trails may be permitted within a *regulated area* where it has been demonstrated through appropriate technical reports to the satisfaction of RVCA that:

1. The trails be made of pervious surface material
2. The riparian zone of *watercourses* is avoided.
3. The risk to public safety from natural hazards is not increased by avoiding active erosion zones, such as outside meander belts and valley walls where banks are eroding.
4. Maintaining erosion *access allowances*.
5. *Watercourse* crossings have their approaches at grade and allow for conveyance of high flows.
6. The *hydrologic function* of *wetlands* is maintained.
7. Risk to public safety is not increased.

3.8.5 Conservation Projects

*Conservation project*s, such as stream rehabilitation works, small impoundments and realignments which restore or enhance *watercourse* morphology or aquatic health and habitat, *wetland* creation or restoration may be permitted provided that:

1. The *hydrologic function* benefits of the project are demonstrated to the satisfaction of the RVCA.
2. Stream bank stability and erosion control is enhanced.
3. *Hydrologic function*s are restored and enhanced using *best management practices* and where appropriate remedial measures.
4. *Natural channel design* principles are followed to the extent possible.
5. Maintenance requirements are minimized.

3.8.5.1 Municipal Infrastructure Coordination

Certain *conservation projects* may coincide within or adjacent to existing municipal infrastructure such as municipal drains, flood control structures or *stormwater management facilities*. Where an overlap is proposed, the RVCA shall require that *conservation projects* take into consideration and promote improved functionality of the feature through reservoir and flood mitigation, and protection against sedimentation in order to minimize maintenance of municipal infrastructure.

3.8.6 Innovative Technologies and Pilot Programs

The RVCA acknowledges the evolving nature of information acquisition and precision, tools and techniques, design or construction methodologies associated with natural hazard management will become available over time. The RVCA is committed to working within the natural hazard management industry to adopt or implement new innovations where the protection standards of public health and safety and property damage can be maintained and exceeded to the satisfaction of the RVCA.

3.9 Act Specified Activity Policies

3.9.1 Electricity Act, 1998

In the case of an application for a permit to engage in development related to a renewable energy project as defined in subsection 2 (1) of the *Electricity Act, 1998*:

a. the authority shall not refuse the permit unless it is of the opinion that it is necessary to do so to control flooding, erosion, dynamic beaches or unstable soil or bedrock; and

b. despite subsection (4) of the *Conservation Authorities Act*, the authority shall not attach conditions to the permit unless the conditions relate to controlling flooding, erosion, dynamic beaches or unstable soil or bedrock.

3.9.2 Minister's Order

Section 28.1.1 of the *Conservation Authorities Act* provides that the Minister may, by order:

a. Direct an authority not to issue a permit to a person who wishes to engage in a specified activity that, without the permit, would be prohibited under section 28 in the area of jurisdiction of the authority; or

b. Direct the authorities that are specified in the order not to issue permits to persons who may wish to engage in a type or class of activity described in the order that, without the permit, would be prohibited under section 28 and to continue to refrain from doing so for such period as may be specified in the order.

3.9.3 Mandatory Permits, Zoning Orders

Section 28.1.2 of the *Conservation Authorities Act* provides that an authority that receives an application for a permit to carry out a development project in the authority's area of jurisdiction shall not refuse to issue a permit for any application submitted to an authority under section 28.1 if:

a. An order has been made by the Minister of Municipal Affairs and Housing under section 34.1 or 47 of the *Planning Act* authorizing the development project under that Act;
b. The lands in the authority's area of jurisdiction on which the development project is to be carried out are not located in the Greenbelt Area designated under section 2 of the *Greenbelt Act, 2005;* and
c. Such other requirements as may be prescribed are satisfied.

3.9.4 Accessibility for Ontarians with Disabilities Act, 2005

Permits issued under Section 28 of the Conservation Authorities shall have regard for the *Accessibility for Ontarians with Disabilities Act*. The RVCA supports the integration of accessibility standards where necessary to full its mandate to protect public health and safety and property damage.

Conditions imposed as part of an approved permit shall not restrict requirements under Part IV.1 of Ontario Regulation 191/11 of the Accessibility for Ontarians with Disabilities Act, 2005

4 Review Guideline Compendium

The RVCA has developed a series of guidelines to assist in the technical review of applications for *development activity*. These guidelines have been consolidated into the RVCA Development Activity Review Guideline Compendium and shall be made available publicly at rvca.ca.

The Development Activity Review Guideline Compendium does not represent board approved policies. It is intended to provide information, clarification and transparency to the submission and review process for *development activity* permit applications. The guidelines are not intended to be exhaustive as site-specific circumstances may require additional considerations to be made, which is encouraged to be discussed with RVCA staff as part of a pre-consultation prior to making an application. The RVCA reserves the right to add and amend guidelines, on an on-going basis in support of the regulation administration.

The following table provides a summary of contents available in the RVCA Review Guideline Compendium:

Table 5: Review Guideline Compendium Content Overview

Guideline	Title	Description
	Frequently Asked Questions	General Questions
1	Boathouse, Boat Ports and Docks	Guideline for the review of applications for the construction of boathouse, *boat ports* and docks, and best management practices for compliance with other permitting bodies.
2	Balanced Cut and Fill	Guideline for the review of applications for the placement and removal of *fill* material and modification of floodplains.
3	Wetlands, Organic Soil, (Natural Assets)	Guidelines for pre-consultation related to wetlands, organic soils and other natural assets and the review of development activity permit application submissions
4	Landslide Hazard and Risk Assessment (Interim)	Guideline for the review of landslide hazard and risk assessment related to sensitive marine clay

5 Definitions

All terminology shall be considered to have their ordinary meaning as defined by common usage except as defined specifically by this document. Defined terms are listed alphabetically in this section and are shown in italics for ease of reference:

5.1 Policy and Procedures Definitions

Access allowance: means a 6-metre *development* setback applied to the stable slope allowance/top of stable slope/*meander belt allowance* and forming part of the *erosion hazard* for confined (apparent) and unconfined (not apparent) *river* or *stream* systems including *flood plain* limits. The *access allowance* is applied to provide for emergency *access* to hazard prone areas, provide for construction access for regular maintenance and access to the site during or after a natural hazard event or failure of a slope or a *structure*, and provide for protection against unforeseen or predicted external conditions which could have an adverse effect on the natural conditions or processes acting on or within a hazard prone area.

Accessory building or structure: means a non-*habitable building* or *structure* that is subordinate and exclusively devoted to a main *building* or *structure* and located on the same lot.

Agricultural activity: the growing of crops, including nursery and horticultural crops; raising of livestock; raising of other animals for food, fur or fibre, including poultry and fish; aquaculture; apiaries; agroforestry; maple syrup production; and associated on-farm *building*s or *structure*s but does not include the importation of *fill* materials.

Area of shallow flooding: means low-lying areas where flooding may occur, but whether flooding occurs by backwater from tributaries or channels, oversaturation and exfiltration of soils or intense rainfall events is unknown.

***Balanced Cut and Fill*:** A specific approach to *development activity* where *fill* material that is placed within a *flood plain* is offset by an equal amount of material removed from the same *flood plain*. Balancing the cut and fill maintains the flood storage capacity of a *flood plain* and protects the natural services it provides.

Boathouse: means a one-storey *marine facility* that has a peaked or hipped-roof, does not contain *habitable* living space, has an opening to a waterbody of an appropriate size to accommodate a maximum of two boats and is connected to a waterbody.

Boat port: means a one-storey roofed *marine facility* that that has a peaked or hipped-roof is not enclosed by any walls, has an opening to a waterbody of an

appropriate size to accommodate a maximum of two boats and is connected to a waterbody by a boat slip or boat lift.

Building: means,
a) a *structure* occupying an area greater than ten square metres consisting of a wall, roof and floor or any of them or a structural system serving the function thereof including all plumbing, works, fixtures and service systems appurtenant thereto;
b) a *structure* occupying an area of ten square metres or less that contains plumbing, including plumbing appurtenant thereto;
c) plumbing not located in a *structure*;
d) a sewage system; or
e) *structure*s designated in the Ontario *Building* Code

Confined system: a *watercourse* located within an *apparent valley*, either with or without a *flood plain*, and is confined by valley walls. The *watercourse* may be located at the toe of the valley slope, in close proximity to the toe of the valley slope (less than 15 m) or removed from the toe of the valley slope (more than 15 m). The *watercourse* can contain perennial, intermittent or ephemeral flows and may range in channel configuration, from seepage and natural springs to detectable channels.

Conservation Projects: Means projects or activities intended to maintain, preserve, protect, improve, enhance or restore components or functions of natural features. These may occur within or adjacent to *wetland*s, along shorelines, or within portions of the flooding or *erosion hazard* limit.

Development Activity:
a) the construction, reconstruction, erection or placing of a *building* or *structure* of any kind,
b) 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*,
c) site grading, or
d) the temporary or permanent placing, dumping or removal of any material, originating on the site or elsewhere.

Dwelling unit: means one or more *habitable* rooms, occupied or capable of being occupied as an independent and separate housekeeping establishment, in which separate kitchen and sanitary facilities are provided for the exclusive use of the occupants.

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

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

Fill: Means any material, such as earth, sand, gravel, *building* materials, storage, rubble, garbage, whether that material is placed on a permanent or temporary basis and whether that material originates on the site or elsewhere, that changes the natural grade, increases the elevation, diminishes flood storage capacity or interferes with the *hydrologic function* of a natural feature.

100 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.

100 year flood event standard: means rainfall or snowmelt, or a combination of rainfall and snowmelt producing at any location in a river, creek, stream or *watercourse* a peak flow that has a probability of occurrence of one per cent during any given year.

Flood line**:** The flood line represents the continuous delineation of the horizontal extent inland of a regulated *flood plain*.

Flood plain: for river, stream and small inland lake systems, means the area, usually low lands adjoining a *watercourse*, which has been or may be subject to flooding hazards

Floodproofing: means structural changes or adjustments incorporated into the basic design or construction, or *alteration* of individual *building*s, *structure*s or properties to protect them from flood *dam*age under the standards set by the Ministry of Natural Resources Technical Guide - *River* and *Stream* Systems: *Flooding hazards* Limit (2002).

Gross floor area: when referring to a *building* or *structure*, means the total area of all floors of *habitable* space or, capacity for conversion to *habitable* space, measured between the outside surfaces of exterior walls and includes a basement.

Habitable: means any area that has the potential to be used as or converted to residential living space, including basements, without significant modifications.

Hardscaping: means impervious surfaces used as part of landscaping through placement of materials such as asphalt, concrete, interlock brick or other similar hard surfaces and which generally involves a decrease in water retention, infiltration and an increase in runoff at a particular area.

Hazardous lands: means land that could be unsafe for *development* because of naturally occurring processes associated with flooding, *erosion*, *dynamic beach*es or unstable soil or bedrock.

Hazardous sites: means property or lands that could be unsafe for *development* and *site alteration* due to naturally occurring hazards. These may include unstable soils (*sensitive* marine clays [leda], organic soils) or unstable bedrock (karst topography).

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*.

Hydrologic function: means those functions of the hydrological 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.

Interference: in reference to *wetland*s or *watercourse*s, means any anthropogenic act or instance which hinders, disrupts, degrades or impedes in hydraulic or *hydrologic functions* of a *wetland* or *watercourse*.

Marine facility: means a *building* or *structure* which is used to take a boat into or out of a waterbody to moor, berth or store a boat and may include a boat launching ramp, boat lift, dock, *boat port* or *boathouse* and a water pump house.

Meander belt allowance: means a limit for development within the areas where the river system is likely to shift. It is based on twenty (20) times the bank full channel width where the bank full 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.

Natural channel design: means an approach to management and design such that new or reconstructed *stream* channels and their associated *flood plain* riparian systems are designed to be naturally functional, stable, healthy, productive, and sustainable. Natural channel systems develop from the interaction of climatic and physical conditions within a *watershed* and the conveyance and storage of water and sediment.

One zone concept: means flooding hazard approach whereby the entire *flood plain*, as defined by the "100 year flood", is considered the *floodway* and all *development* is prohibited or restricted. For reference, this is the concept utilized by RVCA in administering its regulation.

Regulated area: means an area mapped as a natural hazard, *wetland*, or *watercourse*, plus any prescribed allowances described in Ontario Regulation 41/24.

Regulatory flood: means the mapped *flooding hazard* limit.

Regulatory flood level: means the levels or elevations used when mapping the *regulatory flood plain*, as calculated for each cross-section through an engineering study. Depending on the local hydraulic conditions, the computed water surface elevation, the energy grade or a value in between is generally taken as the Regulatory Flood Level (RFL).

Replacement: means the removal of an existing *building* or *structure* and the construction of a new *building* or *structure*. It does not include reconstruction of remnant foundations or derelict or abandoned *building*s or *structure*s.

Safe access: means locations where, during the *Regulatory flood,* are at a specified level, either by depth, or a factor of depth and velocity, that may preclude access for emergency services or evacuation of the public.

Shoreline protection works: means the combination of non-structural or structural works and allowances for slope stability and flooding, *erosion* or *dynamic beach hazard*s to reduce the *dam*ages caused by flooding, *erosion* or other water related hazards, and to allow *access* for their maintenance and repair.

Site alteration: activities such as grading, excavation and the placement of *fill* that would change the landform and natural vegetative characteristics of a site. In the context of these policies, *site alteration* includes, but is not limited to activities such as *landscaping* or *hardscaping*.

Stormwater management facility: means the components of infrastructure that serve as a primary function to control stormwater prior to outletting to a natural *watercourse* and includes but is not limited to, stormwater management ponds, infiltration trenches, bioretention facilities, enhanced swales, and oil and grit separators and supporting infrastructure may include outfalls structures, plunge pools, outfall channels and maintenance access roads.

Structure: means anything constructed or erected, the use of which requires location on the ground, or on water, or attachment to something having a fixed location on the ground, or on water, and without limiting the generality of the foregoing, includes walls, floors, roofs, signs, billboards, and private outdoor swimming pools, and an object designed to float, but does not include free standing walls, hedges and fences, camper or travel trailers.

Surface water feature: refers to water-related features on the earth's surface, including *headwater*s, *river*s, *stream* channels, inland lakes, seepage areas, recharge/discharge areas, springs, *wetland*s, and associated riparian lands that can be defined by their soil moisture, soil type, vegetation or topographic characteristics.

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.

Unconfined system: means those systems where the *watercourse* is not located within a valley corridor with discernable slopes, but relatively flat to gently rolling plains and is not confined by valley walls. The *watercourse* can contain perennial, intermittent or ephemeral flows and may range in channel configuration, from seepage and natural springs to detectable channels. Within RVCA's *watershed*, all valleys less than 3 metres in height are considered *unconfined system*s.

Vacant lot of record: means a lot that has been separated from a larger parcel which has not yet been developed. It is a parcel or tract of land described in deed or other legal document that is capable of being legally conveyed and contains no pre-existing *building*s or *structure*s, on or before April 1, 2024

***Valley or Valleyland*:** means land that has depressional features associated with a river or stream, whether or not it contains a river or stream system.

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 *watercourse* and its tributaries.

Wetland:
(a) is seasonally or permanently covered by shallow water or has a water table close to or at its surface,
(b) directly contributes to the hydrological function of a watershed through connection with a surface *watercourse*,
(c) has hydric soils, the formation of which have been caused by the presence of abundant water, and
(d) has vegetation dominated by hydrophytic plants or water tolerant plants, the dominance of which have been favoured by the presence of abundant water.

Rideau Valley Conservation Authority

Development Activity Review Guideline Compendium

Issued in support of Policies and Procedures for *Development Activity* permit applications made under Section 28.1 of the *Conservation Authorities Act.*

November 1, 2024

Version 1.0.0

Department	Program	Review Period	Guideline Number
Regulations	Section 28	Annual	REGS-01-24

Version Number	Approved By	Resolution	Effective Date
1.0.0	General Manager	N/A	November xx, 2024

REVIEW GUIDELINES

The RVCA has developed a series of guidelines to assist in the technical review of applications for development activity. These guidelines have been consolidated into the RVCA Review Guideline Compendium and shall be made available publicly at rvca.ca.

The Review Guideline Compendium does not represent board approved policies. It is intended to formally provide information, clarification and transparency to the submission and review process for *development activity* permit applications. The guidelines are not intended to be exhaustive as site-specific circumstances may require additional considerations to be made, which is encouraged to be discussed as part of a pre-consultation with RVCA staff prior to making an application. The RVCA reserves the right to add and amend guidelines, on an on-going basis.

The following table provides a summary of contents available in the RVCA Review Guideline Compendium:

Table 5: Review Guideline Compendium Content Table

Guideline	Title	Description
	Frequently Asked Questions	General Questions
1	Boathouse, Boat Ports and Docks	Guidelines in the review of applications for the construction of boathouse, boat ports and docks, and best management practices for compliance with other permitting bodies.
2	Balanced Cut and Fill	Guidelines in the review of applications for the placement and removal of fill material and modification of floodplains.
3	Wetlands, Organic Soil, (Natural Assets)	Guidelines for pre-consultation related to wetlands, organic soils and other natural assets and the review of development activity permit application submissions
4	Landslide Hazard and Risk Assessment (Interim)	Guideline for the review of landslide hazard and risk assessment related to sensitive marine clay

Using this Document

a. This document has been prepared to provide direction, clarity, and transparency on how the RVCA administers and implements Section VI of the *Conservation Authorities Act* and Ontario Regulation 41/24.
b. Reference should be made to the Act and regulations under the Act for the complete legal text.
c. This document is to be read in conjunction with the Development Activity Policies and Procedures document
d. Permits issued in accordance with this document are limited to the responsibilities set out in Part VI of the *Conservation Authorities Act* and *Ontario Regulation* 41/24, *Prohibited, Activities, Exemptions and Permits* and do not represent or supersede approvals required under any other Act or legislation.
e. All terminology shall be considered to have their ordinary meaning as defined by common usage except as defined specifically by this document. Defined terms are listed alphabetically in the Definitions section of this document and are shown in italics for ease of reference.

Frequently Asked Questions (FAQS)

This section is intended for information and clarification purposes only and does not represent policies applicable to the development activity permit application process. This section provides responses to questions routinely requested when interpreting this document:

Do exceptions apply to multiple instances of excepted work?
No. The exception granted by Ontario Regulation 41/24 from requiring a permit does not apply to subsequent development activity. It does not mean that additional work shall not be permitted, however the review and approval of subsequent work will be reviewed in consideration of cumulative development activities.
The exceptions under Section 5 of Ontario Regulation 41/24 refer to "a" or "an" in the singular by intent and only apply to the first instance of the excepted development activity on a parcel. Therefore, additional described development activities are not considered exempt.

Do you regulate beaver dams?
No the RVCA does not regulate the activities of beavers. You are recommended to review best management practices related to Beavers and Beaver Dams

Is my property regulated and do I need a permit if it is not showing as regulated on RVCA's geoportal mapping?
It might be. The RVCA geoportal mapping is a tool used to assist and simplify the review of areas where known hazards exist. If an area is not mapped but meets the definition of Provincial legislation it may be still be regulated.

What is the "limit of hazard"?
When multiple natural hazards are present the limit of hazard is treated as the greatest extent.

Do I need a permit for a recreational vehicle in a regulated area?
In short it may depend on the type of your recreational vehicle. Motorhomes, travel trailers, fifth-wheel travel trailers and campers are generally treated as vehicles and not applied under development activity requiring permits. This distinction is that they require no notice in order to be moved in the event of hazardous event, and can be operated with standard class G licensing and.
Park model homes and mobile homes, however do require a permit. These structures have greater requirements for hauling, such as additional licensing (both towing and travel), potential semi-permanent or permanent servicing requirements, structural assembly (i.e. skirting) that would prevent it being moved immediately in the event of a flood. Additionally, generally require these types of recreational homes require

site preparation to accommodate the weight associated with the structure such as compacted gravel or concrete pads.

Can I use riprap or armour stone on my shoreline?

The RVCA permits the use of vegetated or engineered riprap to address erosion hazards. The use of ornamental riprap is generally not permitted along a shoreline.

The use of large block format stone, commonly referred to as armour stone, is generally prohibited on the shoreline or within 15 metres of all watercourses and inland lakes, with the exception of along the Ottawa River shoreline.

REVIEW GUIDELINE 1

Rideau Valley Conservation Authority

Boathouses, Boat Ports and Docks

Last Updated October XX, 2024

Version 1.0.0

Boathouses, Boat Ports and Docks Technical Review Guidelines

This document serves as a guideline for the construction of boathouses, boat ports and docks. Development of the riparian zone without proper mitigation measures can have long term cumulative impacts that can result in aggravating flood and/or erosion hazards. These guidelines aim to provide professionals and property owners with acceptable minimum requirements and design specifications and will enable RVCA to make informed decisions regarding proposed development activities.

Version Number	Version Date	Revision Summary	Authors
V.#.#	YYYY/MM/DD	Section #, brief description	Staff
V.1.0	2024/09/26	Technical Guideline for Development Activity	Megan Peacock Eric Lalande

1. Development Activity Application Considerations

These guidelines are in direct reference to the RVCA's Development Activity Policies and Procedures document and shall be considered in support of policy requirements.

1.1. New Boathouse/Boat Port Construction

Submission related to the placement of new boathouses or boat port construction shall be reviewed in accordance with development policies and will take into consideration the following:

a. A maximum of one boathouse or boat port will be considered per lot.
b. Boathouses shall be designed to withstand the impacts of flooding.
c. The boathouse is designed and used solely for the purpose of storing and docking boats and related equipment.
d. Peaked or hipped roofs should direct drainage way from shoreline and erosion risks.
e. The conversion of a boat port or boathouse is considered a development activity requiring a permit application.

1.2. Boathouse/Boat Port Reconstruction

Submission related to the placement of boathouse or boat port shall be reviewed in accordance with development policies and will take into consideration the following:

a. The replacement structure is no larger than existing or the maximum size for new construction.
b. The *repair/replacement* will not alter the use or have the potential to alter the use of the structure.
c. Any *repair*, *alteration* or *replacement* must bring the structure more into compliance with the provisions in “New Boathouse/Boat Port Construction”.

1.3. Docks

Submission related to the placement of docks shall be reviewed in accordance with development policies and will take into consideration the following:

a. Placement on a seasonal basis to avoid damage from the spring freshet.
b. A maximum of one dock connection to the shoreline per lot will be considered
c. The location for new dock placement shall be directed to minimize shoreline disturbance.
d. Seasonal anchoring methods are provided to avoid permanent in-water obstructions
e. Shoreline alteration modifications are minimized in line with shoreline development activity policies.
f. Winter storage is located outside of the flood plain or anchored to avoid a hazard through displacement.

1.4. Marinas

Commercial marinas often require more complex review and studies to the cumulative nature multiple boat slips, and intensity of activities. It is recommended that a pre-consult meeting with RVCA Regulations and Planning staff be undertaken before submitting an application.

2. Best Management Practices

Boathouses, Boat Ports and Docks are a type of development activity the intersects with considerations above and beyond those required to obtain approval under Section 28 of the Conservation Authorities Act, in order to ensure your project is successful the following best management practices are recommended:

a) the dock be located existing impacted or open areas wherever possible;
b) the structure be setback from the projected side lot lines, as specified by the local Township/Municipal zoning by-laws;
c) Avoid in-water works during the prescribed timing windows, as set out by the Ministry of Natural Resources (MNR).
d) Reduce overall impact to your property by concentrating development to one area.
e) Minimize the area disturbed and preserve vegetation near the shoreline where possible.
f) Consider placing boathouses and other shoreline structures in deeper areas with less vegetation. Areas with more vegetation are typically more diverse habitats.
g) Minimize the area of aquatic habitat disturbed by preserving aquatic habitat features, such as large boulders, logs, and aquatic vegetation where possible. If natural materials need to be removed, relocate them to an area with similar habitat conditions.
h) Avoid the use of heavy equipment below the 100-year flood line mark, where possible.
i) All equipment that is to be used near water will arrive on-site in a clean state; To mitigate the potential risk for invasive species colonization within the newly graded areas please follow the guidance in the Clean Equipment Protocol Document: https://www.ontarioinvasiveplants.ca/wp-content/uploads/2016/07/Clean-Equipment-Protocol_June2016_D3_WEB-1.pdf
j) Manage sediment laden water flowing onto or through the site during all phases for the project: Inspect erosion and sediment controls daily during all phases of the project. Use biodegradable materials for erosion and sediment controls whenever possible. Keep erosion and sediment controls in place until all disturbed ground has been stabilized and suspended sediments have settled.
k) Docks should be constructed to allow light penetration under the entire structure for aquatic plant growth
l) Aquatic species (i.e. fish, turtles) trapped within the work area should be safely relocated outside of the enclosed area. This may require approval from the MNR, please contact MNR for more information.

3. Boathouse, Boat Port or Dock Application Submission Checklist

Minimum Requirements	Checklist
RVCA Application Form (signed and dated)	
Letter of Authorization if made on behalf of the landowner	
Legal Survey of Property: - showing all boundaries, including water's edge	
Site Plan: - Property dimensions - Setbacks and separation existing buildings, septic, etc. - Geodetic elevation (grades) in the area of development activity in "meters above sea level"	
Construction Drawings: - All drawings stamped by a Professional Engineer (P.Eng) (for boathouses and boat ports) - Building elevations, top-down and cross-sections views. - Anchoring Methods and/or Techniques - Floodproofing Methods	
Sediment and Erosion Control Plan (and/or dewatering plan).	
Other Information required based on project type (eg.): - Winter storage plan	

REVIEW GUIDELINE 2

Rideau Valley Conservation Authority

Balanced Cut and Fill

Last Updated October XX, 2024

Version 1.0.0

Balance Cut and Fill Technical Review Guidelines

This guideline outlines the procedures and considerations necessary for the placement of fill and grading activities within the regulatory flood plain under the jurisdiction of the Rideau Valley Conservation Authority (RVCA). The purpose of this guideline is to:

a. Guide the review of applications for the placement of fill, excavation, or grade modifications within a regulated area such that adverse effects of hazardous lands are not increased either on-site or elsewhere.
b. Provide clear standards for the submission of technical reports, including hydraulic and geotechnical assessments, as needed, to ensure the safe and sustainable execution of fill placement and grading operations within a flooding hazard.

Fill placement exceeding a total or cumulative volume of 1000 m^3 (considered as a large-scale project) may not be approved by RVCA staff and will require approval by the RVCA Executive Committee. Pre-consultation shall be required as additional requirements beyond these guidelines may be required for large-scale projects.

Version Number	Version Date	Revision Summary	Authors
V.#.#	YYYY/MM/DD	Section #, brief description	Staff
V.1.0	2024/09/26	Technical Guideline for Development Activity	Tyler Bauman Eric Lalande

1. Fill Placement, Excavation or Grade Modification Guidelines and Application Technical Considerations

1.1. Submission Package

The RVCA will expect the application to be submitted with the following components:

- An application for proposed works
- Description of the project (location , background, purpose)
- complete description of any type of fill proposed to be placed or dumped.
- Detailed balanced cut and fill analysis findings (analysis table, drawings).
- Supporting technical reports as needed

1.2. Submission Plan Requirements

The analysis must be completed and stamped by a Professional Engineer. The following information is required on all Cut and Fill Plans:

- All elevations needs to be referenced to geodetic datum and the source of topographic information clearly identified.
- Drawing should be prepared in CAD format and submitted to the RVCA in PDF. The RVCA may require the applicant to provide GIS data set if necessary.
- For every plan drawing, a summary table is required that shows the volume of cut and/or fill detailed within the drawing, at every 0.3 m increment (for the applicable range between the HWL and RFL). This will enable RVCA staff to better understand complex grading schemes with multiple cut and fill locations.

1.3. Supporting Technical Reports

Supporting technical reports (soil, hydraulic, geomorphological, geotechnical, and/or slope stability) may be required in some instances for thorough assessment of the proposed cut/fill works. RVCA staff may identify any supporting reports required for a cut and fill application, preferably during pre-submission consultation. The industry standard versions of technical software should be used, and existing regulatory models shall be used where possible, after confirmation with RVCA during pre-submission consultation. The purpose of such reports is to alleviate Flooding and Erosion Hazard concerns arising from the proposed cut and fill application. For example, supporting reports may be requested to:

- Show that the proposed development activities (i.e. cut and fill) will result in no increase in upstream water surface elevations and no increase in flow velocities in the affected river cross sections under a full range of potential flood discharge conditions (1:2 year to 1:100 year return periods).
    - Compliance with this requirement shall be demonstrated by means of hydraulic analysis completed to the satisfaction of RVCA technical staff.
    - HEC-RAS is to be used for hydraulic analysis. Only the HEC-RAS version and methods (i.e. 1D steady-state) used in the relevant RVCA flood mapping model(s) will be accepted for modelling submissions. RVCA staff can provide this information upon request.

- Show that that the proposed development activities (i.e. cut and fill) will result in no increase in erosion due to material interaction with high flow velocities in the affected river cross sections under a full range of potential flood discharge conditions (1:2 year to 1:100 year return periods).

1.4. `Prohibited Fill Materials

The RVCA will not accept the following proposed fill materials:

a. slurry or other material from vacuum excavation (i.e. “vac trucks”).
b. slurrys from directional boring, drilling or other activities.
c. concrete slurrys or related products and by-products.
d. excavated material from the cleanout of storm water management ponds.

1.5. Permit Conditions for Fill Placement and Lot Grading

The RVCA may grant permission for the placement of fill (not exceeding 1000 m^3) and lot grading within a regulated area provided that:

- The placement of fill does not affect the control of flooding, erosion, dynamic beaches, and unstable soils or bedrock.
- The placement of fill is not within lands managed through other RVCA Development Activity Policies, such as watercourse interference and wetlands.
- Only clean fill may be placed which is in conformity with all relevant Ontario Ministry of the Environment, Conservation and Parks guidelines and requirements such as Ontario Regulation 406/19. The RVCA may require the submission of soils report prepared by a qualified environmental/geotechnical engineer and/or Professional Geoscientist for each location where fill is being imported.
- The soils report shall consist, as a minimum, of the following:
    - the municipal address of the site where soil originates from;
    - conformity with all relevant Ontario Ministry of the Environment, Conservation and Parks guidelines and requirements such as Ontario Regulation 406/19; and,
    - fill placement and lot grading activities for the installation of the septic systems and tile beds are required to be in accordance with Part 8 of the Ontario Building Code Act.
- The placement of fill, excavations and lot grading activities may be seasonally restricted and subject to a specific time frame.
- Following the completion of the fill placement or grading operations, the landowner/applicant will be required to submit an as-built survey to show that the finished grades are in conformity with the approved plans. This survey shall be prepared and certified by a Professional Engineer or an Ontario Land Surveyor (OLS) and must be referenced to geodetic datum. This certification must be received within 30 days following the completion of the fill placement.

1.6. Project Completion

Upon approval and completion of the project, additional documents will be required by the RVCA to ensure the development activities were completed as planned. The documents include:

a. An as-built drawing that has been prepared and certified by a Professional Engineer or an Ontario Land Surveyor and must be referenced to geodetic datum. The as-built is to include constructed spot elevations with distinctive font/color/symbol overlaid on the approved cut plans.
b. A brief memo that includes a recalculated volume summary table based on as-built conditions.
o

2. Detailed Balanced Cut and Fill Analysis Requirements

2.1. Compensatory Cut and Fill Guidance

In order to compensate for any fill placed within the flood plain, a cut volume of equal or greater quantity will be required elsewhere within the same parcel, and in land within the same reach if approved. An incrementally balanced cut and fill operation may be considered to compensate for losses in flood storage capacity which would result from the placement of fill within an area which is susceptible to flooding. Compensatory cut and fill plans must be developed based on the following guidance:

- The total cut volume must be equal to or greater than the total fill volume.
- The cut and fill volumes are required to be balanced in 0.3 m elevation increments.
- Balanced cut and fill elevation increments must be referenced from the nearest RFL.
- Elevation increments will be considered balanced when net fill/cut is ± 5% (0.95 – 1.05).
- Cut and fill activities are not permissible below the high water level (HWL), nor within areas impermissible by the RVCA Policies and Procedures (e.g. watercourse interference and wetlands) (see Figure 1).
- Only the volume of removed material below the regulatory flood level (RFL), above the HWL, and outside areas impermissible by the RVCA Policies and Procedures (e.g. watercourse interference and wetlands) will be included in the compensatory cut volume calculation (see Figure 1).

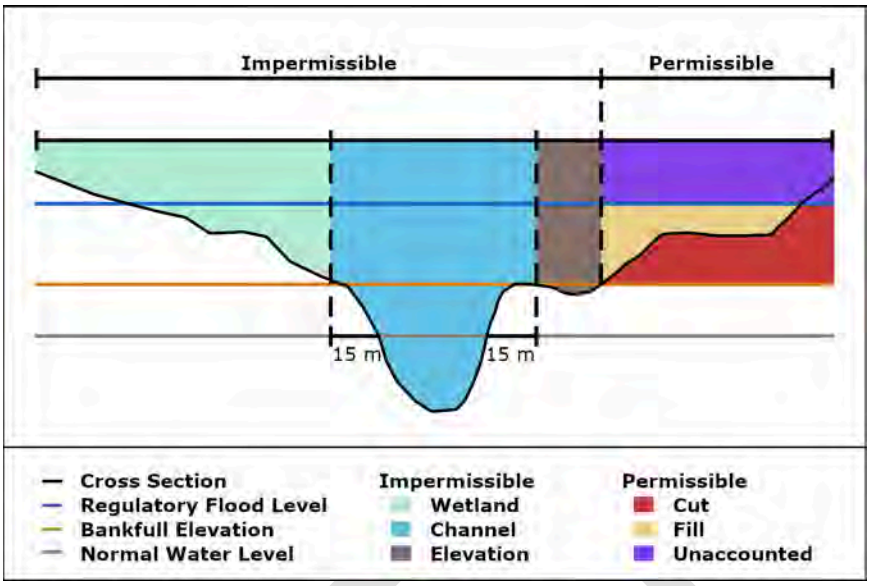


Figure 1: Identification of permissible cut and fill locations.

- Cut and fill locations must be within close proximity, the locations must have a maximum of 5 cm (0.05 m) difference between nearest cross-section RFL (see Figure 2).

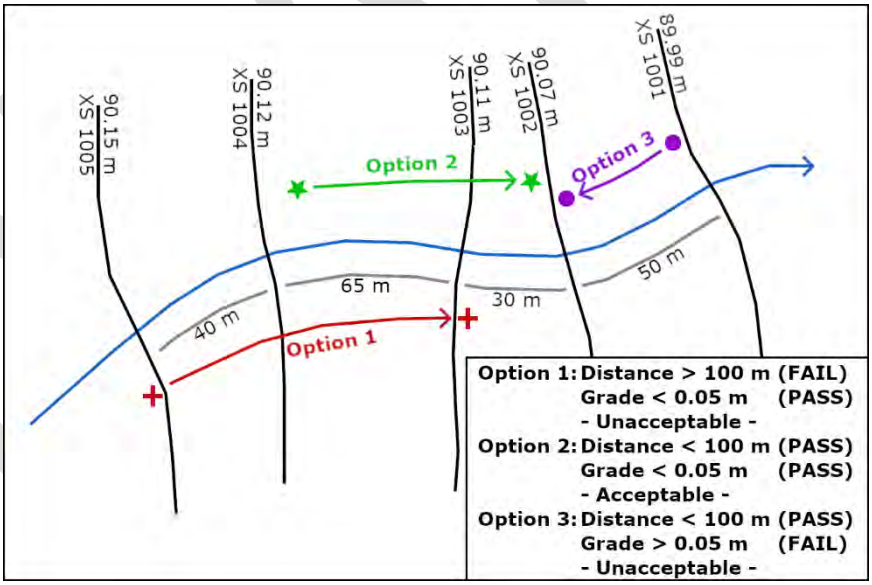


Figure 2: Proximity test for Cut and Fill example options REVISE TO GRADE ONLY.

- The regulatory flood plain delineated by the RVCA must be used in the analysis.
- Only cut and fill volumes proposed for the flood plain of the same watercourse or waterbody will be applicable for balanced cut and fill calculations.

- The full extent of cut areas must be hydraulically connected to the adjacent flood plain via overland flow (i.e. must completely drain overland to watercourse, waterbody or wetland).
- The full extent of fill areas cannot sever the overland flow path or disrupt the hydraulic connection for any other portion of the flood plain that is not to be filled.
- Cut and fill areas must tie back into original ground elevations at their perimeter at a slope no greater than 3 horizontal to 1 vertical (3H:1V).
- If applicable, the submission needs to include an updated hydraulic analysis that demonstrates the proposed cut and fill has no negative impacts to flooding (water surface elevations), erosion (channel and overbank velocities), and conveyance of spills (if applicable) at the site including both upstream and downstream sections.
- All other regulated and identified hazards must be considered and avoided.

2.2. Detailed Analysis Components

RVCA technical review staff will require the detailed cut and fill analysis to contain the following components:

- An existing conditions plan with cross-section(s) locations and their associated regulated flood levels.
- A project plan view drawing that clearly delineates all proposed cut and fill area(s) and overlays the regulatory flood plain and cross-section(s) for added spatial context.
- A profile view of the cross-section(s) showing the RFL, HWL, existing topography, and proposed modifications associated with and cut and fill area(s).
- A note on how all exposed soils within the cut and fill areas will be stabilized.
- Fill plans, with the following details:
    - Limits of all fill areas extending to the toe of slope;
    - Delineation of top and bottom of any fill slopes including slope label (ie. 3H:1V);
    - Existing and proposed spot elevations and grades over fill area;
    - Minimum of one cross-section per fill area depicting original ground, proposed ground, regulatory flood elevation, and high water level;
    - Original and modified flood plain limits (to ensure hydraulic connectivity);
    - A note on the type and source of all fill material;

    - A note on how and when all new fill will be stabilized;
    - Sediment control measures; and,
    - Depending on the purpose of application, we may require:
        - Footprint and finished floor elevation of all proposed structures;
        - Proposed spot elevations and grades around structure, limits of fill pads, and driveway surfaces;
        - Delineation of septic systems including tanks, filter beds and mantles as well as associated grading details.
- Cut plans, with the following details:
    - Limits of cut area extending from top of cut to tie in point with original ground;
    - Delineation of top and bottom of cut slopes including slope label (ie. 3H:1V);
    - Existing and proposed spot elevations and grades over cut area;
    - Minimum of one cross-section per cut area depicting original ground, proposed ground, regulatory flood elevation, and high water level;
    - Original and modified flood plain limits;
    - A note or description of where cut material will be placed or disposed of; and,
    - Sediment control measures.
- The cut/fill calculation should be summarized and presented in tabular format:

EXAMPLE ONLY Summary for Design Cut/Fill Volumes Below the Regulatory Flood Level Cut Regulatory Flood Level = 129.45 m Fill Regulatory Flood Level = 129.40 m					
Interval Cut Elevation (m)	Cut Volume (m^3)	Interval Fill Elevation (m)	Fill Volume (m^3)	NET Fill/Cut (m^3)	NET ± 5% (y/n)
129.15-129.45	125	129.10-129.40	131.25	1.05	y
128.85-129.15	75	128.80-129.10	71.25	0.95	y
128.55-128.85	50	128.50-128.80	47.5	0.95	y
Continue Rows as Required…					
total	250		250	1	y

3. Professional Qualifications and Technical Standards

3.1. Professional Qualifications

Technical analysis necessitates the expertise of specialists in engineering or related fields. These assessments should be carried out by individuals or teams equipped with the relevant education, training, and experience. The following details the minimum requirements:

- Bachelor's degree (or higher) in relevant engineering or geoscience field
  - Civil, hydraulic, or water resources engineering will be accepted for both detailed cut/fill and hydraulic analysis.
  - Geotechnical engineering or a geoscience degree will be accepted for soil, geomorphological, geotechnical, and/or slope stability analysis.
- Professional registration in Ontario
  - P.Eng. is required for detailed cut/fill analysis and hydraulic analysis.
  - Either P.Eng. or P.Geo. is required for soil, geomorphological, geotechnical, and/or slope stability analysis.
- Minimum 5 years of progressive experience in the relevant engineering or professional field.

3.2. Third Party Review

The RVCA may engage a third-party expert(s) to review the work for consistency with the evolving state of practice and standard of care.

3.3. Standards and Technical Guidelines

Fill placement, excavation, and grade modifications must adhere to the following standards and technical guidelines:

a. Ontario Regulation 406/19: Sets out the regulatory framework for the application of Ministry of Environment guidelines relating to soil management and quality standards.
b. Ontario Regulation 686/21: Specifies the mandatory programs and services to be provided by a Conservation Authority within their jurisdictional boundary.
c. Ontario Regulation 41/24: Specifies prohibited activities, exemptions and permits for areas regulated by Conservation Authorities. This includes development activity within regulatory flood plains.
d. RVCA Regulatory Flood Plain: Defined limits of the Flooding Hazard, identified through engineered studies, where development activities such as the placement of fill are prohibited.

e. Flooding Hazard Standards: Compliance with Ontario Ministry of Natural Resources' Technical Guide – River and Stream Systems: Flooding Hazard Limit (2002).
f. Erosion Hazard Standards: Compliance with Ontario Ministry of Natural Resources' Technical Guide – River and Stream Systems: Erosion Hazard Limit (2002).
g. Fill Standards: Compliance with Ontario Ministry of Environment, Conservation and Parks' guidelines on Rules for Soil Management and Excess Soil Quality Standards (2020).

4. Best Management Practices

4.1. Materials Management Plan

The RVCA will encourage the use of a materials management plan. as a best management practice for development activities that include fill placement, excavation, and/or grade modifications. Material management plans provide monetary benefits to project proponents through reduce hauling, labour, and fuel costs through:

a. Decreased machinery usage, and their associated environmental costs and hazards, through thoughtful positioning and stockpiling of materials.
b. Decreased land disturbance by limiting material staging areas to areas previously developed or to be developed throughout the proposed project.
c. Decreased land disturbance by limiting material staging areas to the proposed project footprint.
d. Reuse of topsoil onsite (non-hazardous only).
    - Topsoil Preservation. Topsoil depth is maintained or increased in planting areas, appropriate for the proposed plant community.
    - Topsoil Preservation. Design minimizes or eliminates the requirement for fertilizer nutrients.
    - Reuse of Topsoil. Allow the reuse of topsoil removed for grading and reuse of this material on site as long as it is determined non-hazardous material. This can include the use of soil to create berms elsewhere within the corridor, thereby eliminating the need for trucking or disposal.

4.2. Technologies and Tools

Modern technologies and tools such as 3D modeling, drone surveys and GPS or GNSS systems, can generate accurate cut and fill maps quickly and efficiently. Using the most current industry standard mapping technologies and tools provides benefits in terms of accuracy and cost effectiveness when reviewing development application. The RVCA will consider the use of tested and trusted technologies and tools that can produce highly accurate information

for the design, calculation and detailed analysis of cut and fill development activities. The RVCA may also consider the use evolving and emerging technologies that assist in improving accuracy to ensure protection that the approval of any application.

4.3. Risk Management

Balance cut and fill projects often take place in areas with varying site conditions, terrains, slopes and soil qualities which may result in added complexities to the construction process. A risk management plan should be prepared to address monitoring and management of a project to ensure worksite safety and stability, and shall include measures to address for changing conditions such as weather, erosion, sediment migration throughout project's duration.

5. Balanced Cut and Fill Application Checklist

Category	Requirements
Permissible Fill Requirements	☐Total fill volume is less than 1000 m^3. ☐Fill areas are outside areas impermissible by RVCA Policies and Procedures (i.e. watercourses, wetlands). ☐Fill areas will not sever portions of the adjacent flood plain. ☐Fill areas are above the HWL. ☐Fill areas are tied back to original ground with slopes ≤ 3H:1V. ☐Fill volume calculations reference nearest RFL. ☐Fill volume calculation includes only material below the RFL and above the HWL.
Compensatory Cut Requirements	☐Total cut volume must be equal or greater than the total fill volume. ☐Cut areas are outside areas impermissible by RVCA Policies and Procedures (i.e. watercourses, wetlands). ☐Cut areas are hydraulically connected to adjacent flood plain. ☐Cut areas are above the HWL. ☐Cut areas are tied back to original ground with slopes ≤ 3H:1V. ☐Cut volume calculations reference nearest RFL. ☐Cut volume calculation includes only material below the RFL and above the HWL.
Detailed Analysis Requirements	☐Detailed Analysis is based on the RVCA's regulatory flood line. ☐Cut and fill volumes are incrementally balanced in 0.3 m elevation increments (± 5%). ☐Cut and fill areas are in close proximity (< 5 cm difference in nearest cross section RFL). ☐Analysis stamped by a Professional Engineer.
Drawings and Plans	☐Reference geodetic datum, with topographic source clearly stated. ☐Regulatory flood plain and RVCA Cross Sections included on all drawings and plans. ☐Plan view with clear cut/fill delineation. ☐Detailed grading plan with project cross-section locations. ☐Profile view of project cross-sections with flood elevation noted.
	Fill Plan Details: ☐Fill limits, slopes, and elevations. ☐Cross-section showing original, proposed ground.

Category	Requirements
	☐Summary table for each fill area, with volumes every 0.3 m up to closest RFL. ☐Fill material note: type and source. ☐Soil stabilization note for exposed areas. ☐Sediment control measures. ☐If required: structures' footprints and floor elevations. ☐If required: spot elevations and grades around structures, pads, and driveway surfaces. ☐If required: delineation of septic systems (tanks, beds, mantles, etc) and associated grading details.
	Cut Plan Details: ☐Cut limits, slopes, and elevations. ☐Cross-section showing original, proposed ground. ☐Summary table for each cut area, with volumes every 0.3 m up to closest RFL. ☐Cut material note: placement or disposal location. ☐Soil stabilization note for exposed areas. ☐Sediment control measures.
Documentation and Submission Requirements	☐CAD format drawings submitted as PDF. ☐Potential GIS dataset submission. ☐If required: soil, hydraulic, geomorphological, geotechnical, and/or slope stability report(s).
As-Built Requirements	☐As-built drawing certified by Professional Engineer or OLS. ☐Spot elevations overlaid on plans, as-built volume summaries.

REVIEW GUIDELINE 3

Rideau Valley Conservation Authority

Wetland and Organic Soils (Natural Assets)

Last Updated November 1, 2024

Version 1.0.0

Wetland and Organic Soils (Natural Assets) Technical Review Guideline

This document is intended to guide stakeholders on technical submissions to support *development activity* permit applications for projects primarily in other areas adjacent to wetlands and/or organic soils. As part of the review of permit applications in accordance with the RVCA Development Activity Policies and Procedures, these guidelines may also serve as support for reviews under various acts, that may include the RVCA as a commenting agency.

Version Number	Version Date	Revision Summary	Authors
V.#.#	YYYY/MM/DD	Section #, brief description	Staff
V.1.0	2024/11/01	Technical Guideline for Development Activity	Claire Milloy Eric Lalande

1. Guideline Use

The RVCA seeks to provide hazard management education, and appropriate site-specific data collection to be able to adequately assess and review the following:

1. Natural assets within the Rideau River watershed.
2. Hazard prevention and mitigation services of natural watershed features.
3. The technical engagement process recommended by the RVCA.
4. The pre-application assessment checklist**,** which forms part of the core technical engagement process, and which includes a detailed background review.

2. Natural Assets in the Rideau River Watershed

Natural assets are areas that provide a service and mitigating hazards within the Rideau River Watershed. Natural assets along with hazards are managed in partnership by the conservation authority, local and provincial decision makers, and local landowners and their representatives. For all parts of this partnership, hazard management requires important technical direction from qualified professionals such as geoscientists, engineers, land management experts, land surveyors, and geographic information system analysts, which can provide in-depth understanding of natural conditions that created natural hazards in the watershed and how to develop appropriately while respecting cumulative impacts.

2.1. The Rideau River Watershed Is Wet

The hazardous lands specific to the Rideau Valley watershed occur due to several natural and unchangeable conditions. The watershed is generally broad, rocky, and low-lying. It is located near the confluence of two great provincial-scale drainage systems, the Ottawa and St. Lawrence Rivers, which ultimately control how surface waters and groundwater drain over and through the land.

The watershed is situated within a humid temperate (continental) climate which provides a year-to-year water surplus, with strong seasonality. This means that the topographic depressions in our highlands are permanent lakes, our flat and rocky interior hosts many wetlands, and our lower valley clay and sand plains host many streams and used to host many more wetlands than they do now. Further, our streams and rivers form an intricate network that connects lakes to wetlands to the Rideau River and ultimately, the Ottawa River.

The climate also means that underlying the entire valley our rocky aquifers are brimming with groundwater. The water table is typically never far below the ground surface, especially around our surface water bodies.

Our aquifers are replenished annually, on a seasonal basis, by our melting snow and rain. In turn the groundwater moves through the aquifers, slowly feeding the lakes, streams, and wetlands that are wet all year every year.

The Rideau River Watershed is therefore naturally very wet. Because of this, the streams and rivers that run across the flat interior naturally produce broad floodplains and the small valleys within the lower watershed are ever expanding, due to erosional processes.

The lakes, streams, wetlands, soils, and vegetated areas across the entire watershed perform invaluable roles in removing, storing, and slowing down would-be flood and erosion water before it gets to the floodplains and evolving valleys. Without these processes, our floodplains would widen, the risk of seasonal drought will increase, and erosion and landslides will worsen.

In addition to the broad floodplains of the watershed, eroding valleys, and select meander belts, the Rideau River watershed also hosts unstable organic soils in and around wetlands, small areas of potentially unstable karst bedrock, and a large area of sensitive marine clay.

2.2. Marine Clay Valleys are of special concern

Across the lower portion of the watershed, specifically in parts of the City of Ottawa, lies variable depths of sensitive marine clay, which is a naturally unstable type of ground that gives rise to very unstable slopes. There are several problematic marine clay valleys in the lower end of watershed and several stretches of the Ottawa River with these unstable banks.

These marine clay valleys and riverbanks are prone to regular failures and with the potential for catastrophic landslides, like those which occurred in Horton Township in 2016 and in Saint-Jude in 2010. Note that any slope in marine clay may pose risk but the risk of a large landslide is relatively infrequent. The RVCA provides a Terrain Atlas in our online GeoPortal, which shows the locations of known small and large slope failures, of which there are many.

Further, these marine clay valleys exhibit permanently erosive conditions, much of which is natural since these valleys are relatively young. These valleys will therefore naturally continue to expand (widen, deepen and lengthen) through landslide activity along the tops of their valleys.

For development activities near marine clay slopes, it is important to understand that erosion has likely grown worse since settlement, which can increase some of the triggers for landslides. The worsening erosion is due to the widespread loss of headwater stream, wetland, and soil function, due to the historic and continuing loss of vegetated corridors around these valleys, and due to significant increases in stormwater runoff from successive and unmitigated development.

2.3. Maintaining the Hydrological Cycle is Critical

Given the climatic, physiographic, and geological setting of the Rideau River watershed, it is important to protect and restore the hydrological functions that occur across our landscape, all of which control the location, extent and severity of our hazardous lands.

Old development designs are now known to create or worsen flooding and erosion conditions downstream of those areas. For instance, the channelizing, shortening, and removal of streams, the drainage of wetlands, the removal of forest, and the removal of even minor amounts of water from a property in the quickest way possible using the least amount of space, all contribute to the aggravation of existing downgradient hazardous lands and potentially the creation of new ones.

Old development designs that turn the ground, which naturally would collect, remove, and store an abundance of water, into pavement and roofs is now known to considerably worsen the hazardous lands in a watershed.

Older development design essentially produces significant and negative impacts to local hydrological cycles and puts society at risk from threats to personal safety, the loss of property, decreased property value, increasing insurance and tax rates, etc.

2.4. Natural Assets are critical parts of the Hydrological Cycle

Critical to maintaining the sustainable hydrological function of a watershed is the protection and where needed, rehabilitation, of key natural features and their surrounding areas. These hazard management areas include but are not limited

to lake shorelines, wetlands, and watercourses including headwater drainage features.

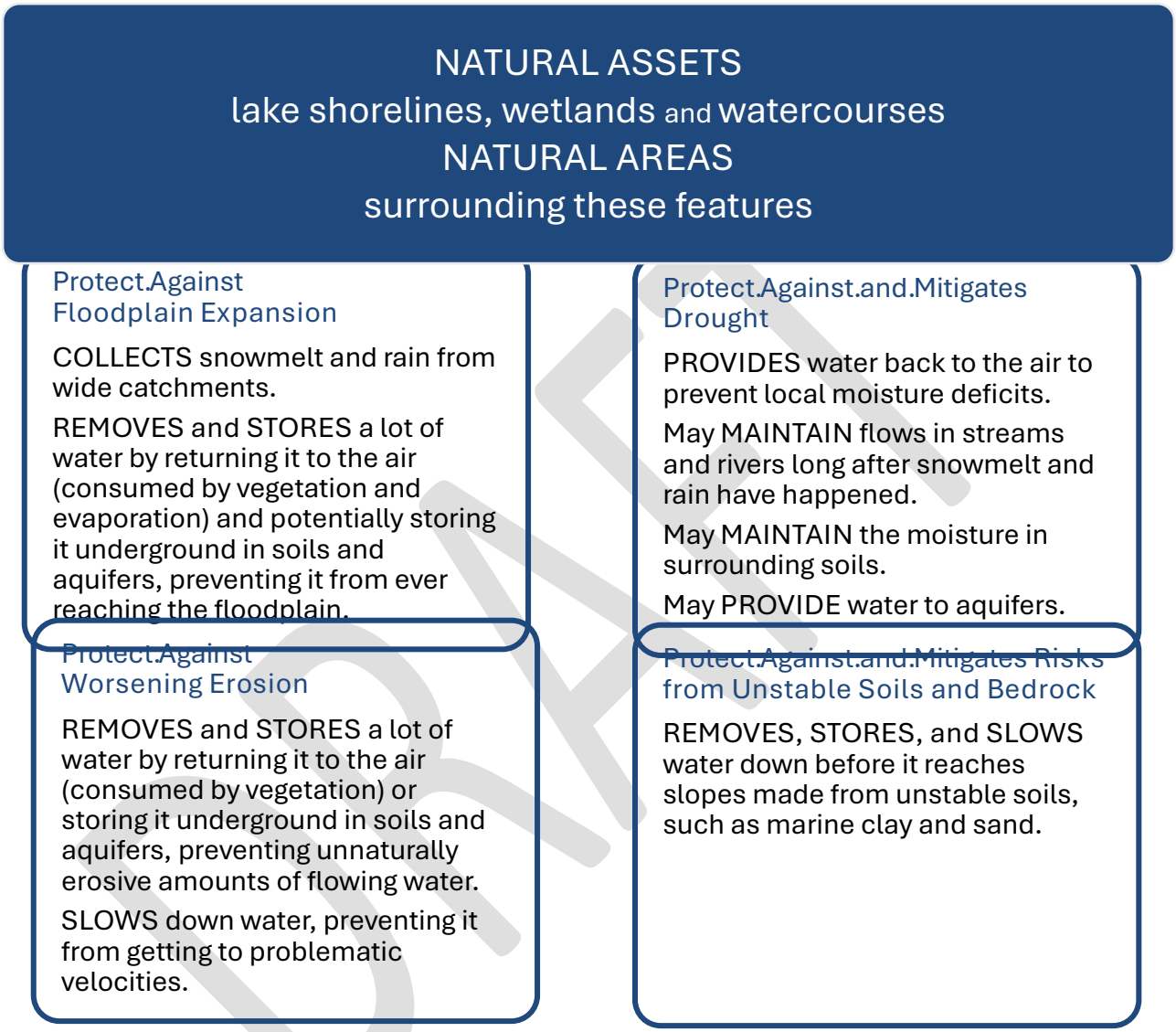
In all cases, the important hydrological functions of the areas surrounding these natural features must also be protected or rehabilitated. The surrounding areas need to be broad, must have loose soils, and be vegetated with various types of native trees, shrubs, and small plants. The important hydrological functions of regulated hazard management areas are summarized in the following diagram.

Beyond building outside of hazardous lands, there are many solutions to living safely and sustainably with hazardous lands. Solutions range from common-sense low-cost actions like building above the high water-table, switching to better vegetated lawns, introducing rain gardens, planting trees, to planning authorities requiring sustainable community designs as to better preserve local hydrological cycles.

For developed communities in landslide risk areas, simple solutions that prevent some types of landslide triggers include never doing the following activities along the tops of slopes: draining water, placing fill including snow and compost, clear-cutting, excavating, etc. Nor should excavation of the bottom (toe) of slopes occur without expert geotechnical engineering supervision.

In all cases, an important solution is also to protect access to and along the boundaries of all hazardous lands for inspection, monitoring, rehabilitation, and emergency access purposes.

2.5. Hazard Control and Mitigation Services of Wetlands, Watercourses, and Lakes



3. Technical Review Process

The overarching process for applying and potentially obtaining a permit to undertake a development activity within a regulated area is detailed in Section 2 of *RVCA Development Activity Policies and Procedures*.

The overarching process by which a proponent would receive professional advice for proposals under the *Conservation Authorities Act, Planning Act,*

Environmental Assessment Act, Aggregate Resources Act, or *Drainage Act* can require

The detailed process by which technical staff should be engaged within the RVCA's overarching permission and advice processes can often be an iterative process where staff can assist proponents through pre-consultation, application submission towards ultimate approval.

3.1. Background Review

As part of pre-consultation determination of any site-specific information or RVCA staff will strive to assist in identifying

1. Hazardous land, including:
    a. wetlands and organic soil areas
    b. watercourse alignments including perennially flowing ditches, drains, and old meanders
    c. flood risk areas within lakes and valleys, whether or not a regulation limit has been finalized.
    d. slope and landslide risk areas around lakes and along valleys, whether or not a regulation limit has been finalized.
    e. karst limestone areas
    f. beaches on large lakes
2. Natural assets, which may be present upgradient to flood / erosion / drought risk areas including:
    a. water control structures,
    b. wetlands catchments,
    c. watercourse catchments,
    d. preferential evapotranspiration areas
    e. preferential groundwater recharge areas, and
    f. groundwater discharge areas.

3. Maps of hydrologically degraded hazardous land management areas upgradient to flood / erosion / drought risk areas, including:
    a. Areas that have exhibited related wetland function loss
    b. Areas that have exhibited related watercourse function loss
    c. Areas that exhibit high imperviousness
    d. Areas with obviously insufficient or inappropriate stormwater management systems(s)

3.2. Preliminary Risk Assessment

Depending on the site-specific natural assets in proximity to a proposed development, it may warrant the identification assessment of potential risks early in the project. Specifically, working with RVCA staff applicants can identify:

1. The type(s) of hydrological functions, when considered cumulatively, to be preserved or reinstated.

2. The types of regulated development activity(s) that will occur, potentially including new / changed structures, grading, filling, and /or excavation in regulated areas.
3. The type of wetland and / or watercourse interference that is likely to occur when considered as if cumulative, potentially including:
    a. Potential increase in flooding from flow impoundment, drainage, diversion, etc.
    b. reduced removal of would-be flood water via loss of evapotranspiration (consumption of water by vegetation),
    c. reduced flood-storage capacity via filling, soil compaction, or increases in total seasonal inputs,
    d. reduced drought mitigation services via diversion, drainage, etc.

3.3. Pre-Consultation and Terms of Reference

As part of the pre-consultation process identification of studies, reports or information may be deemed to be required in association with relevant works.

1. The Proponent's technical experts, with consideration to the outcomes of the RVCA's preliminary risk assessment, as above, and any terms of references for applicable information needs (such as reports or studies), prepares documentation in support of a complete application. In most instances, the proponent's final terms of reference would broadly have two sections:
    a. A section about the hydrological functions, which cumulatively control downgradient hazardous lands, at the site.
    b. A section about on-site hazardous lands.
2. In each of the above general sections about hazardous lands, the proponent's technical experts will include consideration to the expected changes in the local climate.
3. In doing the above, the proponent's technical experts, also align technical study requirements with related requirements from all municipal and provincial requirements.
4. The proponent's technical work is undertaken by their geoscience, engineering, land survey, geographic information system (GIS), and land management experts.

3.4. Application Completeness

As part of the submission of development activity permit application, RVCA staff shall continue its assistance in reviewing the application for completeness.

1. The RVCA's technical review team reviews the application package to ensure that the technical information prescribed in the terms of reference(s), has been submitted.

3.5. Full Technical Review

Upon determination of a complete application, the RVCA's technical review team reviews the application package to ensure that suitable technical information, conclusions, and recommendations, has been submitted.

4. Wetland and Organic Soils (Natural Assets) Application Checklists

The proposed scale of development activity in relation to natural assets such as wetlands and areas of organic soil directly influence the rigor required to demonstrate the tests of the Conservation Authorities Act are maintained.

4.1. Formal Pre-Consultation Application Review Checklist

Pre-consultation is intended to identify what technical information is required for an appropriate level review proportional to the work proposed. Likewise the process may scope how detailed information needs to be to adequately address concern. Applicants who are engaging in pre-consultation are encouraged to provide some preliminary information to provide RVCA staff the best opportunity to accurately identify potential risk, and minimize delays during the formal permit application process:

Suggested Materials	Checklist
Legal Survey of Property: - showing all boundaries	
Site Plan: - Property dimensions - Setbacks and separation existing buildings, septic, etc. - Geodetic elevation (grades) in the area of development activity in “meters above sea level” Site Location Map, including: - property boundaries, easements, infrastructure corridors, etc. - zoning, M-plan number, PIN - aerial photography (historical and/or current A proposed development plan, including: - Buildings and accessory buildings e.g. existing houses, garages, sheds, gazebos, decks, etc. - Accessory areas e.g. water well, cisterns, driveways, pools, major gardens and compost areas, utilities, etc. Septic / grey water system areas e.g. tank, disposal field	
Draft Construction Drawings: - Building elevations, top-down and cross-sections views. - Proposed grading works	
Hazardous land area map(s), including: - wetlands and organic soil areas	

- watercourse alignments including perennially flowing ditches, drains, and old meanders - flood risk areas within lakes and valleys - slope and landslide risk areas around lakes and along valleys - karst limestone areas beaches on large lakes	
Existing topography map, including: - LiDAR or DRAPE contours – elevations labelled - hill shading subwatersheds and catchment boundaries and names	
Grading and Drainage Plan, including identifying: - Watercourses - Seeps and springs - Culverts & crossings (e.g. bridges) - swales - tile drains - ponds - ditches Sediment and Erosion Control Plan (and/or dewatering plan).	
Other Information required based on project type (eg.): - Winter storage plan	
Technical Submissions: - Hydrologic Impact Assessments - Water budgets	

4.2. Permit Application Review Checklist

In support of a complete application in proximity to wetlands, organic soils (natural assets) typically include the following minimum requirements, where applicable:

Minimum Requirements	Checklist
RVCA Application Form (signed and dated)	
Letter of Authorization if made on behalf of the landowner	
Legal Survey of Property: - showing all boundaries	
Site Plan: - Property dimensions - Setbacks and separation existing buildings, septic, etc. - Geodetic elevation (grades) in the area of development activity in “meters above sea level” Site Location Map, including: - property boundaries, easements, infrastructure corridors, etc. - zoning, M-plan number, PIN - aerial photography (historical and/or current	
A proposed development plan, including: - Buildings and accessory buildings e.g. existing houses, garages, sheds, gazebos, decks, etc. - Accessory areas e.g. water well, cisterns, driveways, pools, major gardens and compost areas, utilities, etc. Septic / grey water system areas e.g. tank, disposal field Construction drawings	
Sediment and Erosion Control Plan (and/or dewatering plan).	
Other Information required based on project type (eg.): - Winter storage plan	
Technical Submissions: - Hydrologic Impact Assessments - Water budget	
The RVCA adapts the *terms of reference*, for each study applicable to the site and proposal, as applicable. (i.e. eliminates inapplicable requirements)	
Existing land cover map(s) Surficial geology (soils) map(s)	
Any other studies identified through pre-consultation.	

REVIEW GUIDELINE 4

Rideau Valley Conservation Authority

Landslide Hazard and Risk Assessment

Last Updated November 1, 2024

Version 1.0.0

Landslide Hazard and Risk Assessment (Interim)

The Conservation Authority will accept either a hazard risk assessment according to the Fraser Valley Regional District approach or a landslide risk assessment meeting the risk thresholds of the Town of Canmore. The report must include the following:

1. Objectives of the Risk Assessment

It must be demonstrated that any landslide on the slope, including a large "catastrophic landslide", has an annual probability less than 1: 10,000. If the landslide hazard cannot be demonstrated to meet this criteria, it must be demonstrated that the individual risk is <1 x 10-5 per year and group risk falls within the "Acceptable" zone on the group risk chart (See Figure B-1).

If none of these criteria can be satisfied without mitigation measures, then the consultant must demonstrate what action will be required to reduce the risk below 10-5 per year and to "as low as reasonably practicable" (ALARP). If mitigation is required, further discussion with the RVCA will be required to determine what will be acceptable.

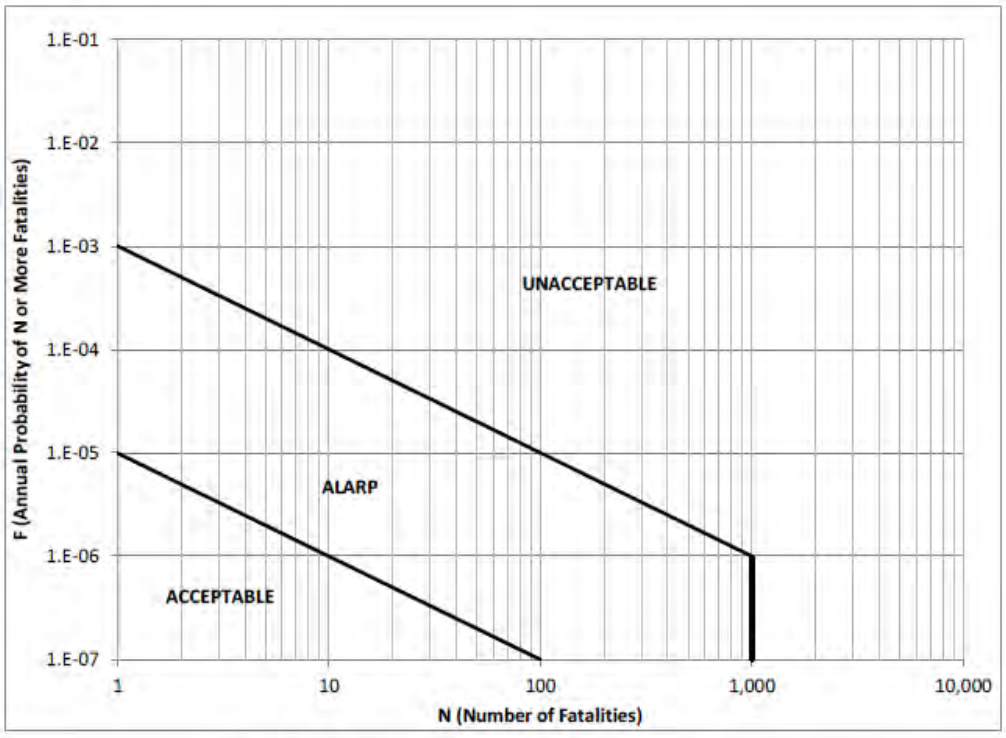


Figure B-1. Proposed interim group risk criteria.

2. Task and Deliverables

Landslide Risk is estimated as a combination of hazard and consequence as follows:

Risk = [P(H) x P(S|H)] x [P(T|S) x E x V] or Risk = Hazard x Consequence

The defined terms are as follows:

Table B-1. Key questions for carrying out landslide risk analysis.

No.	Question	Risk Parameter
1.	What is the probability or likelihood of a landslide occurring in a given time?	Landslide Occurrence Probability, or $P(H)$
2.	What is the probability that the landslide reaches something which could suffer some loss (i.e., an element at risk), such as a person, building, or other infrastructure?	Spatial Probability of Impact, or $P(S\|H)$
3.	What is the probability or likelihood that the element at risk would be in the impact zone at the time of impact?	Temporal Probability of Impact, or $P(T\|S)$
4.	What is the value of element(s) at risk?	Elements at Risk, E
5.	What is the probability or likelihood that a certain level of loss occurs, given that an element at risk is impacted?	Vulnerability, or V

The following general methods are available for estimating P(H) and P(S|H), and hazard:

1. Review of published literature describing similar landslide process in similar physiographic settings.
2. Geomorphic interpretation from desktop analysis of remoting sensing data like stereo air photos and lidar
3. Review of available inventories of mapped landslides, or development of site- or region-specific landslide inventories
4. Change detection from topographic models (or orthophotos) of various ages; this technique is useful for estimating frequency for features that move frequently
5. Ground reconnaissance to check desktop interpretations of geological models and to ground truth interpreted landslide landforms or terrain susceptible to slope failure, and to look for signs of ground movement
6. Subsurface investigation (i.e., drilling, test trenching) where necessary to determine subsurface materials and groundwater conditions
7. Installation and monitoring of instrumentation to record ground movements or groundwater conditions over time
8. Evaluation of terrain geometry in consideration of the expected landslide mechanism(s) to determine potential retrogression above the crest of the slope or runout beyond its toe
9. Slope stability analysis for simple landslide mechanisms for which rigid body limit equilibrium methods are applicable

10. Advanced analyses where considered justified by the qualified professional, considering, for example, progressive failure and seismic loading.

The hazard assessment must consider all possible landslide types and any potential triggers. In this case, large landslide scars present nearby on similar landforms suggest the possibility of large landslides under earthquake loading.

It will be up to the qualified professional to determine the optimum approach based on their appraisal of the specific project and available information.

If a landslide risk assessment is chosen, both individual risk and group risk must be estimated. Individual risk must consider the individual most at risk; the professional should select and defend appropriate values of P(T|S) and V, with reference to pertinent literature or clear elaboration of occupancy and vulnerability assumptions. Group risk must consider a range of credible group exposure scenarios (i.e. varying E from 1 to the highest credible number of occupants present at the time of a landslide). Exposure scenarios and vulnerability assumptions must be described and defended.

3. Qualified Professional

The lead investigator must demonstrate the following experience and qualifications through their CV, reference for projects and clients references:

1. Bachelor's degree (or higher) in geotechnical or geological engineering, engineering geology, physical geography or related discipline; a master's degree or doctorate with a focus on landslide hazards and risk would be preferred.
2. Registration in Ontario as a P.Eng. or P.Geo.
3. Minimum ten years of progressive experience studying a range of landslide hazards in a variety of Canadian or global settings, involving twenty or more distinct projects. Twenty years of experience or more would be preferred.
4. Minimum five years (ten or more years preferred) conducting landslide hazard (or risk, if applicable) assessments, and has completed a minimum of five assessments with similar scope to that conceived by RVCA.
5. Minimum five years (ten or more years preferred) working on projects involving sensitive glaciomarine clay .
6. Possesses a clear understanding of pertinent landslide processes and hazard and risk principles and assessment methods as demonstrated in the proposed scope of work.

4. Third Party Review

The RVCA will engage a third-party landslide expert(s) to review the work for consistency with the evolving state of practice and standard of care.

11.0 2025 Fee Schedules
Report #: 04-241024

To: RVCA Board of Directors
From: Sommer Casgrain-Robertson
General Manager
Date: October 17, 2024

	For Information
	For Direction
X	For Adoption
X	Attachment – 3 pages

Recommendation:

THAT the Board of Directors of the Rideau Valley Conservation Authority approve the following fee schedules to take effect as indicated on each schedule:

- **Schedule E: Onsite Sewage Disposal Systems**
- **Schedule G: Conservation Areas**
- **Schedule H: Education Programs**

Purpose
To approve 2025 fee schedules for RVCA's septic, conservation areas and outdoor education programs.

Background
Section 21.2 of the *Act* sets out that every conservation authority shall prepare and adopt both a written fee policy and fee schedules with respect to the fees that it charges for the programs and services it provides.

Each year, staff review RVCA's Fee Policy and Fee Schedules and present amendments to the Board for consideration when required. No changes to the Fee Policy are being proposed this year, but amendments to three fee schedules are attached.

Analysis

Septic Fees
RVCA's septic approval program is a category 2 municipal service which means it must be full cost recovery. Staff reviewed the schedule and are proposing an increase to all fees of approximately 4% to reflect cost of living increases and ensure the program continues to cover expenses.

Conservation Areas

RVCA's fee schedule for conservation areas was last updated in 2023. Staff have reviewed all fees and are proposing increases ranging from 2% to 10% when annualized over the three years. This is necessary to recover greater costs where needed while remaining within market rates. The average annualized fee increase is 4%.

Education Programs

Outdoor education programs are a category 3 program and were not included in RVCA's cost apportioning agreements with municipalities which means they must be full cost recovery. Staff reviewed all fees and are proposing increases ranging from 2% to 5% when annualized over three years. This is necessary to recover costs and meet revenue targets set in RVCA's operational budget. The average fee increase is 3%.

One exception is the fee for virtual outdoor education classes. This service was started during the pandemic and was RVCA's only education program offering during lockdown. Now that RVCA's full range of outdoor education programs are available, requests for virtual classes require increased staffing so fees need to be doubled to offset the full cost (previously existing staff could provide them as other programs were not available).

Input from Other Sources

RVCA periodically reviews fees set by neighbouring conservation authorities and similar service providers.

Financial Considerations

See analysis section

Legal Considerations

Section 21.2 of the *Conservation Authorities Act* enables Conservation Authorities to charge fees for programs and services. The attached Fee Schedules are in accordance with the requirements in the Act and Minister's List.

Link to Strategic Plan

Revised fee schedules support Priority Action #2 under Strategic Direction #4:

- Review delivery costs, revenue generation and value to the watershed for all programs and implement changes that improve efficiency, effectiveness and client service.

Attachments:

- Schedule E: Onsite Sewage Disposal Systems
- Schedule G: Conservation Areas
- Schedule H: Education Programs

Rideau Valley Conservation Authority

Schedule E: Onsite Sewage Disposal Systems

Sewage System New Construction/Replacement	Fee
Class 4 (Leaching Bed System) & Class 5 (Holding Tank)	
Residential	**$970**
Class 4 Required Maintenance Contract Registration	**$155**
Residential QUINN FARM (includes labour for sampling)	**$1,260**
Commercial or Other Occupancies	**$1,390**
Class 2 & 3 Systems	**$470**
Class 4 Septic Tank Only	**$450**
Inspections (subgrade, partial install, squirt height)	**$225**
Revisions To Existing Permit	
Major Example: different type of system, different location > 10 metres	**50% of Fee**
Minor Example: Change Design Flow, Type of Treatment Unit	**$225**
Administrative Example: Change of Documentation Only	**$140**
Alteration To Existing Sewage System	
Major Example: Addition of Treatment Unit, Mantle	**$450**
Minor Example: Level Header, Filter & Riser	**$225**
Renovation/Change of Use Permits	
Renovation/Change of Use (OBC Part 10 & 11)	**$340**
Renovation/Change of Use (OBC Part 10 & 11) with Part 8 Application	**$175**
Miscellaneous	
File Search for septic records	**$175**
Renewals & Cancellations *	
Renewal & Review Fee (maximum 1 year extension)	**$225**
Cancellation within 12 months of issuance (refund)	**50% of Fee**
Permit to Demolish	
Permit to demolish/decommission a septic system	**$175**
Planning – Septic (Outside City of Ottawa)	
Planning Comment (per lot for Subdivision Plan Review - Maximum fee of $5000)	**$240**
Consent Application	**$350**
Additional Consent Applications (same retained parcel)	**$160**
Minor Variances and Zoning By-Law Amendments	**$350**
* NOTE 1: If construction begins before a permit is issued a 50 percent (%) Surcharge applies to all permits.	
* NOTE 2: A permit is valid for 12 months from the original date of issuance noted in permit. *If lapsed, it may be renewed only once for a period of 12 months from the original date of expiry.*	

Rideau Valley Conservation Authority

Schedule G: Conservation Areas

Program or Service	Capacity (people)	Fee
Parking Pass		
Annual Pass		$60
Day Pass		$10
Rental Facilities – Baxter Conservation Area		
Interpretive Centre		
Day Meeting (Mon to Fri, 8 am to 4 pm)	60	$155
Evening Meeting (Mon to Fri, After 4 pm)	60	$155
Extended Meeting (Mon to Fri, 8 am to 11 pm)	60	$210
Weekend Meeting (Sat, Sun and Statutory holidays, 8 am to 4 pm)	60	$215
Social Rentals (personal events, celebratory gatherings)	60	$300
Community Group Overnight (1 night)	25	$325
Community Group Overnight (weekend: Fri to Sun)	25	$500
River Cabin (day rental)	20	$80
River Cabin (overnight rental)	10	$135
Group Camping Area	100	$100 (1-15 people) $195 (16-30 people) $8 (each additional person)
Picnic Shelter	30	$100
Rental Facilities – Foley Mountain Conservation Area		
Interpretive Centre		
Day Meeting (Mon to Fri, 8 am to 4 pm)	60	$110
Evening Meeting (Mon to Fri, After 4 pm)	60	$110
Extended Meeting (Mon to Fri, 8 am to 11 pm)	60	$195
Weekend Meeting (Sat, Sun and Statutory holidays, 8 am to 4 pm)	60	$195
Social Rentals (personal events, celebratory gatherings)	60	$245
Community Group Overnight (1 night)	25	$270
Community Group Overnight (1 ½ days)	25	$355
Community Group Overnight (weekend: Fri to Sun)	25	$475
Silversides (day rental)	60	$85
Silversides (overnight rental)	25	$120
Silversides (overnight rental package)	25	$240 / night $420 / weekend
Group Camping Area	100	$100 (1-15 people) $195 (16-30 people) $8 (each additional person)
Picnic Shelter	30	$80
Rental Facilities – Other		
Group Camping Area (Mill Pond)	100	$100 (1-15 people) $195 (16-30 people) $8 (each additional person)
Picnic Shelter (Rideau Ferry, Mill Pond)	30	$80

Please Note: All visitors (including those renting facilities) are also responsible for any applicable parking fees at RVCA's conservation areas.

Schedule H: Education Programs

The Following Fees Take Effect January 1, 2025

Outdoor Education Programs	Fee
Virtual Outdoor Education Class	$200
Summer Camp (Baxter Conservation Area)	$275 / week
Before Care	$10 / day
After Care	$10 / day
Summer Camp (Foley Mountain Conservation Area)	$245 / week (one child) $206 / week (multiple siblings)

The Following Fees Take Effect September 1, 2025:

Outdoor Education Programs	Fee
Forest School	$60 / day
Forest School (half day Kinder program)	$35 / day
Outdoor Education: Half Day Program	$220 / class
Outdoor Education: Full Day Program	$300 / class

12.0 **2025 Preliminary Draft Budget**
Report #: 05-241024

To: RVCA Board of Directors
From: Kathy Dallaire
Manager of Finance
Date: October 17, 2024

	For Information
X	For Direction
	For Adoption
X	Attachments – 7 pages

Recommendation:

THAT the Board of Directors of the Rideau Valley Conservation Authority receives the attached 2025 Preliminary Draft Budget and Levy Apportionment sheet for review and comment.

Purpose
To present the 2025 Preliminary Draft Budget to the Board for review and comment.

Background
RVCA's annual budget process typically takes the following course:

1. September – Staff provide a summary of budget factors and seek initial budget direction from the Board.
2. October – Staff present a preliminary draft budget and work plan for review and comment.
3. November – Staff present a draft budget based on Board input and further staff refinement. Staff request approval from the Board to circulate this draft budget to member municipalities for review and comment.
4. February – Staff present a proposed budget for Board approval, taking into consideration any comments received from municipalities.

At their September meeting, the Board received an overview of 2025 budget factors. The Board directed staff to prepare a preliminary draft budget for 2025 incorporating the following factors.

- Municipal levy increase: 2.9% plus assessment growth of 1.5%
- Cost-of-living increase for salaries: 2.7% (July to July CPI).

Budget Direction

A levy increase of 2.9% plus assessment growth keeps within City of Ottawa budget direction as City Council instructed staff to stay within a 2.9% property tax increase for their 2025 budget. Assessment is the value of a property for taxation purposes (calculated by MPAC) while assessment growth is how much new assessment there is in an area from the previous year (e.g., new construction). Assessment growth automatically adds to a municipality's tax revenue from one year to the next and the Council can then decide whether to increase the tax rate on top of that. For 2025, with assessment growth at 1.5% our levy increase target is no more than 4.4% as this would be equivalent to a property tax increase of 2.9%.

Analysis

The attached 2025 Preliminary Draft Budget includes operating expenses of $12,445,602 and capital expenditures of $845,204 totaling $13,290,806 summarized below.

2025 Draft Budget Overview	2025 Budget	2024 Budget
Operating Expenses		
Staffing	$ 5,910,172	$ 5,517,924
Payroll taxes and benefits	$ 1,654,848	$ 1,545,019
Total Staffing Expenses	**$ 7,565,020**	**$ 7,062,943**
Non Labour Operating Expenses		
Non-Labour Operating Expenses	$ 4,207,964	$ 3,599,996
Rideau River Ice Management	$ 672,618	$ 900,717
Total Non Labour Operating Expenses	**$ 4,880,582**	**$ 4,500,713**
Total Operating Expenses	**$ 12,445,602**	**$ 11,563,656**
Capital Expenditures		
Water Control Infrastructure TCA's	$ -	$ -
Capital Purchases	$ 533,000	$ 674,188
Transfers to Reserve	$ 109,500	$ 117,293
Office Building Debenture Repayment	$ 202,704	$ 202,704
Total Capital Expenditures	**$ 845,204**	**$ 994,185**
Total Operating Expenses and Capital Expenditures	**$ 13,290,806**	**$ 12,557,841**

Staffing Highlights

The 2025 preliminary draft budget supports 76.75 full-time equivalent staff, representing an increase of 1.70 full-time equivalent staff over the 2024 budget (increase in FTEs does not impact the municipal levy). Staff time has also been reallocated amongst programs to support workloads and workplan priorities.

RVCA uses the Ontario July to July Consumer Price Index as a basis for the cost-of-living adjustment. The CPI Index was 2.7% in July 2024 which has been reflected in the

2025 Preliminary Draft budget. The 2025 Preliminary Draft budget also accommodates grid movement of 2% for any staff who are not at their full job rate yet (grid movement is contingent on a positive performance appraisal).

Overall, payroll taxes (WSIB, EI, CPP, EHT) are consistent with 2024 rates and contribution rates for Benefits are expected to remain consistent with 2024 rates.

Operation Budget - Sources of Revenue

The 2024 preliminary draft operating budget of $12,445,602 will be funded through municipal levies, special levies, provincial funding, donations from the Rideau Valley Conservation Foundation and program revenues.

The 2025 preliminary draft departmental budgets are largely consistent with 2024. Each department's budget reflects variations among the programs that reflects the priorities of the overall work plan for the coming year. Notable variations beyond the expected increases to payroll costs are explained below.

Watershed Sciences and Engineering Services

The 2025 preliminary draft operating budget for Watershed Sciences and Engineering Services has increased by $493,244, representing a 14% rise compared to 2024. This increase is primarily attributed to the Natural Hazards program, specifically for Phases 2A and 2B of the City of Ottawa Flood Plain Mapping and Erosion Study. Of the total projected costs, $304,000 is expected to be incurred in 2025, with funding split evenly between the RVCA and the City of Ottawa. Additionally, an application for federal FHIMP funding has been submitted requesting 50% funding, but since this funding is not guaranteed it is not included in the revenue projections.

Planning Advisory and Regulatory Services

The 2025 preliminary draft operating budget for Planning Advisory and Regulatory Services has increased by $344,356, which is a 12% rise compared to 2024. This increase is mainly due to staffing changes which increased costs and the addition of 1.70 full-time equivalents (FTEs) needed to support the Part 8 Building Code and Septic Re-Inspection programs.

Stewardship Services

The 2025 preliminary draft operating budget for Stewardship Services decreased by $185,890 or 10% over 2024. This is due to the reallocation of staff time to better align with workplan priorities.

Conservation Land Management Services

The 2025 preliminary draft operating budget for Conservation Land Management Services has increased by $170,004, which is a 10% rise compared to 2024. This increase is primarily due to the reallocation of staff time to better support workplan priorities.

Preliminary Draft Capital Budget - Sources of Revenue

The 2025 preliminary draft capital budget of $845,204 is summarized below.

2024 Draft Capital Budget Expenditures	
Capital Purchases	**Amount**
Headquarters – Building Cladding and Stonework	$265,000
Principle Repayment on Building	$202,704
Vehicles	$210,000
Water Quality Monitoring Equipment	$ 33,000
Hydrometrics Monitoring Equipment	$ 25,000
Total Capital Purchases	**$735,704**
Transfers to Capital Reserves	
Building Reserve	$ 70,000
Water Control Infrastructure	$ 31,500
Topographical Data	$ 5,000
Drape	$ 3,000
Total Transfers to Capital Reserves	**$109,500**
Total Capital Expenditures	**$845,204**

The 2025 preliminary draft capital budget expenditures of $845,204 will be funded through municipal levy, special levies, and transfers from capital reserves as shown below:

Sources of Revenue	2025	% of Total	2024
Municipal Operating Levy	$ 328,002	39%	$ 306,185
Special Levies	$ 31,500	4%	$ 31,500
Transfers from Reserves	$ 485,702	57%	$ 656,500
External Funding	$ -	0%	$ -
Total Revenues	**$ 845,204**	**100%**	**$ 994,185**

Municipal Levy Summary

The Municipal Levy will increase to $7,296,033 (2.9% tax increase plus 1.5% assessment growth increase from 2024). The total municipal levy will be apportioned to member municipalities based on modified current value assessment data provided by the province. The attachments include a summary of the levy apportionment to member municipalities.

The 2025 Preliminary Draft Budget reflects the municipal levy split as follows:

- $6,968,031 for operating expenses and
- $328,002 for capital expenditures

Special Levy Summary

Based on the 2025 Preliminary Draft Budget, the City of Ottawa would receive six special levies to support programs and services that solely benefit their municipality:

Operating Expenses

- $40,000 – Operation of Water Control Structures in Ottawa
- $622,618 – Rideau River Ice Management in Ottawa
- $163,457 – Enhanced Water Quality Monitoring in Ottawa
- $65,000 – Operation of Windsor and Brewer Park Water Control Structures

Capital Expenses

- $10,000 – Capital Reserve for Water Control Structures in Ottawa
- $21,500 – Capital Reserve for Britannia Village Flood Control Project

Program and Service Categories

Changes to the *Conservation Authorities Act* also require conservation authorities to now classify their programs and services into the following four categories.

- **Category 1: Mandatory Programs and Services** – These are programs undertaken by all conservation authorities and are usually supported by municipal levy along with other sources of revenue. They include programs and services related to natural hazards, conservation land management, drinking water source protection and provincial groundwater and surface water monitoring.

- **Category 2: Municipal Programs and Services** – These are programs provided at the request of a municipality and are usually funded through fees or by individual municipalities through an agreement or special levy.

- **Category 3: Other Programs and Services** – These are other programs that a conservation authority may deliver to further the conservation, restoration, development and management of natural resources in its watershed. They are often funded through a variety of revenue sources, but any use of municipal levy now requires a written agreement with municipalities. All municipalities in the Rideau watershed have approved the use of up to 20% of the municipal levy to support category 3 programs.

- **General Costs** – These are general operating expenses or capital costs that do not relate to a specific program or service. They are generally supported by municipal levy.

Each program within the 2025 preliminary draft budget has been assigned to a category. The chart below summarizes the total municipal levy allocated to each category. Notably Category 2 programs receive no municipal levy support, while Category 3 programs receive no more than 20% of the municipal levy, in accordance with the cost-apportioning agreements approved by municipal councils in 2023.

2025 Final Operating Budget: $12,445,602

Revenue Source	Category 1 Programs	Category 2 Programs	Category 3 Programs	General Costs	Total
Fees & Charges	$ 735,027	$1,001,595	$ 699,000	$ 19,162	$ 2,454,784
Donations & Grants	$ 23,000		$ 204,511		$ 227,511
Agreements	$ 790,312				$ 790,312
Self-Generated	$ 14,500			$ 750	$ 15,250
Reserve Funds	$ 446,164				$ 446,164
Other				$ 127,470	$ 127,470
Special Levy[1]	$ 727,618	$ 525,005			$ 1,252,623
Municipal Levy[2]	$3,931,866		$1,324,481	$1,711,685 *	$ 6,968,031
Total	**$6,668,487**	**$1,526,600**	**$2,227,992**	**$1,859,067**	**$ 12,282,145**

* This includes the interest payment for the debenture on the office building

2025 Final Capital Budget: $845,204

Revenue Source	Category 1 Programs	Category 2 Programs	Category 3 Programs	General Costs	Total
Fees & Charges					
Donations & Grants					
Agreements					
Self-Generated					
Reserve Funds	$ 10,702			$ 475,000	$485,702
Other					
Special Levy[1]	$ 31,500				$ 31,500
Municipal Levy[2]	$ 47,298			$ 280,704	$328,002
Total	**$ 89,500**	**$ -**	**$ -**	**$ 755,704**	**$845,204**

[1] Special Levy has the meaning of "benefit-based appointment method" which is used to apportion the cost of programs and services that only benefit certain municipalities

[2] General Levy has the meaning of "MCVA appointment method" which is used to apportion the cost of programs and services that benefit all municipalities in the watershed

[+] This expense includes the principal repayment for the debenture on the office building

Input From Other Sources

A draft budget will be circulated to all member municipalities for review and comment following our November Board meeting, the draft budget will also be posted on RVCA's website. Staff will offer to present to municipal councils during this time. Any comments received from municipalities by mid-February will be considered by the Board before voting to approve a budget at their February meeting.

Financial Considerations

See analysis section

Legal Considerations

RVCA's 2025 Preliminary Draft Budget and municipal levies are in accordance with:

- *Conservation Authorities Act*, R.S.O. 1990, c. C.27
- O. Reg. 670/00: Conservation Authority Levies
- O. Reg. 139/96: Municipal Levies

Section 14 of the Conservation Authorities Act also stipulates that:

> Member from agricultural sector appointed
> (4) In addition to the members of an authority appointed in accordance with subsections (1) to (2.1), an additional member may be appointed to the authority by the Minister as a representative of the agricultural sector. 2020, c. 36, Sched. 6, s. 2 (5).
>
> Limitation on voting

(4.0.1) The member of an authority appointed under subsection (4) shall not vote on,

[…]

(d) a resolution relating to any budgetary matter that is presented at a meeting held under section 16. 2020, c. 36, Sched. 6, s. 2 (5).

Link to Strategic Plan
This budget supports the implementation of multiple key priorities in the Strategic Plan.

Attachments:

- 2025 Preliminary Draft Budget Statement of Operations
- 2025 Preliminary Draft Budget Statement of Capital
- 2025 Preliminary Draft Operations Budget by Department
- 2025 Preliminary Draft Capital Budget by Department
- 2025 Preliminary Draft Municipal Levy Apportionment

RIDEAU VALLEY CONSERVATION AUTHORITY
BUDGET - STATEMENT OF OPERATIONS
For the period ending December 31, 2025
Draft

	Budget 2025 Full Year	Budget 2024 Full Year
REVENUE	**12,445,602**	**11,580,419**
Watershed Sciences and Engineering Services	**3,957,856**	**3,464,612**
Program Management	176,355	68,423
Watershed Reporting	171,807	164,566
Drinking Water Source Protection	277,227	233,323
Surface Water Quality Monitoring	500,146	487,730
Hydrometric Monitoring and Forecasting	454,481	460,633
Natural Hazard Studies	790,204	346,172
Groundwater Monitoring	214,156	222,168
Aquatic and Terrestrial Habitat Monitoring	392,411	397,456
Water and Erosion Control Infrastructure	863,905	1,034,141
Engineering Projects	117,164	50,000
Planning Advisory and Regulatory Services	**3,157,208**	**2,812,852**
Program Management	179,969	146,856
Site Specific Plan Review	739,597	736,904
Non-Site Specific Plan Review	198,182	197,945
S. 28 Conservation Authorities Act	863,251	848,335
S. 28 Conservation Authorities Act - Program Dev	19,609	18,783
Part 4 Clean Water Act	35,340	47,173
Part 8 Ontario Building Code	1,001,595	714,013
Septic Re-Inspection	119,665	102,843
Stewardship Services	**1,670,811**	**1,856,701**
Program Management	92,843	175,626
Tree Planting	702,093	853,390
Rural Clean Water Program	503,077	491,147
Shoreline Naturalization	270,798	263,140
Ontario Rural Wastewater Centre	102,000	73,398
Conservation Land Management Services	**1,800,661**	**1,630,657**
Program Management	91,923	83,510
Land Acquisition	15,000	15,000
Conservation Areas	958,091	913,413
Conservation Lands	387,636	295,780
Outdoor Education	316,011	290,954
Lease and Management Agreements	32,000	32,000
Corporate Services	**1,848,067**	**1,815,597**
Management and Members	378,631	346,407
Finance and Human Resources	610,706	591,315
Communications and Outreach	290,593	312,859
Fundraising and Partnerships	108,813	105,911
GIS and Information Management	301,553	301,334
Headquarter Lease and Management	157,771	157,771
Internal Recoveries	**11,000**	**-**
Internal Recoveries	11,000	-

EXPENSES	**12,445,602**	**11,580,419**
Watershed Sciences and Engineering Services	**3,957,856**	**3,464,613**
Program Management	176,355	68,423
Watershed Reporting	171,807	164,566
Drinking Water Source Protection	277,227	233,323
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Natural Hazard Studies	790,204	346,172
Groundwater Monitoring	214,156	222,168
Aquatic and Terrestrial Habitat Monitoring	392,411	397,456
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Finance and Human Resources	610,706	591,315
Communications and Outreach	290,593	312,859
Fundraising and Partnerships	108,813	105,911
GIS and Information Management	301,553	301,334
Headquarter Lease and Management	157,771	157,771
Internal Recoveries	**11,000**	**0**
Common Cost	11,000	(0)
Vehicles and Equipment	0	0
ANNUAL SURPLUS (DEFICIT)	**(0)**	**0**

RIDEAU VALLEY CONSERVATION AUTHORITY
BUDGET - STATEMENT OF CAPITAL
For the period ending December 31, 2025
Draft

	Budget 2025 Full Year	Budget 2024 Full Year
REVENUE	**845,204**	**994,185**
Watershed Sciences and Engineering Services	**89,500**	**122,188**
Program Management	-	-
Watershed Reporting	-	-
Drinking Water Source Protection	-	-
Surface Water Quality Monitoring	33,000	-
Hydrometric Monitoring and Forecasting	25,000	60,688
Natural Hazard Studies	-	-
Groundwater Monitoring	-	-
Aquatic and Terrestrial Habitat Monitoring	-	-
Water and Erosion Control Infrastructure	-	-
Engineering Projects	31,500	61,500
Planning Advisory and Regulatory Services	**-**	**-**
Program Management	-	-
Site Specific Plan Review	-	-
Non-Site Specific Plan Review	-	-
S. 28 Conservation Authorities Act	-	-
S. 28 Conservation Authorities Act - Program Dev	-	-
Part 4 Clean Water Act	-	-
Part 8 Ontario Building Code	-	-
Septic Re-Inspection	-	-
Stewardship Services	**-**	**-**
Program Management	-	-
Tree Planting	-	-
Rural Clean Water Program	-	-
Shoreline Naturalization	-	-
Ontario Rural Wastewater Centre	-	-
Conservation Land Management Services	**-**	**68,000**
Program Management	-	-
Land Acquisition	-	-
Conservation Areas	-	18,000
Conservation Lands	-	50,000
Outdoor Education	-	-
Lease and Management Agreements	-	-
Corporate Services	**545,704**	**530,704**
Management and Members	-	-
Finance and Human Resources	-	-
Communications and Outreach	-	-
Fundraising and Partnerships	-	-
GIS and Information Management	8,000	8,000
Headquarter Lease and Management	537,704	522,704
Internal Recoveries	**210,000**	**273,293**
Internal Recoveries	210,000	273,293

EXPENSES	**845,204**	**994,185**
Watershed Sciences and Engineering Services	**89,500**	**122,188**
Program Management	-	-
Watershed Reporting	-	-
Drinking Water Source Protection	-	-
Surface Water Quality Monitoring	33,000	-
Hydrometric Monitoring and Forecasting	25,000	60,688
Natural Hazard Studies	-	-
Groundwater Monitoring	-	-
Aquatic and Terrestrial Habitat Monitoring	-	-
Water and Erosion Control Infrastructure	-	-
Engineering Projects	31,500	61,500
Planning Advisory and Regulatory Services	**-**	**-**
Program Management	-	-
Site Specific Plan Review	-	-
Non-Site Specific Plan Review	-	-
S. 28 Conservation Authorities Act	-	-
S. 28 Conservation Authorities Act - Program Dev	-	-
Part 4 Clean Water Act	-	-
Part 8 Ontario Building Code	-	-
Septic Re-Inspection	-	-
Stewardship Services	**-**	**-**
Program Management	-	-
Tree Planting	-	-
Rural Clean Water Program	-	-
Shoreline Naturalization	-	-
Ontario Rural Wastewater Centre	-	-
Conservation Land Management Services	**-**	**68,000**
Program Management	-	-
Land Acquisition	-	-
Conservation Areas	-	18,000
Conservation Lands	-	50,000
Outdoor Education	-	-
Lease and Management Agreements	-	-
Corporate Services	**545,704**	**530,704**
Management and Members	-	-
Finance and Human Resources	-	-
Communications and Outreach	-	-
Fundraising and Partnerships	-	-
GIS and Information Management	8,000	8,000
Headquarter Lease and Management	537,704	522,704
Internal Recoveries	**210,000**	**273,293**
Common Cost	-	31,500
Vehicles and Equipment	210,000	241,793
ANNUAL SURPLUS (DEFICIT)	**-**	**-**

RIDEAU VALLEY CONSERVATION AUTHORITY
Operating Budget by Department *Draft*
For the Budget Year 2025

Department	Municipal Levy		Special Levy		Province		Foundation		Other Revenue		Total Revenue		Total Expenses	
	2025	2024	2025	2024	2025	2024	2025	2024	2025	2024	2025	2024	2025	2024
Watershed Sciences and Engineering Services	**1,864,727**	**1,858,452**	**891,075**	**1,064,174**	**388,090**	**344,186**	**-**	**-**	**813,964**	**197,800**	**3,957,856**	**3,464,612**	**3,957,856**	**3,464,613**
Program Management	165,211	57,279	-	-	11,144	11,144	-	-	-	-	176,355	68,423	176,355	68,423
Watershed Reporting	171,807	164,566	-	-	-	-	-	-	-	-	171,807	164,566	171,807	164,566
Drinking Water Source Protection	-	-	-	-	277,227	233,323	-	-	-	-	277,227	233,323	277,227	233,323
Surface Water Quality Monitoring	336,689	324,273	163,457	163,457	-	-	-	-	-	-	500,146	487,730	500,146	487,730
Hydrometric Monitoring and Forecasting	328,570	314,722	-	-	13,111	13,111	-	-	112,800	132,800	454,481	460,633	454,481	460,633
Natural Hazard Studies	199,951	312,919	-	-	18,253	18,253	-	-	572,000	15,000	790,204	346,172	790,204	346,172
Groundwater Monitoring	214,156	222,168	-	-	-	-	-	-	-	-	214,156	222,168	214,156	222,168
Aquatic and Terrestrial Habitat Monitoring	380,411	397,456	-	-	-	-	-	-	12,000	-	392,411	397,456	392,411	397,456
Water and Erosion Control Infrastructure	67,932	65,069	727,618	900,717	68,355	68,355	-	-	-	-	863,905	1,034,141	863,905	1,034,141
Engineering Projects	-	-	-	-	-	-	-	-	117,164	50,000	117,164	50,000	117,164	50,000
Planning Advisory and Regulatory Services	**1,379,155**	**1,244,401**	**-**	**-**	**14,422**	**14,422**	**-**	**-**	**1,763,631**	**1,554,029**	**3,157,208**	**2,812,852**	**3,157,208**	**2,812,852**
Program Management	179,969	146,856	-	-	-	-	-	-	-	-	179,969	146,856	179,969	146,856
Site Specific Plan Review	359,566	336,904	-	-	-	-	-	-	380,031	400,000	739,597	736,904	739,597	736,904
Non-Site Specific Plan Review	183,760	183,523	-	-	14,422	14,422	-	-	-	-	198,182	197,945	198,182	197,945
S. 28 Conservation Authorities Act	636,251	558,335	-	-	-	-	-	-	227,000	290,000	863,251	848,335	863,251	848,335
S. 28 Conservation Authorities Act - Program Dev	19,609	18,783	-	-	-	-	-	-	-	-	19,609	18,783	19,609	18,783
Part 4 Clean Water Act	-	-	-	-	-	-	-	-	35,340	47,173	35,340	47,173	35,340	47,173
Part 8 Ontario Building Code	-	-	-	-	-	-	-	-	1,001,595	714,013	1,001,595	714,013	1,001,595	714,013
Septic Re-Inspection	-	-	-	-	-	-	-	-	119,665	102,843	119,665	102,843	119,665	102,843
Stewardship Services	**725,311**	**781,439**	**-**	**-**	**-**	**-**	**143,500**	**145,000**	**802,000**	**930,262**	**1,670,811**	**1,856,701**	**1,670,811**	**1,856,699**
Program Management	92,843	175,626	-	-	-	-	-	-	-	-	92,843	175,626	92,843	175,626
Tree Planting	132,093	126,526	-	-	-	-	120,000	120,000	450,000	606,864	702,093	853,390	702,093	853,390
Rural Clean Water Program	283,077	271,147	-	-	-	-	-	-	220,000	220,000	503,077	491,147	503,077	491,145
Shoreline Naturalization	217,298	208,140	-	-	-	-	23,500	25,000	30,000	30,000	270,798	263,140	270,798	263,140
Ontario Rural Wastewater Centre	-	-	-	-	-	-	-	-	102,000	73,398	102,000	73,398	102,000	73,398
Conservation Land Management Services	**1,287,154**	**1,110,909**	**-**	**-**	**-**	**-**	**84,011**	**36,000**	**429,496**	**483,748**	**1,800,661**	**1,630,657**	**1,800,661**	**1,630,658**
Program Management	91,923	83,510	-	-	-	-	-	-	-	-	91,923	83,510	91,923	83,511
Land Acquisition	-	-	-	-	-	-	15,000	15,000	-	-	15,000	15,000	15,000	15,000
Conservation Areas	828,595	750,619	-	-	-	-	-	-	129,496	162,794	958,091	913,413	958,091	913,413
Conservation Lands	366,636	276,780	-	-	-	-	8,000	8,000	13,000	11,000	387,636	295,780	387,636	295,780
Outdoor Education	-	-	-	-	-	-	61,011	13,000	255,000	277,954	316,011	290,954	316,011	290,954
Lease and Management Agreements	-	-	-	-	-	-	-	-	32,000	32,000	32,000	32,000	32,000	32,000
Corporate Services	**1,711,685**	**1,687,152**	**-**	**-**	**-**	**-**	**-**	**-**	**136,382**	**128,445**	**1,848,067**	**1,815,597**	**1,848,067**	**1,815,596**
Management and Members	378,631	346,407	-	-	-	-	-	-	-	-	378,631	346,407	378,631	346,407
Finance and Human Resources	483,236	462,870	-	-	-	-	-	-	127,470	128,445	610,706	591,315	610,706	591,315
Communications and Outreach	281,681	312,859	-	-	-	-	-	-	8,912	-	290,593	312,859	290,593	312,859
Fundraising and Partnerships	108,813	105,911	-	-	-	-	-	-	-	-	108,813	105,911	108,813	105,911
GIS and Information Management	301,553	301,334	-	-	-	-	-	-	-	-	301,553	301,334	301,553	301,334
Headquarter Lease and Management	157,771	157,771	-	-	-	-	-	-	-	-	157,771	157,771	157,771	157,771
Internal Recoveries	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**11,000**	**-**	**11,000**	**-**	**11,000**	**0**
Common Cost	-	-	-	-	-	-	-	-	11,000	-	11,000	-	11,000	(0)
Vehicles and Equipment	-	-	-	-	-	-	-	-	-	-	-	-	0	0
Total	**6,968,031**	**6,682,353**	**891,075**	**1,064,174**	**402,512**	**358,608**	**227,511**	**181,000**	**3,956,473**	**3,294,284**	**12,445,602**	**11,580,419**	**12,445,602**	**11,580,419**

RIDEAU VALLEY CONSERVATION AUTHORITY
Capital Budget by Department *Draft*
For the Budget Year 2025

Department	Municipal Levy		Special Levy		Province		Foundation		Other Revenue		Total Revenue		Total Expenses	
	2025	2024	2025	2024	Year	Year	2025	2024	2025	2024	2025	2024	2025	2024
Watershed Sciences and Engineering Services	**47,298**	**18,688**	**31,500**	**31,500**	**-**	**-**	**-**	**-**	**10,702**	**72,000**	**89,500**	**122,188**	**89,500**	**122,188**
Program Management	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Watershed Reporting	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Drinking Water Source Protection	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Surface Water Quality Monitoring	22,298	-	-	-	-	-	-	-	10,702	-	33,000	-	33,000	-
Hydrometric Monitoring and Forecasting	25,000	18,688	-	-	-	-	-	-	-	42,000	25,000	60,688	25,000	60,688
Natural Hazard Studies	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Groundwater Monitoring	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aquatic and Terrestrial Habitat Monitoring	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Water and Erosion Control Infrastructure	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Engineering Projects	-	-	31,500	31,500	-	-	-	-	-	30,000	31,500	61,500	31,500	61,500
Planning Advisory and Regulatory Services	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Program Management	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Site Specific Plan Review	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non-Site Specific Plan Review	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S. 28 Conservation Authorities Act	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S. 28 Conservation Authorities Act - Program Dev	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Part 4 Clean Water Act	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Part 8 Ontario Building Code	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Septic Re-Inspection	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stewardship Services	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Program Management	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tree Planting	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rural Clean Water Program	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shoreline Naturalization	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ontario Rural Wastewater Centre	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Conservation Land Management Services	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**68,000**	**-**	**68,000**	**-**	**68,000**
Program Management	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Land Acquisition	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Conservation Areas	-	-	-	-	-	-	-	-	-	18,000	-	18,000	-	18,000
Conservation Lands	-	-	-	-	-	-	-	-	-	50,000	-	50,000	-	50,000
Outdoor Education	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lease and Management Agreements	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Corporate Services	**280,704**	**280,704**	**-**	**-**	**-**	**-**	**-**	**-**	**265,000**	**250,000**	**545,704**	**530,704**	**545,704**	**530,704**
Management and Members	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Finance and Human Resources	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Communications and Outreach	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fundraising and Partnerships	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GIS and Information Management	8,000	8,000	-	-	-	-	-	-	-	-	8,000	8,000	8,000	8,000
Headquarter Lease and Management	272,704	272,704	-	-	-	-	-	-	265,000	250,000	537,704	522,704	537,704	522,704
Internal Recoveries	**-**	**6,793**	**-**	**-**	**-**	**-**	**-**	**-**	**210,000**	**266,500**	**210,000**	**273,293**	**210,000**	**273,293**
Common Cost	-	-	-	-	-	-	-	-	-	31,500	-	31,500	-	31,500
Vehicles and Equipment	-	6,793	-	-	-	-	-	-	210,000	235,000	210,000	241,793	210,000	241,793
Total	**328,002**	**306,185**	**31,500**	**31,500**	**-**	**-**	**-**	**-**	**485,702**	**656,500**	**845,204**	**994,185**	**845,204**	**994,185**

Rideau Valley Conservation Authority - 2025 Proposed Municipal Levy Apportionment

RVCA Member Municipality	Percentage in Watershed	Population	Population in Watershed	Current Value Assessment (modified) in Watershed			Levy Portion Based on CVA (modified)			Municipal Levy		
				For 2024	For 2025	Difference	For 2024	For 2025	Difference	For 2024	For 2025	Difference
Athens*	4	2,359	94	$ 13,473,229	**$ 13,548,421**	$ 75,193	0.0115	**0.0113**	-0.0001	$ 1,900	**$ 2,000**	$ 100
North Dundas*	1	9,225	92	$ 18,637,372	**$ 18,615,436**	$ (21,936)	0.0159	**0.0156**	-0.0003	$ 1,900	**$ 2,000**	$ 100
Clarence-Rockland	3	22,143	664	$ 106,657,710	**$ 109,169,745**	$ 2,512,035	0.0908	**0.0912**	0.0004	$ 6,375	**$ 6,655**	$ 280
Westport	100	548	548	$ 127,713,404	**$ 131,681,868**	$ 3,968,464	0.1087	**0.1101**	0.0013	$ 7,689	**$ 8,028**	$ 338
Augusta	19	6,019	1,144	$ 166,388,989	**$ 169,387,214**	$ 2,998,225	0.1417	**0.1416**	-0.0001	$ 9,891	**$ 10,326**	$ 435
Central Frontenac	22	3,678	809	$ 220,938,674	**$ 224,230,835**	$ 3,292,161	0.1881	**0.1874**	-0.0007	$ 13,093	**$ 13,670**	$ 576
Merrickville-Wolford	100	2,579	2,579	$ 431,950,979	**$ 446,005,202**	$ 14,054,223	0.3678	**0.3728**	0.0050	$ 26,043	**$ 27,189**	$ 1,146
Montague	100	3,077	3,077	$ 448,713,799	**$ 458,859,844**	$ 10,146,045	0.3820	**0.3835**	0.0015	$ 26,794	**$ 27,973**	$ 1,179
South Frontenac	13	15,393	2,001	$ 463,712,161	**$ 469,044,298**	$ 5,332,137	0.3948	**0.3920**	-0.0028	$ 27,389	**$ 28,594**	$ 1,205
Elizabethtown - Kitley	61	7,688	4,690	$ 737,355,274	**$ 745,775,618**	$ 8,420,344	0.6278	**0.6233**	-0.0045	$ 43,548	**$ 45,464**	$ 1,916
Beckwith	64	7,158	4,581	$ 918,981,599	**$ 945,822,850**	$ 26,841,251	0.7824	**0.7905**	0.0081	$ 55,229	**$ 57,659**	$ 2,430
Drummond/North Elmsley	70	6,586	4,610	$ 848,637,306	**$ 861,443,855**	$ 12,806,549	0.7225	**0.7200**	-0.0026	$ 50,302	**$ 52,515**	$ 2,213
Tay Valley	65	4,887	3,177	$ 863,472,631	**$ 874,304,495**	$ 10,831,864	0.7352	**0.7307**	-0.0044	$ 51,053	**$ 53,299**	$ 2,246
Smiths Falls	100	6,264	6,264	$ 1,074,804,601	**$ 1,124,788,035**	$ 49,983,435	0.9151	**0.9401**	0.0250	$ 65,679	**$ 68,569**	$ 2,890
Perth	100	4,459	4,459	$ 1,018,832,048	**$ 1,022,078,748**	$ 3,246,700	0.8674	**0.8542**	-0.0132	$ 59,682	**$ 62,308**	$ 2,626
Rideau Lakes	51	8,737	4,456	$ 1,263,392,536	**$ 1,283,420,831**	$ 20,028,295	1.0757	**1.0727**	-0.0030	$ 74,942	**$ 78,240**	$ 3,297
North Grenville	67	14,618	9,794	$ 1,994,123,658	**$ 2,081,192,828**	$ 87,069,170	1.6978	**1.7394**	0.0416	$ 121,527	**$ 126,873**	$ 5,347
Ottawa	46	795,792	366,064	$ 106,734,718,086	**$ 108,669,311,727**	$ 1,934,593,641	90.8748	**90.8237**	-0.0511	$ 6,345,499	**$ 6,624,672**	$ 279,173
	TOTALS:	**921,210**	**419,103**	**$ 117,452,504,054**	**$ 119,648,681,849**	**$ 2,196,177,795**	**100.00**	**100.00**	**0.00**	**$ 6,988,536**	**$ 7,296,033**	**$ 307,497**
											Levy Increase	**4.4%**

*Athens and North Dundas are charged our minimum levy amount which is $2,000 for 2025.