



# **Development Activity**

## **Policies and Procedures**

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

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**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. 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.
- c. The most stringent policies shall always prevail.
- 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. Approvals under 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*. Permits issued in accordance with this document do not represent approvals under any other act.
- f. Approvals under other legislation do not prejudice or supersede required approvals under the *Conservation Authorities Act*, except where explicitly stated within legislation, or noted within.
- 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.

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# 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 floodplains in response to the loss of life and economic impact of Hurricane Hazel. These regulatory powers were then refined over the years to prohibit or regulate not just the placement of fill but development, interference with wetlands and alterations to shorelines and watercourses. Most recently, the Act was amended in 2024 to introduce one consistent regulation across all conservation authorities that continues to regulate the same *development activities* in regulated areas with some exceptions.

## 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 and reshape watersheds. These processes become a natural hazard when people and structures are placed in areas directly impacted by these processes.

Historically, Ontario's waterways have been prime areas for settlement as they provided a means of transportation, a source of drinking water and a location for the construction of mills and other economic activities. Today, people enjoy the amenities associated with living near water or on slopes. Development located within hazardous lands places the health and safety of area residents and their properties at risk and has led to losses of life, losses of land, property damage and social disruption.

Conservation authorities, municipalities, provincial ministries, and other agencies are therefore tasked with working together to design communities and regulate development away from natural hazard areas to:

- a. prevent future loss of life.
- b. minimize property damage and social disruptions.
- c. avoid costly emergency operations, evacuations, disaster relief and remedial works.
- d. ensure development does not aggravate existing hazards or create new hazards.
- e. protect watercourses and wetlands, the loss of which can increase flooding and erosion.

- f. require mitigating measures for works that may singly or cumulatively cause an increase in flooding, erosion or adversely affect watercourses or wetlands.

## 2 Regulation Procedures

### 2.1 Part VI of the *Conservation Authorities Act*

Part VI of the *Conservation Authorities Act* sets out how various *development activities* are regulated. Reference should be made to the Act and regulations for the complete legal text. In accordance with these requirements, this chapter sets out procedural information.

### 2.2 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.

### 2.3 Permit Issuance

Section 28.1 of the *Conservation Authorities Act* establishes the legal 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 policy and procedures document sets out guidance on specific types of development activities and forms the basis by which a project's ability to meet the conservation authority tests shall be evaluated.

## 2.4 Regulation Exceptions

Property owners are encouraged to confirm with RVCA staff prior to proceeding to ensure scope of work is exempt from requiring a permit. Exceptions listed 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 Act Exceptions

The 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 appropriate *development activities* without the need for further required approval, the RVCA provides for exceptions to the regulations 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 to the *gross floor area* or *habitable floor space*.
  - c. no change to the existing footprint.
  - d. no change to a foundation wall.
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* 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 replacement of existing above-ground utility service connection 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 habitable vehicle or trailer, which meets all of the following criteria:
  - a. Capable of being removed from *flooding hazard* lands in the event of a flood event.
  - b. No structural modifications that would require disassembly prior to being removed from the *flooding hazard*.
  - c. No connections to permanent electrical, water or sewage disposal services.
  - d. Registered as a vehicle under the *Highway Traffic Act*, R.S.O. 1990.
9. Removal of beaver dams in accordance with standard best practices.
10. Installation of fencing, where supports and foundations result in no changes to existing grades.
11. Installation and maintenance of sustainable shoreline protection works through the use biodegradable coir logs and vegetation plantings, excluding any excavation or placement of covering topsoil greater than 0.15 metres.

## 2.5 Jurisdiction and Mapping of Regulated Areas

The watershed jurisdiction of the conservation authority is established under section 3 of the *Conservation Authorities Act*. RVCA's watershed 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.

The *Conservation Authorities Act* and Section 4 of *Ontario Regulation 41/24* provide for the mapping and regulation of lands at risk of natural hazards. Permits may be required prior to undertaking *development activity* within a regulated area. Mapping of regulated areas is undertaken by RVCA as resources permit and is reviewed and updated on an ongoing basis. Updates to existing mapping and new hazard mapping are 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 the area where the regulation applies. It is not 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: Regulation Limit Delineation Table**

<b>Regulated Feature</b>	<b>Development / Site alteration Regulation limit</b>
<i>Flooding hazard</i>	Mapped <i>flooding hazards</i> + 15 metres
<i>Erosion hazard</i>	Mapped <i>erosion hazard</i> + 15 metres, or where delineated through an approved site-specific study
<i>Meander belt</i>	20x <i>bankfull width</i> , or delineated through an approved site-specific study
<i>Dynamic Beach</i>	<i>Mapped dynamic beach hazard</i> + 15 metres
<i>Surface Water Feature (Lakes and Watercourses)</i>	Surface water feature + 15 metres allowance from the stable top of bank or shoreline
<i>Wetland</i>	The boundary of a <i>wetland</i> + 30 metres

## 2.6 Permit Phases

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

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

## 2.7 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 it if requested by an applicant. The pre-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 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 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.

## 2.8 Complete Application

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.

### 2.8.1 Application 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 *Development Activity* 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, if
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 also prepared best management guidelines to assist in determining the scope required for technical reports as the level of detail required for studies and reports can vary widely depending on the scale, location, and complexity of a proposal and type of feature or hazard. In some situations, a single-page letter from a qualified expert will be sufficient, while in other cases a major study will be necessary.

### 2.8.2 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 whether an application is complete in accordance with Section 7 of Ontario Regulation 41/24.

The review for a complete application only confirms that all items listed have been provided and does not prejudice that the contents of the application are satisfactory for a recommendation to approve or deny a permit.

Revisions or clarifications requested as the result of a technical review are not considered new information.

## 2.9 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 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.

## 2.10 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.

The fee for a technical review is 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 must be paid at the time of submission of technical reports.

In the review of certain technical studies there may be a need for RVCA to retain external expertise to assist in the review. The cost of such a peer review is borne by the applicant and shall be identified during pre-consultation.

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](http://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.

## 2.11 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 implementing 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 shall not be refunded.

### 2.11.1 Decisions

Upon a full review of a complete application, RVCA staff will proceed and 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 the 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 eliminating the need to fulfill the requirements of other federal, provincial and municipal bylaws, statutes, regulations and requirements.

### 2.11.2 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 authorization by the General Manager.

### 2.11.3 Stamped Plan Approvals

*Development activity* considered small scale or low risk may be deemed appropriate for approval without a permit. Subject to staff discretion, design drawings submitted for review may be stamped and signed by authorized RVCA staff and serves as the permit, for the purposes of approval under the *Conservation Authorities Act*. A Stamped Plan approval may only be issued where there are no deviations from the RVCA Policies and Procedures. Projects eligible for a Stamped Plan Approval shall require no additional conditions beyond adherence to the plan itself; however, may be subject to other federal, provincial, and municipal by-laws, statutes, regulations, or other requirements.

This process is intended to streamline simple reviews and provide faster approvals where there is no risk to public health, property damage or exacerbation of the 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* or non-habitable detached *accessory structures*, or projects that are within a regulated area but located outside of an area of natural hazard.

### 2.11.4 Decision Timelines

Decision timelines are legislated pursuant to subsection 28.1(22) of the *Conservation Authorities Act*, which directs that if 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.

### 2.11.5 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.

### 2.11.6 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.

## 2.12 Amending/Revising Permits

If 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 not in keeping with the permission shall require 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, may require a new permit application or may result in prior approvals being subject to cancellation.

## 2.13 Hearings

The RVCA Executive Committee is an appointed subset of 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](http://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*.

## 2.14 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* (currently the Minister of Natural Resources and Forestry) 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 one appeal mechanism related to a permit application at a time.

## 2.15 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 a “notice of intent to cancel a permit.” 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/order of the RVCA Executive Committee an appeal of the decision may be made to the Ontario Land Tribunal.

## 2.16 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*.

## 2.17 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 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 will seek an order for rehabilitation of the site and/or removal of any buildings and/or structures ruled in contravention of Ontario Regulation 41/24.

## 2.18 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.”

## 2.19 Policy and Procedure Amendments

This policies and procedures document shall be reviewed as required by O. Reg 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 scale 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 during which the public can review changes and submit comments. 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

### 3.1 Natural Hazards

Hazardous lands are where land could be unsafe for development because of naturally occurring processes. For the purpose of this document, natural hazards are defined specifically as being those associated with flooding, erosion, dynamic beaches, unstable soil, or bedrock.

Ontario Regulation 41/24 provides the RVCA with the ability to establish policies and procedures, as the authority considers advisable, for the purpose of administering the issuance of permits.

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, due to the presence of a natural hazard, *development activity* may be permitted where it is demonstrated that all of the following criteria have been met:

1. *Development activity* does not create a new, or exacerbate an existing, natural hazard risk and does not increase the impacts related to natural hazards.
2. *Development activity* does not likely have the potential to jeopardize public health or safety.
3. *Development activity* does not likely increase the risk of damage or destruction of the property.
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.

### 3.1.2 Natural Hazards Restricted Uses

Specific land uses have been identified, by provincial interest, as higher risk due to the nature of activity associated with the use and inappropriate to be located where natural hazards are present.

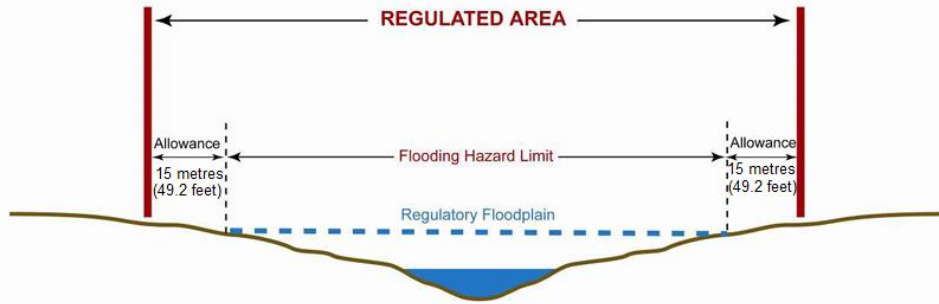
1. *Development activity* for the following uses shall be restricted within an area identified as natural hazards:
  - a) an institutional use, including hospitals,
  - b) long-term care homes,
  - c) retirement homes,
  - d) pre-schools,
  - e) school nurseries,
  - f) day cares and schools,
  - g) 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*.
2. *Development activity* to allow for a new restricted use shall be prohibited.
3. *Development activity* for an existing restricted use may be permitted where works protect an existing use from the hazard and do not result in the expansion of the restricted use.

## 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 Floodplain basis, whereby the entire floodway is the extent of the hazard.





### 3.2.1 Flooding Hazard General Policies

In addition to the *Natural Hazard General Policies*, *development activity* within a regulated area, due to the presence of a *flooding hazard*, may be permitted where it has been demonstrated that all of the following criteria have been met:

1. *Development activity* shall demonstrate that the *flooding hazard* cannot be reasonably avoided, through an alternative location on the subject property or to a location less susceptible to risk.
2. *Development activity* shall result in no increase in the number of existing *dwelling units*.
3. *Development activity* shall meet all floodproofing policy requirements.
4. *Development activity* shall be consistent with *safe access* policies.
5. *Development activity* shall protect against surficial erosion through proper drainage, erosion and sediment controls or site stabilization and restoration.
6. *Development activity* shall result in no net increase in fill or material, except where consistent with the *Placement of Fill* policies.
7. 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*.

### 3.2.2 Flooding Hazards Development Activity Policies

In addition to the *Flooding Hazard General Policies*, *development activity* associated with a specific land use or nature of development, may be permitted where it has been demonstrated that all of the following criteria have been met:

#### ***Existing Vacant Lots of Record***

1. New dwelling unit(s) shall not be permitted on vacant lots 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<sup>2</sup>, where safe access is demonstrated.
  - b. A cumulative total gross floor area not exceeding 20 m<sup>2</sup>, 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 not be permitted for the overnight housing of livestock.

### **Roofline Overhangs**

6. 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<sup>2</sup>.
7. 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.
8. Roofline overhang supports shall be properly anchored to minimize risk of being displaced during a flood event.

### **Accessory Structures**

9. Accessory *buildings or structures* shall be non-habitable and shall not provide the ability for conversion into habitable space.
10. A maximum of one (1) detached accessory *building or structure* with a total gross floor area up to a maximum of 50 m<sup>2</sup>.
11. Accessory *buildings or structures* shall have a maximum of one (1) storey;
12. Accessory structures shall be properly anchored to minimize risk of being displaced during a flood event.
13. An additional cumulative maximum gross floor area of 20 m<sup>2</sup> for peripheral structures (such as decks) connected to an existing *building or structure*.

### **Reconstruction**

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

### ***Private Sewage Disposal Systems***

16. Construction of new, and the repair or replacement of a sewage disposal system may be permitted.
17. 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.

### ***Parking Lots and Structures***

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

### ***Open Storage***

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

### ***Adjacent Lands***

22. *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***

23. Above ground swimming pools shall not be permitted within a *flooding hazard*.
24. In-ground swimming pools may be permitted where it is demonstrated that the structure shall be protected against hydrostatic pressure.

## **3.2.3 Floodproofing**

All *development activity* within the *flooding hazard* limit shall be floodproofed to the greatest extent possible. For additional information, reference should be made to the *Technical Guide River and Stream Systems: Flood Hazard Limit*, MNR 2002.

### **3.2.3.1 Wet Floodproofing**

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

1. The underside of a main floor used as habitable gross floor area shall be at least 0.3 m above the regulatory flood elevation.

2. Stamped technical drawings must indicate the means by which hydrostatic pressure is to be equalized on either side of the foundation walls and slab.
3. Passive flood vents shall be sized appropriately and installed in locations that reduce the impact of flooding hazards on the structure.
4. *Buildings* or *structures* may be constructed on appropriately anchored pier, pile or column foundation style construction, where no foundation walls are proposed.
5. Construction material must withstand alternating wetting and drying such as concrete, pressure treated wood etc.
6. Portions of a *building* or *structure* subject to flooding as part of wet floodproofing shall not be permitted as habitable gross floor area.
7. Sump pump may be required (to facilitate clean-up).
8. 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.

#### 3.2.3.2 *Dry Floodproofing*

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

1. The underside of a main floor used as habitable gross floor area shall be at least 0.3 m above the regulatory flood elevation.
2. All openings (windows, vents, doors), mechanical, heating and electrical must be located at least 0.3 m above the regulatory flood level.
3. 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.
  - d. Alternative design techniques such as installing watertight doors, seals or floodwalls shall protect the *building* or *structure* from the impacts of the flood hazard.
4. 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 balance cut and fill policies, or where permitted by Area Specific Policies.

#### 3.2.3.3 *Floodproofing for Minor Additions*

Where proposing to utilize an existing non-floodproofed *building or structure*, *development activity* 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 the non-floodproofed gross floor area below the regulated flood elevation.

#### 3.2.3.4 *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, as to not be dislodged during a flood event.
2. *Accessory buildings or structures* are floodproofed to the regulated flood level standard or applicable elevation as shown in the Marine Facilities Floodproofing Standards Table (Appendix 4.2).
3. No servicing other than electrical, conforming to Electrical Safety Authority (ESA) requirements are permitted within in-water accessory 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 encourage that improvements achieve, to the greatest extent possible, floodproofing measures where they can be implemented.

#### 3.2.3.6 *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 an easement agreement be prepared and registered on title at the applicant's expense, giving the RVCA the right of access to the property only and thus providing notice of the owner's obligations and the Authority's "interest" in the lands and structure erected 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 emergency services and evacuation requirements safe access shall be calculated in relation to the 1:100 year flood event.

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<sup>2</sup>/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 2: 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 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. For reference purposes, excerpt mapping of these areas are provided in Section 5.

### 3.2.5.1 Flood Control Works Areas

Within specified *flooding hazard* areas, *development activity* may consider more permissive policies due to the presence of publicly maintained flood control works. These 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

In addition to the *Flooding Hazard General Policies and Flooding Hazard Development Activity Policies*, *development activity* in areas protected by flood control works may be permitted where all of the following criteria are met:

- a. Minor additions may be permitted to a maximum cumulative total gross floor area exceeding 50 m<sup>2</sup>.
- b. New dwelling units may be permitted.
- c. Dry floodproofing may be permitted, to accommodate a portion of a dwelling unit's habitable gross floor area below the regulated flood elevation.

### 3.2.5.2 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.

### 3.2.5.3 Floodplain Spill Areas

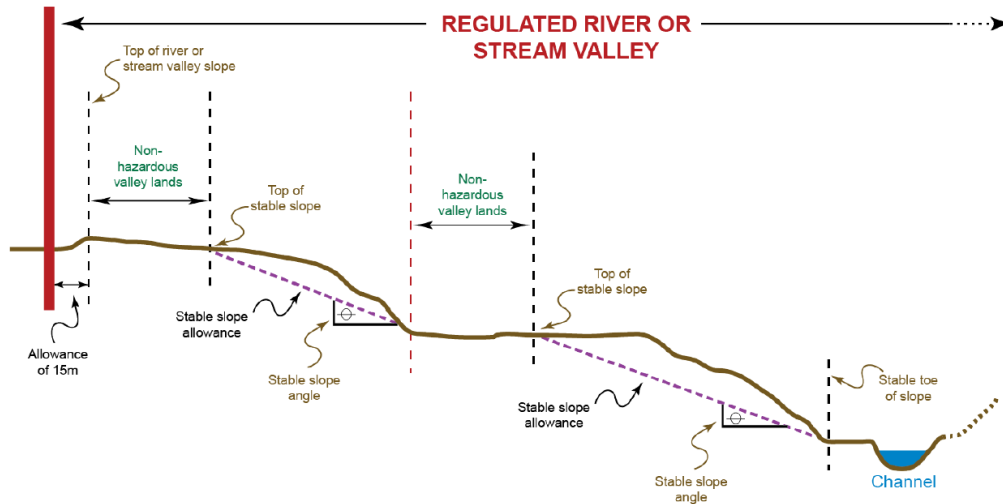
In addition to the *Flooding Hazard General Policies and Flooding Hazard Development Activity Policies*, *development activity* in areas identified as Floodplain Spill Areas may be permitted subject to the following criteria:

- 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*, such as lakes and watercourses. 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*.



### 3.3.1 Erosion Hazard General Policies

In addition to the *Natural Hazard General Policies*, *development activity* within an *erosion hazard* may be permitted where a site-specific geotechnical and geomorphic assessment has demonstrated that:

1. *Development activity* is outside of an area of erosion and unstable slopes.
2. There is no slope stabilization or erosion mitigation required to achieve suitable conditions for new *development activity*.
3. Recommendations of the supporting geotechnical report are consistent with and based on established provincial and RVCA guidelines.
4. 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.
5. There is no adverse impact on existing or future erosion and slope stability on the property or adjacent lands.
6. 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.
7. The potential of increased loading forces on the top of the slope is assessed through appropriate structural and geotechnical engineering design.
8. The potential for surficial *erosion* is addressed by an approved drainage plan.
9. *Safe access* for preventative actions or maintenance or *access* during an emergency is not impacted.
10. New *buildings* or *structures* are setback to a location outside the limit of hazard, inclusive of a 6 metre erosion access allowance.



11. *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

In addition to the erosion hazard general policies, the following apply to site or land use specific 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 and emergency flow route structures as part of an approved outlet.

#### ***Existing Lots of Record:***

3. A smaller setback than the minimum 15 metres may be permitted where an existing lot does not have enough space for required setbacks.
4. The approved erosion access allowance is maintained.
5. A geotechnical investigation must show that some infringement within the setback area can be managed on-site without causing long-term health and safety harm.
6. The setback reduction cannot permit development past the physical top of slope.

#### ***Parks and Passive Outdoor Recreation***

7. Public parks and passive outdoor recreational uses, may be permitted within the access allowance where it has been demonstrated:
  - a) there is no reasonable alternative location outside of the access allowance setback.
  - b) buildings, structures, private servicing and parking facilities are located outside of the erosion hazard.

#### ***Vehicular Access***

8. 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***

9. Minor addition 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***

10. 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***

11. 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.
12. Drainage should be directed away from the top of slope.

***Swimming Pools***

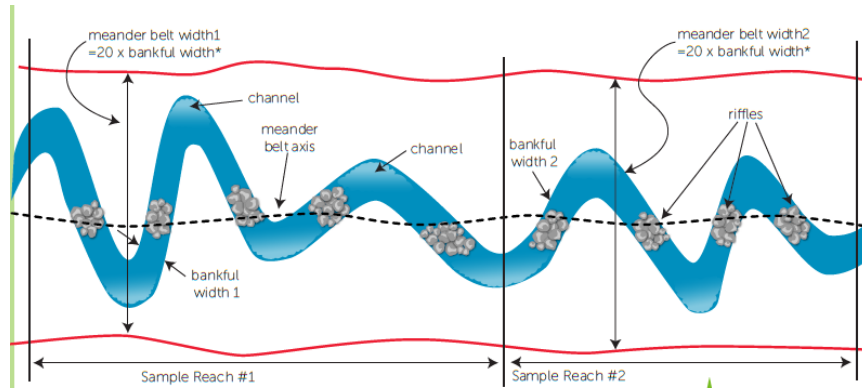
13. Above ground swimming pools shall not be permitted.
14. Drainage shall be controlled and not directed towards or within a slope.

**3.3.3 Erosion Hazard Stabilization Policies**

- 1. Stream bank, slope and valley stabilization may be permitted subject to the shoreline and watercourse policies to protect against failure events occurring.
- 2. 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.



1. 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. Policies applicable to areas regulated by *meander belts* are as follows:
  - a. *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.
  - b. 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.
  - c. *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.

### 3.4 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.

#### 3.4.1 Dynamic Beach Hazards General Policies

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.

*Development* may be permitted within the allowance adjacent to the dynamic beach hazard if it has been demonstrated to the satisfaction of the RVCA that the General Policies have been satisfied and:

- a. There is no new or aggravated hazard.
- b. Safe access, to the satisfaction of the RVCA, to and from a public road is provided.
- c. *Development activity* is not in the flooding and dynamic beach allowance.

### 3.4.2 Shoreline Protection

In addition to the *Erosion Hazard General Policies*, *development activity* that proposes to modify a shoreline, may be permitted where it has been demonstrated that all of the following criteria have been met:

1. Proposed shoreline modifications are supported through appropriate engineered designs.
2. Base flows shall not be adversely affected by any work.
3. The work shall not alter existing shoreline contours.
4. Surplus *fill* is removed from *flooding hazards*, *erosion hazards* and *wetlands*.
5. Alignment results in no significant effects on *watercourse* hydraulics.
6. Transitions from proposed protection to adjacent shorelines is designed to *mitigate* local *erosion*, debris accumulation, or undesirable changes in localized currents.
7. The design incorporates adequate drainage features; and
8. There is no aggravation or creation of erosion hazards in proximity to stable or unstable slopes.
9. 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.

#### ***Shoreline Amenity Areas***

10. New, impacted, or open areas shall be permitted for amenity areas, 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.

#### ***Beaches***

11. The importing of materials 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.

#### ***Hardscaping***

12. *Hardscaping* (e.g. interlock brick, patios) shall not be permitted within 15 metres of a surface water feature (lake or watercourse).

13. Stabilization work must not result in the removal of significant natural shoreline vegetation.
14. Bioengineering must be considered first for shoreline stabilization.
15. Shoreline hardening techniques that create a vertical wall, such as the use of concrete, steel, railway ties, gabion baskets, and other vertical *structures* shall not be permitted.
16. Armour stone, (e.g. cap rock or limestone) shall not be permitted except where active erosion is demonstrated along the Ottawa River shoreline.
17. The use of riprap shall only be permitted in areas of active erosion as confirmed by RVCA staff on the property, and where alternative vegetative techniques cannot be used due to site specific conditions.

### 3.5 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.

#### 3.5.1 Unstable Soil or Bedrock Hazard General Policies

*Development activity* is prohibited within *hazardous sites* associated with unstable soils or unstable bedrock except where it has been demonstrated that:

1. A technical study prepared by a qualified professional provides that:
  - a. A more precise delineation of the limit of the hazardous land is provided, demonstrating that *development activity* is located outside of the hazard.
  - b. There is no reasonable alternative location for *development activity* to occur (such as public infrastructure).
  - c. the risk of stability which would result in structural failure or property damage is eliminated or minimized.
  - d. Peer review may be required, whereby the costs of peer review shall be borne by the applicant.

#### 3.5.2 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.

In addition to the *Natural Hazard Policies*, within a regulated area where sensitive marine clays are associated with unstable slopes, *development activity* may be permitted where it has been demonstrated that all of the following criteria have been met:

1. *Development activity* is limited to areas outside the limit of hazard or a location, identified through technical studies, that is consistent with the *RVCA's Technical Guidelines for Retrogressive Landslide Hazards and Risk Assessment*.

### 3.5.3 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.

In addition to the *Natural Hazard General Policies*, *development activity* located within a regulated area where bedrock hazards are present, may be permitted where it has been demonstrated that all of the following criteria have been met:

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 not be permitted 50 metres of a karst feature.

### 3.5.4 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.

In addition to the *Natural Hazard General Policies*, *development activity* located within a regulated area where organic soils are present, may be permitted where it has been demonstrated that all of the following criteria have been met:

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.

### 3.6 Placement of Fill

The placement of fill or other materials within a *flooding hazard* or *erosion hazard* shall be generally prohibited.

#### 3.6.1 Balanced Cut and Fill

In addition to the *Natural Hazard General Policies*, *development activity* associated with the placement of fill 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 design of a balanced cut and fill shall be consistent with the *RVCA Technical Guidelines for Balanced Cut and Fill Applications*.
2. The loss of flood plain storage volume within the regulatory floodplain, 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).
3. The volume of available flood plain storage capacity within the affected river or stream reach shall not be reduced.
4. The energy grade associated with the flooding hazard shall not be increased.
5. All excavated material shall be removed to an area that is outside of any regulated area.
6. 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.
7. The balanced cut and fill will not have an adverse impact on erosion hazards, wetlands, valleylands, or hydrologic functions.

#### 3.6.2 Grading Associated with Private Sewage Disposal Systems

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, and shall take into consideration all of the following criteria:

- a. The type of sewage system or class of system.
- b. The location of the system.
- c. The soil conditions.

- d. The type of natural hazards.
- e. Ground water table.
- f. Other site-specific requirements.

### 3.6.3 Grading Associated with Landscaping

In addition to the *Natural Hazard General Policies*, *development activity* associated with the 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<sup>3</sup> 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.

## 3.7 Watercourse Interference

Any alteration to the channel of a *watercourse*, requires permission from the RVCA. Watercourses provide important functions hydrologically and supporting the health of these features including their riparian zones, promote stronger resiliency and protections from natural hazards.

### 3.7.1 Watercourse Interference General Policies

In addition to *Natural Hazard General Policies*, *development activity* within a lake or watercourse or within 15 m of a lake or watercourse shall be permitted where it is demonstrated that:

1. *Development activity* demonstrates that hydrologic function of the watercourse and riparian area have been maintained.
2. Interference shall be designed in accordance with natural channel design principles.
3. *Development activity* maintains or improves on-site floodplain storage capacity, slope stability and erosion protection.
4. *Development activity* does not increase the extent or impact of off-site flooding hazards or erosion hazards.
5. Sediment and erosion control measures are incorporated during the and after construction phase, until disturbed areas have been permanently stabilized.
6. Temporary slope stability is maintained.
7. Enclosures of watercourses are not permitted, except in circumstances to address unavoidable risks to public health and safety.



### 3.7.2 Watercourse Interference Development Activity Policies

In addition to *Watercourse Interference General Policies*, *development activity* within a lake or watercourse or within 15 m of a lake or watercourse shall be permitted where it is demonstrated that:

#### **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 *structures* avoid the *erosion hazard* to accommodate natural *watercourse* movement.
5. Crossing structures are designed to minimize the risk of flood *damage* and erosion hazards to *upstream* or *downstream* 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* (see Best Management Practice 7) 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 functions* 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.

### **3.7.3 Water Control Structures**

Alterations, maintenance or decommission of an existing water control structure may be permitted where it can be demonstrated that watercourse functionality is maintained and there are no adverse impacts on the capacity of the structure to pass flows.

#### ***Dams***

1. *Construction*, alteration and maintenance of *dams* 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.
2. The retirement or the removal of *dams* 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**

3. 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.
4. 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.
5. New on-line ponds are not permitted within a *watercourse*, except where part of a headwater wetland creation, enhancement, or restoration project.

### 3.7.4 Marine Facilities

Marine facilities by their nature are required to be placed within a waterbody. The location of proposed structures may include lands adjacent to those owned by the applicant. The policies in this section are intended apply to a *building* or *structure* located in-water, and include, but are not limited to marinas, boat houses, boat ports and docks.

#### 3.7.4.1 Marine Facilities General Policies

In addition to applicable *Natural Hazard General Policies* and *Wetland General Policies*, *development activity* located within a lake or watercourse, may be permitted where it is demonstrated that:

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 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.

#### 3.7.4.2 Marine Facilities Development Activity General Policies

In addition to applicable *Marine Facilities General Policies*, *development activity* related to a specific use located within a lake or watercourse, may be permitted where it is demonstrated that:

##### **Marinas**

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

##### **Boathouses and Boat Ports**

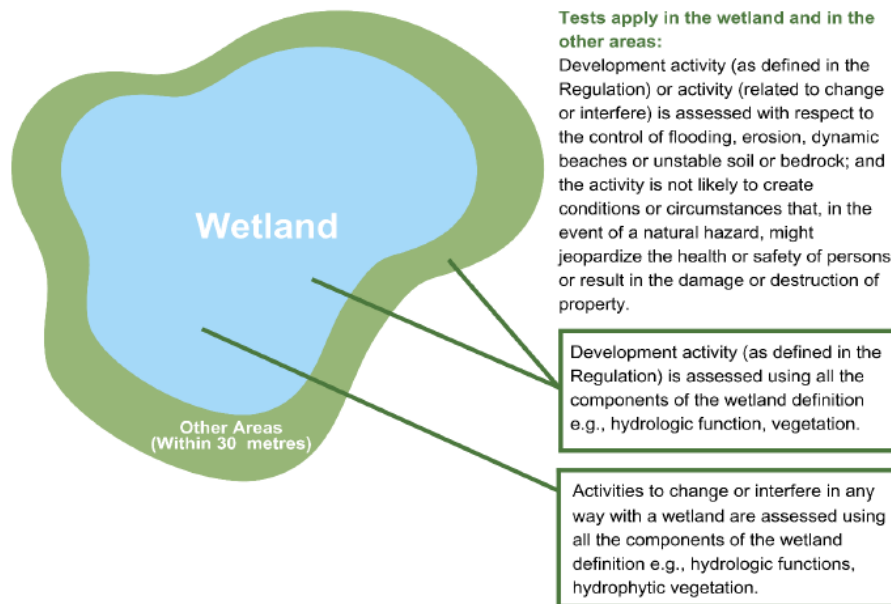
2. One (1) *building or structure*, per associated property, having a minimum shoreline frontage of 60 m and is not located within a *narrow channel*.
3. *Buildings or structures* shall be limited to a maximum of one (1) storey.
4. *Buildings or structures* shall meet applicable standards for floodproofing 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.

##### **Docks**

6. Docks shall be limited to a maximum shoreline width of 2 m for access purposes.
7. Shall be permitted up to a maximum cumulative total gross floor area of 30 m<sup>2</sup>.
8. Shall not be constructed on a permanent foundation, such as concrete or cribs.

## 3.8 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, infiltrates into the ground to replenish aquifers, and allows for evaporation. Wetlands in the floodplain of a watercourse also provide for the storage of flood waters and reduce energy associated with flood flows and potentially reducing downstream erosion.



### 3.8.1 Wetlands General Policies

In addition to the *Natural Hazard Policies*, *development activity* located within a regulated area due to the presence of a wetland, may be permitted where it has been demonstrated that all of the following criteria have been met:

1. *Development activity* shall be explicitly permitted by the *Wetland Development Activity Policies*.
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. *Development activity* shall result in no net increase in *fill*, including through sedimentation related to stormwater discharge.
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 during the growing season (June-Sept) and confirmed through independent field investigation by RVCA staff.

### 3.8.2 Wetlands Development Activity Policies

In addition to the *Wetlands General Policies*, *development activity* located within a regulated area, due to the presence of a wetland, may be permitted where it has been demonstrated that all of the following criteria have been met:

#### ***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<sup>2</sup>.
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<sup>2</sup>.

#### ***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 public road.
7. Maintenance of an existing private road or driveway

#### ***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.
  - d. Existing agricultural activities.
  - e. Selective tree harvesting.

#### ***Existing Vacant Lots of Record***

9. *Development activity* to construct one (1) dwelling unit may be permitted within a wetland or other areas on a vacant lot of record where:
  - a. The property was created prior to April 1, 2024.
  - b. The wetland was not regulated by the RVCA on or before July 27, 2023.

- c. *Natural hazards* related to unstable soils can be addressed.
- d. The property is not located within a *flooding hazard* or *erosion hazard*.
- e. The location selected for *development activity* minimizes the total interference to the wetland.

### 3.8.3 Wetland Offsetting and Compensation

*Development activity* or *site alteration* that would result in loss of *wetlands*, shall be required to compensate 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. The *wetland* to be compensated was not regulated by the RVCA on or before July 27, 2023
3. A detailed compensation plan (wetland offsetting plan) indicates how a *net environmental gain* will be achieved through the *development* or *site alteration*.
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.

## 3.9 Conservation Projects

*Conservation projects*, 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 benefits of the project are demonstrated to the satisfaction of the RVCA.
2. Stream bank stability and erosion is enhanced.
3. *Hydrologic functions* are restored and enhanced using *best management practices* including site or infrastructure design and appropriate remedial measures.
4. *Natural channel design* principles are followed to the extent possible.
5. Maintenance requirements are minimized.

### 3.9.1 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.

## 3.10 Act Specified Activity Policies

### 3.10.1 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), the authority shall not attach conditions to the permit unless the conditions relate to controlling flooding, erosion, dynamic beaches or unstable soil or bedrock.

### 3.10.2 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.

### 3.10.3 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 for:

- 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*.
- c. Such other requirements as may be prescribed are satisfied.



## 4 Appendices

### 4.1 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. The *erosion access allowance* is applied to provide for emergency *access* to *erosion* prone areas, provide for construction *access* for regular maintenance and *access* to the site in the event of an *erosion* event or failure of 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 an *erosion* prone area.

**Accessory building or structure:** means a *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 *buildings* or *structures* 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.

**Boat house:** 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) *structures* 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 *wetlands*, 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.

**Floodplain:** 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 *buildings, structures* or properties to protect them from flood *damage* 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 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 beaches* 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 *wetlands* or *watercourses*, 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 bankfull channel width where

the bankfull channel width is measured at the widest riffle section of the reach. A riffle is a section of shallow rapids where the water surface is broken by small waves. The meander belt is centred over a meander belt axis that connects the riffle section of the stream.

**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.

**Provincially significant wetland:** *wetlands* that have been evaluated by the Ministry of Natural Resources, or designated person, as Provincially Significant using evaluation procedures established by the Province of Ontario, as amended from time to time.

**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.

**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 *buildings* or *structures*.

**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.

**Shoreline protection works:** means the combination of non-structural or structural works and allowances for slope stability and flooding, *erosion* or *dynamic beach hazards* to reduce the *damages* 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*.

**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 *headwaters, rivers, stream* channels, inland lakes, seepage areas, recharge/discharge areas, springs, *wetlands*, 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 systems*.

**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 *buildings* or *structures*, 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.

## 4.2 Marine Facilities Floodproofing Standards

The elevations contained in the tables below are to be used as a reference when designing or evaluating floodproofing requirements for new accessory structures, including in-water *buildings* or *structures*, such as *boathouses* or *boat ports*, where a regulated flood level is not available:

**Marine Facilities Floodproofing Standards Table**

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

### 4.3 Complete Application Requirements

In review of complete application requirements for a *Development Activity* Permit, the RVCA may request additional technical requirements, including, but not limited to the following:

1. legal survey;
2. existing and proposed topographic and/or metric geodetic elevations;
3. flood line delineation study/hydraulics;
4. structural elevations and construction details;
5. architectural plans;
6. channel crossings assessment;
7. erosion and sediment control plans;
8. grading plans;
9. functional servicing plan;
10. geotechnical/slope stability study;
11. headwater drainage feature assessment;
12. hydrogeological assessment
13. landscaping/site rehabilitation plan;
14. environmental impact studies;
15. watercourse erosion analysis stream corridor protection study;
16. stormwater management study/design drawings;
17. water balance analysis;
18. construction access and staging plans;
19. coastal engineering study;
20. soil quality report;
21. other reports/studies identified through staff consultation;

#### 4.4 Technical Guidelines

*This section shall include technical guidelines associated with subject matter specific guidelines to assist in the preparation of technical studies, assessments, and plans. The RVCA will strive to develop guidelines on an on-going basis to support applicants in their permit application process, through a consultative, industry best practice-based approach while being innovative and reactive to emerging trends.*



## 5 Schedules

### 5.1 Area Specific Flooding Hazard Schedules

#### List of Area Specific Policy Areas by Type

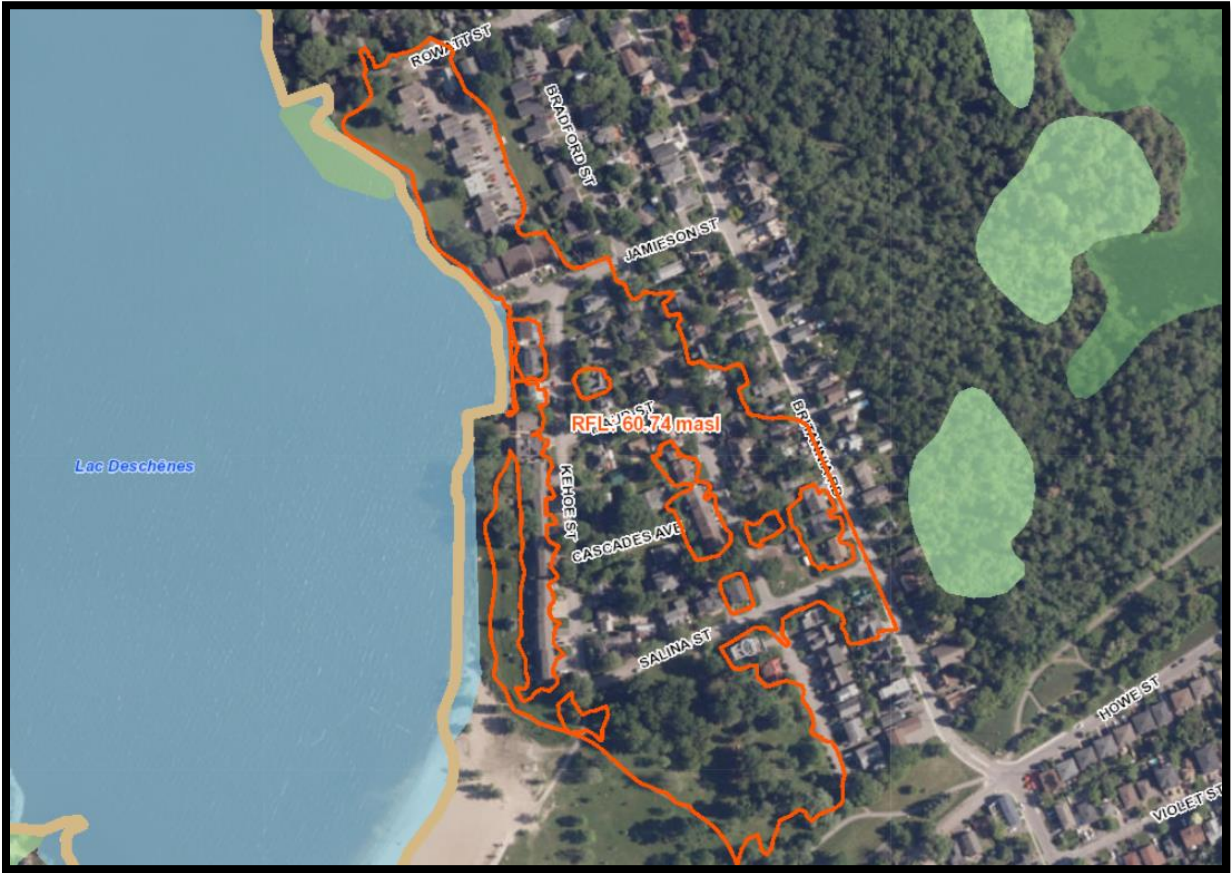
<b>Flood Protection Areas</b>	<b>Spill Zones</b>	<b>Areas of Shallow Flooding</b>
Brewer Park & Carleton University	Associated with Becketts Creek	Flowing Creek
Britannia Village	Associated with Bilberry Creek	
Warrington Drive & Windsor Park	Associated with Britannia Village	
	Associated with Mud Creek	
	Associated with Nichols Creek Wetland	

### 5.1.1 Brewer Park and Carleton University Flood Protection Area



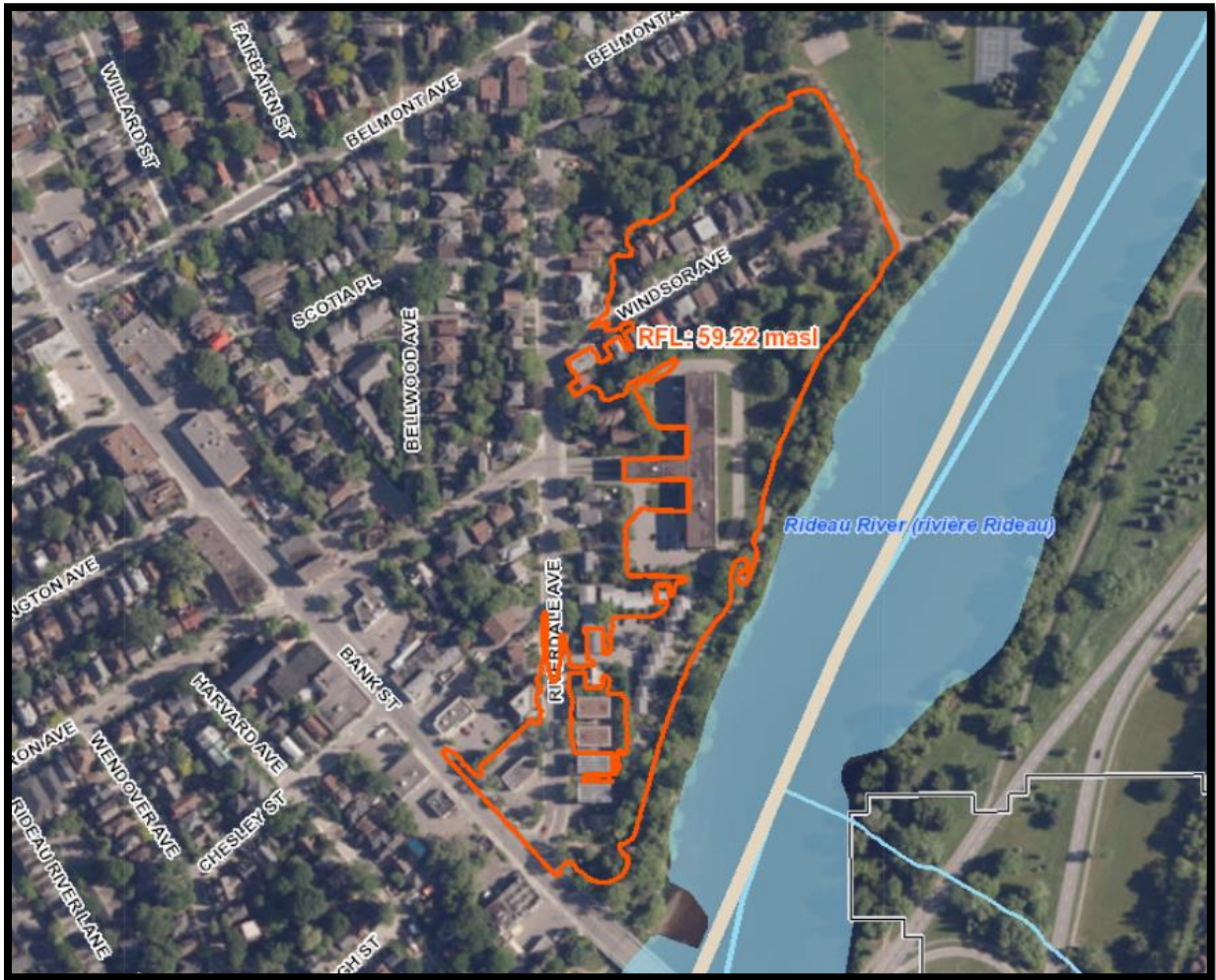
**Schedule A:** Mapping identifying approximate area of Brewer Park and Carleton University Flood Protection Area based on a regulated flood level of 59.42 metres above sea level

5.1.2 Britannia Village Flood Protection Area



**Schedule B:** Mapping identifying approximate area of Britannia Village Flood Protection Area based on a regulated flood level of 60.74 metres above sea level

### 5.1.3 Warrington Drive and Windsor Park Flood Protection Area



**Schedule C:** Mapping identifying approximate area of Warrington Drive and Windsor Park Flood Protection Area based on a regulated flood level of 59.22 metres above sea level